School of Marketing

Curtin Business School

Consumer Acceptance and Response to SMS Advertising

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This thesis is presented for the degree of the

Master's of Philosophy

of

Curtin University

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DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signed   25/03/2011

ABSTRACT

The rising market penetration of the mobile phone and rapid increase in wireless technology represent significant opportunities for advertisers to reach consumers. Mobile phone advertising has emerged as one of the fastest growing advertising mediums in recent times, and this rise is being led by Short Message Service (SMS) advertising. Despite the growing number of worldwide companies adopting SMS advertising, very little is understood about consumer reactions to this medium. In particular, little academic research has been conducted on consumers' acceptance of this medium and their behavioural responses to advertising messages. In addition, researchers have thus far been unable to identify the impact of culture on acceptance and response to SMS advertising. This research aims to bridge the gap between academic knowledge and advertising practice by testing five potential drivers of consumer acceptance of SMS advertising as well as the relationships between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural responses to SMS advertising. This research is conducted cross-nationally by comparing Australian and South Korean consumers.

In order to test the hypotheses proposed in this study, a survey instrument was developed. This instrument consists of existing scales in the literature as well as a scale developed for the purpose of this study, which measures consumers' behavioural responses to SMS advertising. Data were collected from 203 Australian and 207 South Korean consumers, from personal and online survey distribution at universities in Australia and South Korea. A series of regression analyses were conducted to test the relationships between the variables, with results compared across samples. The results from this study generally suggest that acceptance, intentions and responses to SMS advertising are similar for Australians and South Koreans. Consumers from the two samples agreed on the importance of four out of the five potential drivers of the acceptance of SMS advertising. The utility of SMS advertisements, context of SMS advertisements and attitudes to advertising in general were found to have a significant impact on the acceptance of

SMS advertising in both samples, while the control of SMS advertisements was not important in either sample. Furthermore, trust in advertisers and laws was important to South Koreans but not to Australians. These results indicate that Australian and South Korean consumers are typically not accepting of SMS advertising, unwilling to receive advertisements and respond negatively to them, while the relationships between these variables are generally strong and consistent.

The results from this study highlight the need for advertisers to design SMS advertisements carefully, containing information that is useful, contextually relevant and correctly targeted. In addition, marketers should focus on building relationships with customers and offer incentives to accept SMS advertising in order to improve negative behavioural responses. This study provides useful theoretical contributions to the field of SMS advertising, with an insight into the cross-cultural impact of SMS advertising, the development of a new scale to measure behavioural responses to SMS advertising and the application of key marketing theories.

KEYWORDS: SMS advertising, Acceptance, Australia, South Korea

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CHAPTER 1 – INTRODUCTION

Background

The great technology trend of the past 10 years has been the rise and increasing sophistication of wireless technology, leading to a shift in the way consumers use media (Friedrich et al. 2009). At the forefront of this global wireless trend is the mobile phone, which has become a necessity of everyday life for much of the modern world (Sultan and Rohm 2005). It is estimated that there is now one mobile phone for each individual in most developed countries (Leek and Christodoulides 2009), with the penetration rates exceeding that of broadband internet and cable television (Kim, Heo, and Chan-Olmsted 2010). This highlights the important role mobile phones play in day-to-day communication. Over the past decade, mobile phone technology has gone far beyond the realms of simple communication to include internet access, purchasing functions, media transfer and other applications, ushering in profound social changes (Greengard 2008). As the quality and quantity of advanced mobile services and functions progresses, consumers are becoming more engaged and attached to their mobile devices (Kim, Heo, and Chan-Olmsted 2010). Indeed, mobile phones have become more than just a communication tool; they are now a status symbol and a way for individuals to express themselves (Sultan and Rohm 2005). The increasing importance of the mobile phone as a media source seems to be driven by young consumers, who are traditionally tech-savvy (Brown 2011). The younger generation has quickly adopted mobile devices to socialise, surf the internet and download media content (Sultan and Rohm 2005). The importance of mobile phones to young consumers has been frequently highlighted, and mobile technology is now fundamental for leading a modern social life (Beaumont 2010).

Mobile penetration in the youth market in the developed world is already considered to be near 100%, and is forecast to be 300% by 2020, with potentially every youth on the planet owning three mobile devices (Brown 2011). In addition, many young consumers own multiple SIM

(Subscriber Identity Module) cards (Merisavo et al. 2007). This is most evident in technologically advanced markets such as South Korea, where the number of mobile phone subscriptions (50.5 million) has recently exceeded the population (48.8 million) (*Mobile Phone Subscriptions Outnumber People in Korea* 2010). One of the most used aspects of mobile phone technology is the Short Message Service, commonly known as SMS. SMS is a store and forward communication system (Bamba and Barnes 2007) that allows users to send alphanumeric messages to other phones (Leung 2007). It is estimated that global mobile phone users sent over 6.1 trillion SMS text messages in 2010, almost tripling in the three years from 2007, and making it the most popular mobile data service (*The World in 2010: The Rise of 3G* 2010). While many phones now have advanced capabilities well beyond simple text messaging, SMS is still the primary tool of communication among users, primarily for its ease of use, low cost and compatibility (Radder et al. 2010; Sinisalo and Karjaluoto 2009). SMS is seen as a necessity for young consumers, who use SMS far more frequently than voice telephone services to stay in contact with their social networks (Kim, Park, and Oh 2008). SMS use has been further advanced by the increasing number of contests, radio broadcasts and reality television programs that encourage response by SMS (Grant and O'Donohoe 2007; Leung 2007; Phau and Teah 2009). This use of SMS to engage in media, as well as for social communication needs and fashion desires, has resulted in SMS becoming the medium of choice for young consumers (Phau and Teah 2009).

The mobile phone network represents a significant opportunity for marketers to reach consumers, and SMS is at the forefront of these marketing activities. While this paper focuses on SMS-based advertising, mobile advertising itself is much broader, covering a range of different services and applications such as multimedia messaging (MMS), audio/video streaming, gaming, music, photography and Bluetooth (Cockrill, Goode, and White 2011; Leek and Christodoulides 2009; Merisavo et al. 2007) The ubiquitous nature of SMS-based communication has created significant opportunities for marketers to reach consumers in order to advertise as well as create relationships with the customer (Merisavo et al. 2007). An advantage of SMS advertising is that it can benefit from the "always on" trend, where consumers are in close proximity to their mobile phones for a large portion of the day. This means that the marketers' time windows for reaching

the consumer is much larger than many other media types (Okazaki and Taylor 2006). SMS technology also allows for varying interactions with the consumer, with the capability to deliver news alerts, emergency service announcements, promotional coupons and location-specific messages (Okazaki and Taylor 2006). However, the key advantage of SMS as an advertising tool is its ability to target individual consumers with highly personalised and timely advertisements. A mobile phone is rarely used by anyone but its owner, allowing for a level of personalisation that is hard to match in other media (Bauer et al. 2005), and resulting in SMS being labelled a form of direct marketing (Muk 2007a). The rise of SMS advertising has been seen throughout the world, with culture posing no barrier to the adoption of this medium by marketers (Okazaki and Taylor 2006; Muk 2007b). As with any new technology, different countries have adopted SMS advertising faster than others (Roach 2009). Developed Asian countries such as Japan and South Korea have adopted SMS advertising more quickly than western nations such as Australia and the United States (Okazaki and Taylor 2006; Choi, Juran, and McMillan 2009).

SMS advertising continues to grow along with other forms of mobile advertising, and marketers have realised the need to gain a greater understanding of consumer acceptance of the medium. A key aspect of this is determining the factors or drivers that impact on this acceptance (Heinonen and Strandvik 2003; Merisavo et al. 2007; Radder et al. 2010), as well as the relationship between acceptance, intention to receive SMS advertising and behavioural responses to advertising messages (Tsang, Ho, and Liang 2004; Jun and Lee 2007). In addition, the global nature of technology-based advertising has led marketers to seek a better understanding of the differences between cultures in the adoption of SMS advertising, particularly between developed Asian nations and western countries (Muk 2007b; Haghirian and Madlberger 2007). The continued growth of SMS Advertising, along with the proven differences in adoption of new technologies between Western and Asian countries, means the comparison of Australian and South Korean mobile phone users is a justifiable, and necessary research proposition.

Research Problems

This research aims to answer the following research problems:

What factors influence consumers' acceptance and responses to SMS advertising? Does this differ for Australian and South Korean consumers?

Leading from this, the key objectives of this research are:

1. To determine the drivers of consumer acceptance of SMS advertising (H1a–H1f);
2. To determine the relationship between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural response to SMS advertising (H2–H4);
3. To determine whether these outcomes are different for Australian and South Korean consumers (RQ1).

Overarching Theories

There are several overarching theories that support these objectives and contribute to the development of the hypotheses. These theories form the basis of this study and provide the necessary support for the hypotheses tested in this research.

The **Technology Acceptance Model** (Kavassalis et al. 2003) is significant as a core theory to this study as it provides an understanding of the process of consumer acceptance of a new technology (Davis 1989). The TAM proposes that an individual's acceptance of a new technology is determined by their attitudes towards it as well as the perceived ease of use and usefulness of the technology (Muk 2007a).

The **Diffusion of Innovation** theory also provides some understanding of consumer acceptance of an innovative technology and provides an insight into the impact of cultural differences on adoption (Rogers 1983). The theory suggests that when exposed to a new technology, an individual will choose to accept or reject the innovation based on their preferences and the perceived attributes and benefits of the technology (Rogers 1995). The theory also suggests that the rate of the adoption of a new technology will differ across various demographic, social and cultural groups, as the technology is adopted quickly by some groups and slowly by others (Rogers 1995).

Modernisation Theory is also relevant for describing the impact of culture because it explains the potential similarities in how cultures accept and respond to SMS advertising (Segall et al.

1990). Modernisation Theory describes the process by which a convergence of values can occur between traditionally collectivist and individualist societies because of technological advancement in modern economies (Segall et al. 1990).

The **Theory of Reasoned Action** (TRA) provides support to the potential relationship between acceptance, intention and behaviour in this study (Ajzen and Fishbein 1980). The TRA posits that consumers consciously decide on performing or not performing a certain behaviour, that is, any action performed is reasoned before it is undertaken (Ajzen and Fishbein 1980; Bauer et al. 2005).

Supporting Theories

A number of supporting theories and concepts also apply to the development of specific constructs within this study. Six drivers of consumer acceptance are tested in this study, and each is supported by relevant theories. The **Information Economic Model of Communication** (Kaas 1990) and **Uses and Gratifications Theory** (Katz, Gurevitch, and Haas 1973) provide a basis for the development of the first driver within this study, namely the Utility of SMS Advertisements. Utility comprises the perceived benefits of SMS advertising, such as informational value, entertainment value and usefulness. The concept of **Conditional Value** (Holbrook 1994) is used to explain the second potential driver of consumer acceptance of SMS advertising, namely the Context of SMS Advertisements. Context is the perceived value of receiving advertisements that are time- and location-specific.

Perceived Risk Theory (Schiffman and Kanuk 2000) is applied to the third driver of consumer acceptance of SMS advertising within this study, namely Sacrifice in Receiving SMS Advertisements. Sacrifice refers to the risks that consumers perceive when receiving SMS advertising. The concept of **Permission Marketing** (Godin 1999) is applied to the fourth driver within this study, namely Control over SMS Advertisements, which refers to the perceived control consumers have over receiving SMS advertisements. The driver Trust in Advertisers and Laws is supported by **Social Contract Theory**, which refers to a consumer's perceived trust in advertisers using their personal information properly. The **Theory of Cognitive Dissonance** (Festinger 1978) is applied to the final driver of consumer acceptance of SMS advertising within

this study, namely Attitudes to Advertising in General. This driver refers to the impact that attitudes to advertising in general have on the acceptance of SMS advertising. The key concepts and theories in this study are presented in more detail in Chapters 2 and 3.

Key Variables and Definitions

Acceptance of SMS Advertising refers to a consumer's opinions towards the use of SMS as an advertising tool. Acceptance can be positive or negative and refers to a consumer's overall attitudes to the advertising medium (Merisavo et al. 2007).

Utility of SMS Advertisements refers to message-related factors that may impact on the acceptance of SMS advertising. These message-related factors include perceived entertainment value and relevance or usefulness of the message to the consumer, as well as information content and monetary value (Bauer et al. 2005; Merisavo et al. 2007). Message-related factors form the total utility of a message perceived by the consumer.

Context of SMS Advertisements refers to the context within which the consumer receives an SMS advertisement that may impact the acceptance of SMS advertising. Context includes the time and place that a consumer may receive an SMS advertisement (Heinonen and Strandvik 2003; Merisavo et al. 2007).

Sacrifices in Receiving SMS Advertisements refers to the perceived sacrifices by consumers in receiving SMS advertisements that may impact the acceptance of SMS advertising. These perceived sacrifices of receiving SMS advertisements include risks relating to annoyance, irritation, unsuitability and loss of privacy (Grant and O'Donohoe 2007; Merisavo et al. 2007).

Control of SMS Advertisements refers to the perceived control that consumers have over SMS advertising, which may impact on the acceptance of SMS advertising. This refers to the perceived control that consumers have over the number and types of SMS advertisements they receive (Khan and Allil 2010; Merisavo et al. 2007).

Trust in Advertisers and Laws refers to consumer trust, which may impact on the acceptance of SMS advertising. This refers to the importance consumers place on trusting an advertiser to not misuse personal information they have provided, and also trust in anti-spam laws and regulations that protect the consumer (Basheer and Ibrahim 2010; Merisavo et al. 2007).

Attitudes to Advertising in General refers to a consumer's opinions of advertising in general, which may impact on the acceptance of SMS advertising. Consumer attitudes to advertising can be defined as "*a learned predisposition to respond in a consistently favorable or unfavorable manner to advertising in general*"(Lutz 1985). Advertising in general refers to the broad notion of advertising in a variety of traditional and non-traditional media, including broadcast, print and internet advertising (Bauer et al. 2005).

Intention to Receive SMS Advertising refers to a consumer's willingness to receive SMS advertisements. Intention to receive SMS advertisements is generally measured by the number of SMS advertisements that consumers are willing to receive in a given period of time (Tsang, Ho, and Liang 2004).

Responses to SMS Advertising refers to a consumer's actual behavioural response after an SMS advertising message has been received. These behavioural responses may include negative responses such as ignoring or deleting an advertising message or positive responses such as reading, purchasing or subscribing (Barnes 2002; Tsang, Ho, and Liang 2004).

Significance of the Study

The findings of this study make a range of significant theoretical, methodological and managerial contributions to the field of SMS advertising.

Theoretical/Conceptual Contributions

- Builds on the body of knowledge in SMS advertising research and provides an insight into the acceptance, intention and response to SMS advertising, which is still under-researched despite the growth of SMS as an advertising medium.
- Empirically generalises constructs developed by other researchers by applying them in a new context.
- Applies popular academic theories to SMS advertising research, including the TAM (Davis 1989), Diffusion of Innovation theory (Rogers 1995) and TRA (Ajzen and Fishbein 1980).

Methodological Contributions

- Creates a thorough and exhaustive scale to measure consumers' behavioural responses to SMS advertising, which is lacking in the literature.
- Conducts a cross-national study between Australian and South Korean consumers, an important contribution to cross-national SMS advertising research, which lacks significant cultural comparisons.

Managerial Contributions

- Provides direction to businesses using or considering SMS advertising in their marketing mixes.
- A cross-national study is particularly relevant to multinational corporations operating in the international mobile advertising industry.
- Allows managers to better understand the factors that affect consumer acceptance of SMS advertising and how acceptance relates to intention to receive advertisements and the behavioural responses to these advertisements.
- This is particularly relevant to government authorities that create legislation and monitor spam SMS advertising by providing a consumer's point of view on permission and privacy issues.

Justification of the Study

Theoretical Significance

This study provides important theoretical contributions to the field of SMS advertising, which are valuable to academic researchers of mobile advertising. This study enhances overall knowledge in the field of SMS advertising, which is still under-researched despite the growth of the medium. This study generalises and further validates those constructs developed in previous research. In particular, this study builds on the work of Merisavo et al. (2007), who first created a Drivers of Consumer Acceptance Scale. This study highlights that the Drivers of Consumer Acceptance scale is a valid and reliable measure when used at a different time and within different contexts.

In addition, this study applies popular marketing theories to the study of SMS advertising, and further highlights the appropriateness of applying popular marketing theories and concepts to the study of SMS advertising.

Lack of SMS Research

Despite the growing popularity of the medium, SMS advertising has received relatively little attention from academic researchers, and while some empirical work has been conducted, little is known about the marketing potential of this growing medium (Merisavo et al. 2007). The vast majority of research has been conducted on the broader field of mobile advertising in general, which is useful for providing an overview of the mobile advertising industry, but not directly applicable to the more specific field of SMS advertising. This lack of research has highlighted the need for further empirical studies in the area, particularly research that applies key academic theories (Jun and Lee 2007; Okazaki and Taylor 2006). Of the limited amount of research into SMS advertising, even fewer studies have focused on consumer acceptance of the medium (Merisavo et al. 2007; Zhang and Mao 2008), which is considered to be an important factor in determining campaign success (Heinonen and Strandvik 2003). In addition, little is known about consumers' intentions to receive SMS advertising, or their behavioural responses to advertising messages once received, and the relationship between these important constructs (Tsang, Ho, and Liang 2004).

In addition, very little research has been conducted into SMS advertising in an Australian context. The majority of studies conducted on SMS advertising have been undertaken on European (Muk 2007a; Bamba and Barnes 2007), American (Jun and Lee 2007; Peters, Amato, and Hollenbeck 2007) and Asian (Kim, Park, and Oh 2008; Zhang and Mao 2008) consumers. In addition, some research has been undertaken on Middle Eastern (Basheer and Ibrahim 2010), African (Radder et al. 2010) and New Zealand consumers (Maneesoonthorn and Fortin 2006). This study will help bridge the gap between knowledge in Australia compared with other significant mobile markets. Furthermore, a cross-national study that includes the Australian perspective on SMS advertising does not exist, and this study will shed some light on the differences between Australian consumers and those from other nations.

Behavioural Responses to SMS Advertising

This study aims to create an exhaustive scale to test consumers' behavioural responses to SMS advertising. Consumers' behavioural responses to SMS advertising are not properly understood in the literature, with existing scales made up of a range of different items that are neither

exhaustive nor applicable to other contexts. The scale developed for this study will contribute significantly to the current literature, and it provides a key justification for the current research. In addition, the cross-national nature of this study allows this newly created scale to be tested in a new context.

Research Methods

Research Design

This study uses an exploratory research approach to determine the drivers of consumer acceptance, intention to receive and responses to SMS advertising within the Australian and South Korean contexts. This research conducts a cross-national survey of young Australian and Korean consumers, aged 18–44. This demographic has been identified in the literature as being most familiar with mobile technology, and therefore most likely to have received SMS advertisements (Phau and Teah 2009). This study uses a quantitative research approach and a non-probability convenience sampling method. This is conducted with minimal interference from researchers and in a non-contrived setting, which is most appropriate for this method (Sekeran 2003). The survey instrument is constructed from a variety of sources and it consists of five sections. The first section contains screening questions to determine the consumer's use of mobile phones and SMS. The second section contains questions relating to the intention to receive SMS advertisements and responses to those advertisements. Section 3 contains questions relating to attitudes to advertising in general, while section 4 relates to the drivers of acceptance. Finally, section 5 contains questions designed to collect demographic information. The survey instrument is initially drafted in English and professionally translated into Korean for respondents in Seoul. The responses will be professionally back translated into English to ensure reliability, validity and linguistic equivalence (Bhalla and Lin 1987).

Data Collection

This study collects responses using a mixed mode method via a self-administered questionnaire. Questionnaires are distributed at university campuses in Perth, Australia and Seoul, South Korea, in addition to email surveys distributed within each country. Approximately 200 responses are collected for each sample.

Scales and Items

The scales and measures used are adapted from a variety of sources. Consumer acceptance of SMS advertising is measured using a scale adapted from Merisavo et al. (2007) and Elliot and Speck (1998). Intention to receive SMS advertising is measured using a scale replicated from Tsang, Ho and Liang (2004). Behavioural responses to SMS advertising are measured using a new scale specifically created for this research. This scale is created by adapting items from similar scales and identifying new items through extensive research and rigorous testing.

Data Analysis

The data collected in this study are analysed using the Statistical Package for the Social Sciences (SPSS) software. Reliability and validity testing, using factor analysis and Cronbach's coefficient alpha, are first conducted on the relevant scale items within the study. Regression analysis is used to test the drivers of consumer acceptance of SMS advertising and the relationship between acceptance, intention and response. A mediation analysis, using the Baron and Kenny (1986) method and Sobel (1982) test, is conducted on the relationship between acceptance, intention and response. For the cross-national component of this study, all hypotheses are revisited using the same methods, and any differences between the results are discussed.

Scope of the Study

This study focuses on SMS advertising and does not include other areas of mobile advertising, such as MMS, Bluetooth or internet browsing, although these constructs would be applicable for use in future studies. In addition, the findings may not directly apply to other Mobile Commerce (M-Commerce) applications such as mobile shopping or gaming (Peters, Amato, and Hollenbeck 2007). This study takes a broad view of SMS advertising in general and does not consider the impact of specific types of SMS advertisements on acceptance and response to SMS advertising. This study aims to determine the drivers of the acceptance of SMS advertising and intentions and responses from the consumer's point of view, and thus it may not be reflective of an organisation or advertiser's point of view. Finally, the geographic scope of this study is limited to Australia and South Korea.

Concluding Comments and Outline of this Thesis

This thesis is divided into seven chapters. The first chapter provides an introduction and outline of the discipline of SMS advertising. This chapter also describes the research problem and gives an overview of the key theories and concepts that will be explored in this study, as well the contributions it makes. This chapter also provides a justification for this study and outlines the research methods used. Finally, the scope of this study is provided.

Chapter 2 analyses in detail the discipline of SMS advertising, describing previous research into the area of SMS advertising and highlighting similarities and differences in the literature. The main concepts relevant to the research problem are also described. After a review of the literature, Chapter 3 details the theoretical framework for the study. This section describes in detail the key theories and concepts that are relevant to this study. Chapter 3 also presents a conceptual model and lists the hypotheses drawn from the literature review.

Chapter 4 discusses the research methodology for this study and the procedures that are followed. This chapter will provide details about design, sampling, scales, proposed analysis and ethical considerations. Following this section, Chapter 5 details the analysis of data obtained from respondents and reports the findings from this analysis.

Chapter 6 discusses these findings in more detail, revisiting the hypotheses and objectives of the study. This chapter also offers explanations and draws comparisons with the other studies in the broader literature. Finally, Chapter 7 concludes the thesis, detailing the managerial and theoretical contributions of this study, as well as limitations and directions for further research.

CHAPTER 2 – LITERATURE REVIEW

Introduction

The previous chapter introduced and outlined the thesis, while this chapter aims to provide a review of the relevant literature. This literature review begins with a broad look at the M-Commerce industry and research, before narrowing to the field of mobile advertising, and finally the specific field of SMS advertising. In exploring the background of SMS advertising, this review looks at the origins and current practices in the SMS advertising industry and explains previous research into the effectiveness of SMS advertising. This review then aims to critically analyse the SMS literature that is relevant to the variables within this study. Focus is placed on the literature surrounding the key drivers of the acceptance of SMS as an advertising tool, the relationship between Acceptance of SMS advertising, Intention to receive SMS Advertising and Behavioural Response to SMS advertising, as well as cross-national implications. Finally, this review identifies current gaps in the overall literature, which forms the basis for the justification of the proposed research topic. A flow chart outlining the organisation of this literature review is shown in Figure 1.

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│  2. Intention to Receive and Behavioural Responses to SMS  │
│     Advertising                                            │
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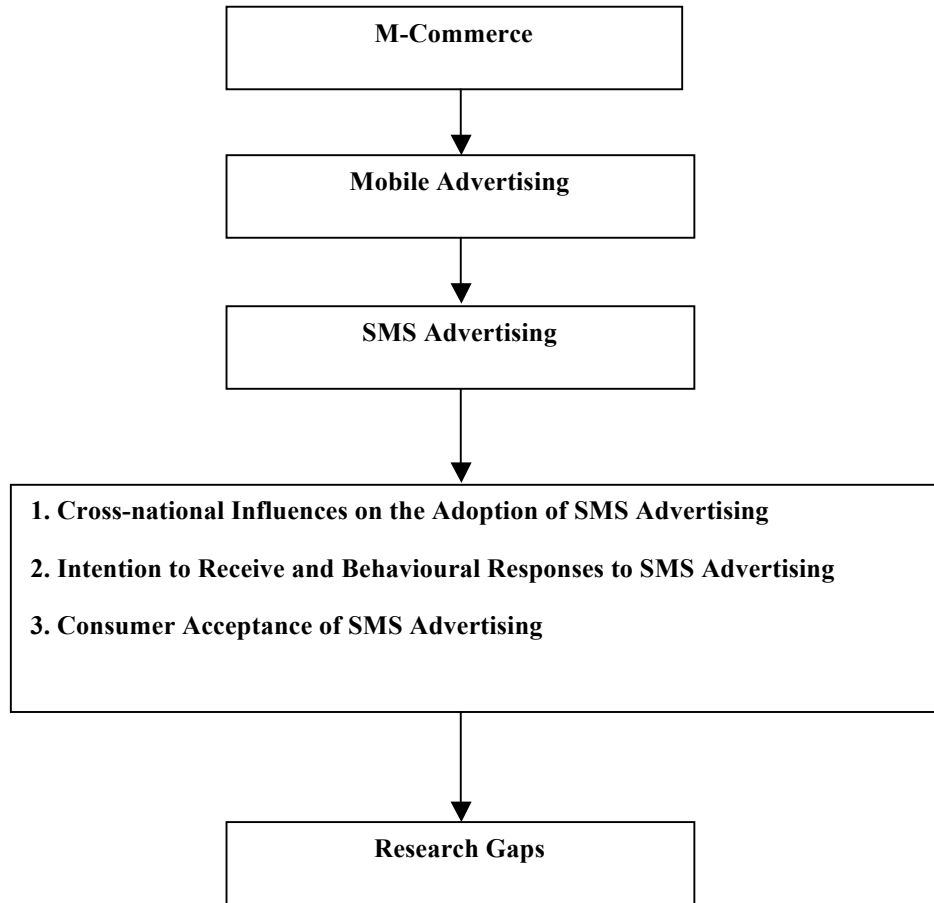
M-Commerce

SMS advertising is only one part of the mobile advertising industry, albeit the most popular component (Bauer et al. 2005). Mobile advertising itself falls into the broad category of M-Commerce. According to Peters, Amato and Hollenbeck (2007), M-Commerce includes mobile advertising, shopping, payment systems, banking, emergency services and game playing, among other applications. Recently, the convergence of telephone and internet technology has allowed for the continued growth of the M-Commerce industry, and this has seen the introduction of a variety of innovative services such as mobile television (Sinisalo and Karjaluoto 2009). The M-Commerce industry, aided by technological advances and driven by the youth market, is

expected to be worth more than $100 billion in 2012, which, according to a Juniper research report, is more than double the revenue generated in 2010 (Wilcox 2010).

M-Commerce Research

Despite this growth and recent developments in M-Commerce, research in the area is still in its infancy (Maneesoonthorn and Fortin 2006), and much of the early literature focuses on disciplines such as computer science and management information systems (Malloy, Varshney, and Snow 2002). Academic research into M-Commerce is less than 10 years old, and much of the existing research has focused on establishing frameworks that form the foundation for the field of study (Hanley and Becker 2008). The earliest paper in the area, written by Balasubramanian, Peterson and Jarvenpaa (2002), discussed the advantages of M-Commerce in terms of flexibility of space and time. Many studies have also focused on consumer acceptance of M-Commerce applications (Bauer et al. 2005; Dholakia and Dholakia 2004; Koenig-Lewis, Palmer, and Moll 2010; Peters, Amato, and Hollenbeck 2007). The findings from these studies indicate that trust and permission are vital in consumer adoption of M-Commerce applications, providing an insight into the considerations marketers need to make when sending wireless advertising messages to consumers (Bamba and Barnes 2007; Barnes and Scornavacca 2004). Other studies have highlighted the important aspects of M-Commerce (Sinisalo and Karjaluoto 2009), identifying the ability to make purchases, access news, subscribe to services and pay bills as the most relevant applications to consumers (Siau and Shen 2003).

Further studies of the broad area of M-Commerce have proposed some relevant theoretical applications. For example, Barnes (2002) highlights how value is added to activities involved in providing M-Commerce to the consumer. From this research, Barnes (2002) proposes a mobile business value chain constructed of seven links. Other empirical studies in the area have identified wireless internet service values (Anckar and D'Incau 2002), demographic influences such as age, gender and academic qualifications on M-Commerce adoption (Gilbert, Lee-Kelley, and M 2003), consumer expectations of mobile services and products (Carlsson and Walden

2007) and the impact of smartphones on M-Commerce service usage (Sinisalo and Karjaluoto 2009).

While some researchers have developed relevant underlying theories, the broad majority of studies conducted in the field have applied popular existing marketing theories to the discipline. In an attempt to build models more relevant to M-Commerce, researchers have leveraged theories from more traditional forms of advertising, including internet advertising (Hanley and Becker 2008). One common application is the TAM (Kavassalis et al. 2003), an information systems theory (Peters, Amato, and Hollenbeck 2007) that is an extension of Ajzen and Fishbein's (1980) TRA. The TAM proposes that an individual's intention to use a new technology is determined by their attitudes towards it as well as their beliefs about its perceived usefulness and ease of use (Muk 2007a). Other relevant theories include Diffusion of Innovation (Rogers 1995), the Expectation (dis) Confirmation model (Bhattacherjee 2001) and the Media Uses and Gratifications model (Katz, Gurevitch, and Haas 1973). The application of these theories is discussed in further detail in the theoretical framework.

Mobile Advertising

As M-Commerce has evolved over recent years, wireless mobile advertising has become an important source of revenue for the industry (Bauer et al. 2005). The Mobile Marketing Association define mobile marketing as "*The use of wireless media as an integrated content delivery and direct response vehicle within a cross media or stand-alone marketing communications program*" (*Mobile Marketing Association* 2007). Mobile advertising continues to grow with the convergence of internet and telephone services (Maneesoonthorn and Fortin 2006), and it could generate global annual revenue exceeding $7 billion by 2013 (Wilcox 2010). The increasing focus of advertisers on mobile platforms is being driven by the world's largest technology companies, with Apple and Google both recently developing mobile advertising platforms, and competing head to head for the largest slice of the market (Alleven 2011).

Owing to the development of new wireless technology, the rapid diffusion of mobile phone use throughout the world and the increasing attention of advertisers, mobile advertising is becoming a "hot topic" (Maneesoonthorn and Fortin 2006). Mobile phones are highly personalised and therefore present marketers with the opportunity to send offers at the right time to the right consumer (Bauer et al. 2005). Mobile advertising is a relatively broad concept, with many different applications such as internet browsing (Varshney and Vetter 2002), media downloads (Nysveen, Pedersen, and Thorbjorsen 2005), Bluetooth (Leek and Christodoulides 2009), MMS (Cheng et al. 2009) and, of course, SMS, which is the most popular application and the focus of this study (Cheng et al. 2009; Merisavo et al. 2007).

Previous studies of wireless advertising have categorised mobile advertising into two basic types, namely push and pull (Barnes 2002; Varshney and Vetter 2002). Pull advertising in the mobile context typically involves placing advertisements on wireless browsing content, such as mobile internet applications, games and other media downloads, whereby consumers will browse to them (Barnes 2002). Push advertising refers to sending advertising messages to consumers, usually after receiving prior approval from recipients (Barnes 2002; Hanley and Becker 2008). SMS advertising therefore falls into the push category, and it is considered to be a form of direct marketing (Maneesoonthorn and Fortin 2006). SMS advertising is by far the most popular and profitable form of mobile advertising (Basheer and Ibrahim 2010; Sinisalo and Karjaluoto 2009). By using the demographic information collected by mobile service providers, marketers are able to promote goods and services through personalised messages sent directly to the consumer (Grant and O'Donohoe 2007; Varshney and Vetter 2002).

SMS Advertising

SMS and the IMC Mix

SMS has been primarily used as a tool to communicate between social networks (Leung 2007). However, industries do use the technology in day-to-day business by sending relevant information to customers, providing invoices and adopting parcel tracking systems (Leung and Wei 2000; Merisavo et al. 2007; Phau and Teah 2009). SMS has also been used effectively in

political campaigns, most notably by Barack Obama in the 2008 United States presidential election campaign, where SMS was used as a tool to notify subscribers of rallies and other events (Owen 2008). From a commercial perspective, marketers are beginning to see the value of advertising their products and services via SMS (Sultan and Rohm 2005). SMS advertising is currently used in a variety of markets and industries, although it is most common in the fast-moving consumer goods sector. Early on, global brands such as McDonalds, Coca Cola, Dunkin Donuts, Nike and Adidas realised the potential for SMS marketing, and these companies have implemented SMS advertising into their marketing communication mix (Grant and O'Donohoe 2007; Peters, Amato, and Hollenbeck 2007).

SMS is a simple communication method that lacks the high context content of other forms of advertising, and therefore advertisers have focused on delivering messages that add value for the consumer rather than simply contain a branding message. In past campaigns, consumers have been sent coupons or other promotional offers, as well as being invited to enter sweepstakes or other competitions (Muk 2007a). Past SMS campaigns have also prompted consumers to send codes promoted by the company on its products in exchange for vouchers. Therefore, the consumer receives something of value and the advertiser gains a customer (Muk 2007a). At the cutting edge of SMS advertising, providers incorporate GPS technology into mobile phones, targeting customers with timely information in specific locations. For example, Japanese agencies are transmitting local restaurant advertisements on public transportation by using electronic boarding passes to detect a person's final destination, and then sending them advertisements relevant to that destination (Okazaki and Taylor 2006). Table 1 includes some examples of recent SMS advertising campaigns.

Table 1: Recent SMS Advertising Campaigns

Company/Brand	Country	Campaign Type	Campaign Details
Dunkin Donuts	Italy	Coupon	Consumers sent SMS messages to phone numbers published on billboards in exchange for special offer coupons (*Plus One: How SMS*

			is building business 2011).
McDonalds	Australia	Coupon/Competition	Consumers received SMS vouchers after entering a local radio competition (*Plus One: How SMS is building business* 2011).
Nestle	US	Instant win competition	Consumers texted their personal details to a promotional number placed on flavoured milk packaging for instant win prizes (*Plus One: How SMS is building business* 2011).
Haiti Earthquake Appeal	UK	Donation appeal	Mobile users texted "GIVE" to a special phone number, UK mobile providers donated 5 cents to the earthquake charity (Murphy 2010)
Procter & Gamble	UK	Free sample	Television advertisement for washing powder brand encouraged viewers to text for a free sample (*The Book of Lists: The 10 Best SMS Campaigns* 2003)
Ford	Belgium	Competition	Mobile users were encouraged to enter a competition by texting their names to a phone number listed on an interactive billboard (*Ford Fiesta ad campaign combines interactive billboard with SMS* 2004)

While SMS advertising has become a useful tool for marketers, the lack of knowledge and trust of the medium has seen it used sparingly, and largely tailored towards the youth segment (Grant and O'Donohoe 2007). Furthermore, campaigns rarely use SMS as their main medium, rather as a tool to reinforce more traditional channels such as internet, print and broadcast media (Jacobs 2010; Zhang and Mao 2008).

Effectiveness of SMS Advertising

The initial studies of SMS-based campaigns reported conflicting results as to whether SMS is an effective advertising medium. Some studies have indicated that SMS advertising generates higher response rates than other media, including internet banner ads and direct mail (Merisavo et al. 2007; Zhang and Mao 2008). It has generally been noted that SMS has received far higher response rates than other forms of direct marketing (Basheer and Ibrahim 2010). One such study, conducted by Timpson and Troutman (2009), found that consumers were much more likely to view SMS advertisements than email advertisements. Further research has also uncovered results in favour of SMS advertising. For example, a pioneer study conducted by Barwise and Strong (2002) involved sending recruited respondents over 100 advertisements in a six-week period. The results were encouraging for advertisers, with 81% of respondents reading all messages and 84% forwarding to friends. Other studies have found that SMS advertising results in positive brand awareness (Barnes 2002), is an excellent communicator of brand value (Barnes and Scornavacca 2004), and is better at targeting the youth market than other media (Maneesoonthorn and Fortin 2006).

Research has suggested that SMS is able to form a strong communication tie with the consumer, similar to personal communication, and generates positive word of mouth (Okazaki 2009). By contrast, researchers have found that consumers give a lukewarm response to SMS advertising, especially when used in excess (Grant and O'Donohoe 2007). Consumers have also proven to be weary of being heavily charged to download mobile content (Phau and Teah 2009), presenting the need for a cautious attitude in the use of SMS advertising (Okazaki and Taylor 2006). A major criticism by researchers of the effectiveness of SMS advertising is the limited content

capability of the medium. Advertisers may only send short messages in the form of letters and numbers, leading some researchers to highlight the limited potential and utilisation of the medium (Sinisalo and Karjaluoto 2009).

The variation in campaign results and differing opinions of researchers as to the effectiveness of SMS advertising can be explained by the notion that it seems to work differently for different market segments. Furthermore, the success of a campaign or message is highly dependent on the nature of the advertisement as well as the advertised product (Merisavo et al. 2007). In light of the arguments on the positives and negatives of SMS advertising, several factors for the success of SMS campaigns have been put forward in various studies. Common factors impacting on the effectiveness of SMS advertising found in the literature include targeted messages (Barnes 2002), relevant messages (Barwise and Strong 2002; Dickinger et al. 2004; Tsang, Ho, and Liang 2004), valuable content (Barwise and Strong 2002; Carroll et al. 2007; Kim, Park, and Oh 2008; Peters, Amato, and Hollenbeck 2007) and context/time awareness (Bamba and Barnes 2007; Jun and Lee 2007; Merisavo et al. 2007).

Consumer Acceptance of SMS Advertising

In recent times, consumer acceptance of advertising has gained considerable importance in advertising research, helping provide insights into the potential success or failure of new advertising media (Bauer et al. 2005). This has been extended to the study of SMS advertising, and as more consumers become exposed to the growing practice of SMS advertising, their acceptance of this medium is becoming increasingly important to a campaign's success (Cheng et al. 2009; Heinonen and Strandvik 2003; Merisavo et al. 2007). As mobile marketing is still a relatively new concept, most consumers have not yet made a decision to use or adopt this innovation (Bauer et al. 2005). According to Bauer et al. (2005), it is difficult to effectively measure adoption or the usage-based acceptance of mobile advertising. Instead, studies should focus on forecasting acceptance by measuring consumer attitudes towards acceptance. A substantial portion of the literature on SMS advertising focuses on consumer attitudes and acceptance (Merisavo et al. 2007), and this is also the focus of the present study. The majority of

the literature on the acceptance of SMS advertising places a spotlight on the factors or drivers that influence acceptance, although one pioneering study conducted by Rettie, Grandcolas and Deakins (2005) looked at broad acceptance over a range of SMS campaigns. Their study analysed 26 SMS advertising campaigns, finding that 44% of consumers deemed SMS advertising very or fairly acceptable, with only 21% finding it very or fairly unacceptable (Rettie, Grandcolas, and Deakins 2005). The results from this study suggest that consumers are relatively accepting of SMS as an advertising medium.

Consumer acceptance of advertising in general has been well researched in the marketing literature. Early surveys of consumer acceptance showed positive results towards advertising, with consumers finding advertising informative (Schiffman and Kanuk 2000). However, public opinion has become more negative in recent times, possibly owing to advertising saturation in mature markets (Chowdhury et al. 2006; Muk 2007a). It is true that most media are advertiser supported, which leads to the advertising saturation of traditional mass media, a reduction in advertising effectiveness and declining consumer acceptance (Ha and Litman 1997). Studies have focused on the attitude structures of different media, highlighted by a study of popular media that analysed attitudes towards TV, broadcasting, magazines, newspapers, yellow pages and direct mail (Elliot and Speck 1998). The results of this study demonstrated how the various types of media impact differently on consumer attitudes. It was discovered that advertising clutter, hindered search and disruption were found to negatively impact on attitudes to advertising across all media. It was also found that television and magazine advertising received the highest levels of advertising-related communication problems (Elliot and Speck 1998). Clutter within traditional media has led advertisers to shift their attention to new, presumably less cluttered advertising media, such as mobile marketing (Newell and Meier 2007).

Drivers of Consumer Acceptance of SMS advertising

As indicated above, a substantial portion of studies into the acceptance of SMS advertising have focused on the drivers of acceptance. Researchers tend to agree on the broad issues that are important in determining consumer acceptance of SMS advertising, although there is some

disagreement as to the relative importance of each issue (Maneesoonthorn and Fortin 2006). Most researchers agree that the nature of an advertising message, the context within which it is received, consumer sacrifices, control and privacy are the key concepts that need to be taken into consideration when determining acceptance (Bauer et al. 2005; Nysveen, Pedersen, and Thorbjorsen 2005; Pura 2005; Radder et al. 2010; Tsang, Ho, and Liang 2004). Indeed, the constructs that determine the acceptance of SMS advertising closely reflect the factors for the effectiveness of the SMS advertisement. This can be explained by the idea that acceptance is typically seen as an indicator of the effectiveness of advertising in general (Jun and Lee 2007; Phau and Teah 2009).

Utility of SMS advertisements

A number of studies have identified the importance of the nature of the advertising message and the perceived utility of SMS advertising in the eyes of consumers (Bauer et al. 2005). The utility of an advertisement comprises message-related factors such as entertainment value, information content, relevance and usefulness (Merisavo et al. 2007). For instance, some researchers have promoted the entertainment value and perceived enjoyment gained from SMS advertisements as having an impact on attitudes, and therefore on the likeliness to accept SMS advertising (Basheer and Ibrahim 2010; Bauer et al. 2005; Chowdhury et al. 2006; Dickinger et al. 2004; Kavassalis et al. 2003; Krishnamurthy 2001). For example, Scharl, Dickinger and Murphy (2005) found that funny and entertaining messages that were well targeted were most likely to influence consumer purchase intention towards advertised products. In addition, Krishnamurthy (2001) found that acceptance and attitudes towards SMS advertising increased by exposing them to interactive games, thus increasing familiarity with the advertised product. A similar study conducted by Bauer et al. (2005) also suggested that entertainment value was a strong driver of mobile advertising acceptance and noted that favourable attitudes to mobile advertising were more likely if a message was creatively designed or entertaining.

In addition to entertainment, researchers have focused on the nature of the information within the advertising message. These studies suggest that if the message content is seen as relevant

(Maneesoonthorn and Fortin 2006; Nasco and Bruner 2008), informative (Carroll et al. 2007) or useful (Basheer and Ibrahim 2010; Kim, Park, and Oh 2008), consumers are likely to be more accepting of SMS advertising. The broad consensus in the literature suggests that if the advertising content is valuable in the eyes of the consumer, favourable attitudes towards the medium are more likely to be formed, and the advertisement is more likely to be accepted (Merisavo et al. 2007).

Monetary incentives have also been found to add value to SMS advertising and further impact consumers' decisions to accept SMS advertising (Hanley and Becker 2008). Monetary value, in this context, can be described as good value for money in comparison to promotional material offered in alternative advertising media (Pura 2005). Consumers may receive monetary value through SMS advertising in a variety of ways, including coupons, rebates, contests and prize packs (Drossos and Giaglis 2005; Hanley and Becker 2008). Pura (2005) found that monetary value had a strong influence on intention to use mobile advertising, as it offers consumers instant access to products or services that may be good value. According to the literature, when consumers are presented with benefits such as entertainment value, information value or monetary value within a message, they are more likely to have favourable attitudes towards advertising (Ajzen and Fishbein 1980) and accept it. As a form of advertising, the same can be said for SMS advertising (Jun and Lee 2007). According to Merisavo et al. (2007), important factors such as entertainment value, information content, relevance and usefulness collectively form the total utility, or use, that consumers perceive in SMS advertising.

Context of SMS Advertisements

A common theme in the literature that is seen to impact SMS advertising acceptance is the notion of context. Context, in the mobile advertising literature, refers to the consumer receiving information that is time- and location-specific (Heinonen and Strandvik 2003). An advertising message can be made contextually valid by identifying the location of a single consumer at a specific point in time, for example, the sending of a shoe voucher while passing by a shoe store (Heinonen and Strandvik 2003). This contextually specific form of advertising has been found to

add value for the consumer, and it is referred to as "conditional value" in the literature, occurring only within a specific situation (Holbrook 1994; Merisavo et al. 2007).

Several related studies have identified the value consumers place on the utilisation of time and place (Heinonen and Strandvik 2003; Merisavo et al. 2007; Pura 2005). For example, a study by Pura (2005) into location-based SMS advertising found context to be the single most important factor in determining behavioural intention to use SMS advertising, with consumers often making mobile-based decisions spontaneously and based on situational needs. Similarly, Merisavo et al. (2007) highlighted the importance of sending context-relevant messages, finding the time/place awareness of the advertiser to be one of the strongest drivers of consumer acceptance of SMS advertising.

Other research has focused on the concept of personalisation when sending SMS advertising messages (Ho and Kwok 2003). This involves consumers providing more extensive personal details in order to reduce the number of irrelevant advertisements and thus increase the chance of favourable attitudes towards the medium (Barwise and Strong 2002; Ho and Kwok 2003; Maneesoonthorn and Fortin 2006). Ho and Kwok (2003) found that customers were willing to change to a new service provider with more personalised services in order to stop receiving poorly targeted mobile advertisements. Furthermore, Barwise and Strong (2002) found that the personal nature of the mobile phone meant that consumers expected their advertising messages to be personalised, and highly targeted messages were more likely to result in favourable consumer attitudes.

Sacrifices in Receiving SMS Advertisements
Some researchers have focused on the perceived risks that consumers experience when dealing with SMS advertisements. According to Radder et al. (2010), the perceived risks associated with SMS advertising are high, as consumers lack experience and information about the medium and a relatively new technology is involved. Risks relating to irritation and receiving unwanted

messages represent the sacrifice that consumers perceive in receiving SMS advertising. A common theme in the literature suggests that the acceptance of SMS advertising is greatly influenced by the level of perceived annoyance and irritation of an advertising message (Grant and O'Donohoe 2007; Hanley and Becker 2008; Peters, Amato, and Hollenbeck 2007). For example, Grant and O'Donohoe (2007) found that young consumers perceive mobile communication as a purely social tool, and any attempt to commercialise this medium was met with thoughts of irritation, intrusion and mistrust. Studies such as these have reminded marketers that, while they see the mobile phone as a "brand in the hand" (Sultan and Rohm 2005) and a potential advertising phenomenon, consumers may be less enthusiastic about advertising via this medium. These findings in the area of mobile advertising are also supported by a general consensus in the broader advertising literature (Grant and O'Donohoe 2007; Bamba and Barnes 2007; Tsang, Ho, and Liang 2004; Ducoffe 1995). This consensus suggests that advertisements that annoy (Tsang, Ho, and Liang 2004), offend (Chowdhury et al. 2006) or are excessively manipulative (Ducoffe 1995) are likely to be perceived negatively by consumers, and therefore impact on their acceptance of an advertising message. The perceived risk of irritation when receiving an advertising message, therefore, represents a disadvantage of SMS advertising in the eyes of the consumer, and this may deter them from accepting the medium as a legitimate advertising tool (Merisavo et al. 2007).

Control Over SMS Advertisements

The literature has shown that consumer acceptance of SMS advertising considerably influences the perceived control that consumers have over the number and types of SMS advertisements they receive (Bamba and Barnes 2007; Barnes and Scornavacca 2004; Bauer et al. 2005; Carroll et al. 2007; Dickinger et al. 2004; Grant and O'Donohoe 2007; Hanley and Becker 2008; Krishnamurthy 2001; Maneesoonthorn and Fortin 2006; Merisavo et al. 2007). This issue of control relates to the notion of permission and privacy. The vast majority of studies of the topic have concluded that consumers would be more likely to accept SMS advertising if permission was given prior to communication (Merisavo et al. 2007). For example, Rettie and Brum (2001) found that the majority of consumers were concerned about unsolicited text messages and that they would generally like to receive messages after permission was given, a finding supported by

Leppäniemi and Karjaluoto (2005), who listed control over messages as a key factor in determining consumer acceptance of the medium. In addition, a recent Japanese study found that consumers with prior negative experiences with information privacy were more likely to express high levels of privacy concerns over mobile advertising (Okazaki, Li, and Hirose 2009).

In Australia and in many other developed countries, SMS advertising is regulated to prevent unsolicited messages (Bueti 2005). In Australia, illegal spam SMS messages seem to be on the rise, with over 6000 official complaints or reports of illegal spam messaging in 2010, a 58% increase from the previous year (*Australian Communications and Media Authority: Communcations Report 2009-10* 2010). This notion of permission has important implications for other drivers of consumer acceptance, which may become more or less important if permission is given prior to communication (Merisavo et al. 2007). While there is disagreement about the value of other determinants in the literature (Maneesoonthorn and Fortin 2006), permission and privacy have consistently been included as constructs that determine consumer acceptance of this medium as an advertising tool (Bauer et al. 2005). The likely reason for the importance of this issue is that the public has become increasingly skeptical about the intentions of marketers and advertisers (Merisavo et al. 2007). The privacy variable is such an important consideration for SMS advertisers that consumers may choose to delete ads or even switch providers if they deem ads to be too intrusive (Grant and O'Donohoe 2007). Additionally, users of SMS have been found to want control over the types and number of SMS advertisements they receive (Khan and Allil 2010). This notion supports the view that messages should be highly targeted and that advertisers should avoid sending mass, impersonal SMS advertising messages (Barnes and Scornavacca 2004; Basheer and Ibrahim 2010; Carroll et al. 2007; Grant and O'Donohoe 2007).

Trust in Advertisers and Laws

In addition to control over advertisements, the literature has shown that consumers' trust in advertisers plays an important role in the acceptance of SMS advertising. Research has shown that if consumers believe the personal data they provide to marketers will not be misused, they

are more likely to accept SMS advertising (Merisavo et al. 2007). Trust is particularly an issue when perceived risk and uncertainty is high, as is potentially the case with SMS advertising (Basheer and Ibrahim 2010). Furthermore, studies have shown that consumers fear registering for information-based SMS services out of privacy concerns (Dickinger et al. 2004) and believe that unsolicited messages that interrupt daily activities are likely to severely damage brand image (Hoyer and MacInnis 2004; Muk 2007a). One study, conducted by Basheer and Ibrahim (2010), discovered that if consumers had prior negative experiences of providing personal information, they were less likely to share their personal information with SMS advertisers.

These consumer sentiments are also reflected in the use of SMS advertising by marketers, who are wary of a customer backlash (Lussanet 2001). For example, a report found that 80% of surveyed companies using SMS advertising feared invading consumers' privacy and 60% feared a negative consumer reaction (Lussanet 2001). According to Merisavo et al. (2007), consumers' willingness to accept mobile advertising is also affected by their knowledge and trust in the laws that prevent marketers from sending them unsolicited advertising messages. If consumers are aware that strict anti-spam regulations are in place, they are confident that their personal information will not be misused, and thus they are more likely to provide that information (Merisavo et al. 2007).

Attitudes to Advertising in General
Research suggests that consumer attitudes towards advertising in general may influence the acceptance of SMS advertising. Some research has also been conducted on the relationship between attitudes to advertising in general and attitudes towards advertising in specific media (Bauer et al. 2005; Khan and Allil 2010; Radder et al. 2010). In particular, one such study analysed the relationship between overall attitudes to advertising and attitudes towards mobile advertising (Bauer et al. 2005). The researchers found that because mobile advertising is relatively new, consumer attitudes towards this medium are likely to be unstable and changeable. These attitudes to mobile advertising, therefore, were likely to be primarily influenced by their attitudes towards advertising in general. A consumer's beliefs about advertising in general,

which have been formed after extensive exposure to mass media advertising and are far more stable and consistent, help shape opinions towards mobile advertising. Bauer et al. (2005) concluded that the more positive the attitude towards advertising in general, the more likely a consumer was to have favourable attitudes towards mobile advertising.

Inconsistency of the Findings on the Acceptance of SMS Advertising

While the broad issues relating to consumer acceptance of SMS advertising are agreed upon in the literature, there is disagreement about the importance of each issue (Maneesoonthorn and Fortin 2006). This has been highlighted by the findings of many researchers on the topic, who have come to different conclusions about the most important drivers of the acceptance of SMS advertising. Researchers such as Basheer and Ibrahim (2010), Chowdhury et al. (2006), Bauer et al. (2005) and Merisavo et al. (2007) promote the nature of the message as the most important driver of consumer attitudes and acceptance. By contrast, other findings suggest that context is the most significant driver of acceptance (Pura 2005; Heinonen and Strandvik 2003). Other studies (Grant and O'Donohoe 2007; Peters, Amato, and Hollenbeck 2007) have found sacrifices such as irritation to be the primary factor affecting acceptance. Finally, one significant school of thought within the discipline shows control and trust to be the key drivers of acceptance, as evidenced by the research findings of Carroll (2007) and Barnes and Scornavacca (2004). The disagreement among academics in this discipline can be partially explained by the limited amount of research conducted. M-Commerce, particularly mobile advertising, is a relatively new concept in marketing, meaning early results are preliminary and should not be treated as empirically generalisable. The few studies that have been conducted have also lacked rigour, with a generally poor application of grounded marketing concepts and theories to support hypotheses. Combine the infancy and depth of research in this field with the notion that marketing itself is a social discipline that researches non-economic concepts such as attitudes and opinions (Sheth, Gardner, and Garrett 1988) and it is easy to see how discrepancies in findings can occur.

In addition, the range of different cultures surveyed within studies of this topic has added to the inconsistency of findings (Phau and Teah 2009). The relatively small number of studies conducted on this topic have been conducted across a vast range of different countries. Different cultures may have varying degrees of experience with SMS advertising and have been exposed to different types of advertisements (Merisavo et al. 2007). This affects consumer acceptance of SMS advertising and the potential drivers of this acceptance. One potential driver of consumer acceptance that is particularly influenced by culture is the issue of permission and privacy. In some places, including Australia and the European Union, stringent laws regarding the sending of unsolicited text messages are in place, whereas other countries have little or no legislation to prevent messages being sent without permission (Merisavo et al. 2007). This affects the importance that consumers place on the permission issue and can certainly affect their acceptance of SMS advertising (Bamba and Barnes 2007). These cultural differences highlight the difficulty in generalising results across cultures and help explain the differences in previous findings.

Intention to Receive and Behavioural Responses to SMS Advertising

Once a consumer's level of acceptance towards SMS advertising has been gauged, it is important for marketers to understand the relationship between acceptance, intention to receive SMS advertisements and their actual usage behaviour (Barnes 2002). Researchers have noted that the best way to measure the effectiveness of advertising is through actual behaviour (Preston 1985). The relationship between acceptance/attitudes, intention and behaviour has been widely studied in the advertising literature, and many researchers have applied Ajzen and Fishbein's (1980) TRA to explain the links between these variables (Bauer et al. 2005). While these variables have been researched extensively in the broader advertising literature, there is a general lack of studies of the intention and behavioural outcomes of SMS advertising. Most researchers have conducted broader exploratory studies into attitudes towards SMS (Merisavo et al. 2007; Tsang, Ho, and Liang 2004). While the area is under-researched, some studies have focused on measuring the relationships between these variables (Barnes 2002; Basheer and Ibrahim 2010; Jun and Lee 2007; Muk 2007a; Peters, Amato, and Hollenbeck 2007; Radder et al. 2010; Tsang, Ho, and Liang 2004). Studies have identified strong and consistent links between the acceptance of SMS

advertising, intention to receive and behavioural response, and these typically follow Ajzen and Fishbein's (1980) model for the TRA. Generally, those consumers who have been found to willingly receive SMS advertisements tend to read them immediately and in full, with a comparatively high chance of response or further action.

By contrast, those who are unwilling to receive advertisements generally ignore or delete them (Jun and Lee 2007; Peters, Amato, and Hollenbeck 2007; Tsang, Ho, and Liang 2004). For example, Tsang, Ho and Liang (2004) measured the relationship between attitude, intention to receive SMS advertisements and behaviour by applying scales used for behavioural responses to internet advertising (Ducoffe 1996; Schlosser, Shavitt, and Kanfer 1999). The results of this study suggested that consumers generally did not intend to receive SMS advertisements and that their behaviour was typically to delete or ignore messages. While these results are not encouraging for SMS marketers, the study identified a strong link between attitudes towards the medium, intention to receive, and actual usage behaviour (Tsang, Ho, and Liang 2004).

While studies measuring the relationships between attitudes/acceptance, intention to receive and behaviour are numerous, very few studies have attempted to identify the actual behavioural outcomes of SMS advertising. According to the limited research in this area, behavioural outcomes may be negative, such as ignoring or skipping an advertisement and deleting the advertisement either before or after reading it, or positive, such as responding to the message, forwarding it to friends or purchasing/subscribing (Barnes 2002; Jun and Lee 2007; Tsang, Ho, and Liang 2004). Thus far, researchers have failed to agree on a generalisable scale for the behavioural responses to SMS advertising. As a substitute, some studies have applied scales from research into the behavioural outcomes of internet advertising, which shares similarities to mobile advertising but cannot be considered to be the same (Merisavo et al. 2007). One such study, conducted by Barnes (2002), attempted to test a consumer's behavioural outcomes when receiving SMS advertising by applying a scale developed for behaviour towards internet advertising (Rodgers and Thorson 2000). In this study, Barnes (2002) noted that the key factor in behaviour response to SMS advertising was attention. If attention was not gained, recipients

were likely to forget, ignore or skip the advertisement, while other outcomes such as response, further research or purchase were more likely to follow if attention was gained. While studies such as these are useful for understanding some of the basic behavioural responses to SMS advertising, a more specific set of items that measures the behavioural actions by consumers after receiving SMS advertisements is necessary.

Cross-national Influences on the Adoption of SMS Advertising

According to the vast amount of academic research in the field of cross-cultural advertising, it can be noted that the adoption of innovation and technology is greatly influenced by national culture (Okazaki and Mueller 2007). According to Hofstede (1991), culture is the values that are shared across a society, which influence the attitudes, behaviour, thinking, feeling and potentially the actions of individuals within that society. He added that culture is a kind of "collective phenomenon", as it is always shared with other people who have lived or are living in the same social environment (Hofstede 1991).

A substantial portion of cross-cultural studies have compared eastern with western cultures, as they have significant cultural and social differences and thus behavioural differences can be clearly noted (Fong 2008). Many studies within the mobile advertising literature have identified differences in the way cultures accept mobile technology and advertising (Choi, Hwang, and McMillan 2008; Chowdhury et al. 2006; Dholakia and Dholakia 2004; Haghirian and Madlberger 2007; Khan and Allil 2010; Kim, Park, and Oh 2008; Muk 2007a, 2007b; Zhang and Mao 2008). While mobile phone penetration is high throughout the developed world, Asian consumers have adopted mobile innovations and services much quicker than consumers from western countries such as Australia and the US (Dholakia and Dholakia 2004; Muk 2007a). This is evident in the range of technologically advanced mobile applications that are commonly used in countries such as Japan and Korea, including mobile television and GPS, that are less popular with consumers in western nations (Kim, Heo, and Chan-Olmsted 2010). According to Kim, Heo and Chan-Olmsted (2010), developed Asian countries such as South Korea represent an ideal testing platform for mobile trends worldwide. Rogers (1995) claimed that this trend occurs

because the rate of the adoption of a new technology is greatly affected by the homogeneity of a culture. In addition, homogeneous cultures have been found to be highly innovative and receptive to new technology (Dekimpe, Parker, and Sarvay 2000). This means that homogeneous cultures such as China, Japan and Korea, whose populations are not ethnically diverse, are more likely to quickly adopt mobile technology than consumers in western countries such as the US, which has a culturally diverse population (Muk 2007b).

Few studies in the literature have compared two diverse cultures in order to research the acceptance and responses of SMS advertising. Although there is a distinct lack of studies within the area, two important works have been conducted by Alexander Muk, a prominent researcher in the SMS advertising discipline. Firstly, Muk (2007a) analysed the differences between how US and Korean consumers accept SMS advertising. The study concluded that SMS advertising was more readily accepted by Korean consumers than it was by Americans, as Koreans are more familiar with the technology and therefore more receptive to advertisements (Muk 2007a). Secondly, Muk (2007b) conducted research into the differences in the adoption characteristics of SMS advertising between US and Taiwanese consumers. The study concluded that cultural differences between consumers heavily influenced the adoption of SMS advertising technology, with the American acceptance of SMS advertising primarily influenced by attitudinal considerations and Taiwanese consumers influenced by social norms as well as attitudinal factors (Muk 2007b). These academic studies provide an insight into the impact of culture on acceptance and responses to SMS advertising. However, because of the lack of research conducted and the small number of cultures examined, marketers have so far been unable to gain a deeper understanding of the impact of culture on SMS advertising. In addition, no research has compared Australian consumers with other nations in the field of the acceptance and response of SMS advertising.

Research Gaps

A number of research gaps can be identified in the overall body of knowledge, which this research attempts to bridge. These key literature gaps form the basis of this study.

Literature in the Past Five Years (All Hypotheses)

A key research gap in the literature relates to the fact that the majority of research on SMS advertising was conducted some time ago (Sinisalo and Karjaluoto 2009). Most previous studies of this topic were published when SMS advertising first became popular in the early 21st century. However, since 2007, very little research has been conducted, with studies instead turning to even newer forms of mobile advertising, such as Bluetooth and MMS (Cockrill, Goode, and White 2011). This is a puzzling phenomenon, as most researchers have noted that not enough is known about SMS advertising, and have called for more empirical studies to gain a greater understanding of the medium (Merisavo et al. 2007). Despite the newer forms of mobile advertising that have come available, SMS is still by far the most popular mobile advertising tool in the industry (Cheng et al. 2009). In addition, it is still the most popular mobile data service among consumers and shows no sign of being replaced by other forms of mobile communication (*The World in 2010: The Rise of 3G* 2010). This lack of recent research in the area means that existing studies may be out of date and thus not representative of the current situation (Sinisalo and Karjaluoto 2009). As a current research project, this study aims to make up for the recent lack of academic research in the field of SMS advertising and bridge the gap between existing research and current practices.

Australian/Cross-national Research (All Hypotheses)

Furthermore, very little empirical research has been conducted on SMS advertising in an Australian context. Instead, the focus has been primarily on the European, American and Asian markets (Phau and Teah 2009). A potential reason for this is that these markets are seen as early adopters of mobile technology and therefore more likely to be familiar with SMS advertising. As such, SMS advertising in the Australian market is still emerging, although it is expected to become an effective and profitable channel (Leung 2007). This lack of focus on Australian consumers represents a problem for the industry and a key gap in the SMS advertising literature. It would be unrealistic to simply generalise the findings of studies conducted across other cultures to an Australian context, as results would not necessarily be representative of Australian consumers. A lack of understanding within the Australian marketplace represents a need to research Australian consumers' acceptance and responses to SMS advertising. In order to bridge this gap in the literature and shed some light on the nature of Australian mobile phone users, this study will test consumer acceptance and response to SMS advertising in the Australian context.

A lack of Australian research also means a lack of cross-national research involving Australian consumers. This lack of cross-national research represents a large gap in the literature, as researchers are currently unaware of Australian consumers' opinions on SMS advertising in relation to consumers from other countries. In order to bridge this gap, this study is conducted cross-nationally between Australian and South Korean consumers. This study analyses the differences between these diverse cultures and provides an understanding of the impact of culture on acceptance and response to SMS advertising.

Young Consumers (All Hypotheses)

The majority of research conducted on SMS advertising has focused on young consumers. This is because these consumers are seen to have adopted this technology earlier than other demographics and they thus represent an easily accessible and knowledgeable source of information (Phau and Teah 2009). While young consumers present a valid and reliable source of data (Yavas 1994), the results may present some bias in that they do not provide an insight into the entire population, just the heaviest users of the technology. These limitations in the literature present an opportunity for much-needed further research in the area to gain an understanding of the marketplace as a whole. While the majority of research has been conducted on young consumers, this study also primarily seeks respondents of a young age. This study involves Australian consumers, and as the Australian mobile advertising industry is relatively new, the majority of consumers will not have extensive experience with this medium. A young, student-based sample will therefore garner respondents with more SMS advertising experience.

Behavioural Responses to SMS Advertising (H2–H5)

There is a distinct lack of research into understanding consumers' behavioural responses to SMS advertising, representing a significant gap in the current literature. Some studies in the literature have identified a strong link between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural responses to SMS advertising. Despite this knowledge, there is a current lack of an empirically tested and generalisable scale that tests consumers' behavioural responses to SMS advertising (Barnes 2002). Instead, studies of this topic have created their own

scales from a range of different items that are neither exhaustive nor applicable to other contexts. A lack of a generalisable scale in the literature prevents researchers from fully understanding how consumers respond to SMS advertising, and this may compromise the findings in this area. This study therefore aims to bridge this gap in the literature by creating an exhaustive scale of consumers' behavioural responses to SMS advertising. This scale, which will be empirically tested, contributes significantly to the current literature.

Concluding Comments

This review of the literature introduced M-Commerce and briefly identified marketing theories that have been applied to the area before narrowing the scope to SMS advertising. This chapter then conducted a comprehensive review of the SMS advertising literature; the concept of consumer acceptance of SMS advertising was discussed and its relation to the body of knowledge on attitudes towards SMS advertising in general explored. An in-depth review of the drivers of consumer acceptance of SMS advertising identified utility, context, sacrifice, control, trust and attitudes to advertising in general as the key variables evident in the literature. Next, it was noted that researchers have found a consistent link between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural responses, although there is a current lack of an empirically tested and generalisable scale on behavioural response to SMS advertising. This review also presented the possible cultural implications of acceptance, intention to receive and behavioural response towards SMS advertising. Finally, this review identified some overall gaps in the literature, including a lack of research using Australian consumers, the lack of a behavioural response scale, a lack of recent research and an over-representation of young respondents. These research gaps provide a significant need and opportunity for further research into this area. This review of the literature provides a solid basis on which this study can be built upon, with the next chapter detailing the proposed hypotheses and theoretical underpinnings.

CHAPTER 3 – THEORETICAL FRAMEWORK

Introduction

The previous chapter reviewed the literature on SMS advertising and proposed further research based on this area. This section now builds on those propositions, addressing the relevant theoretical background underlying SMS advertising. This chapter also introduces the hypotheses that have been derived from the SMS advertising literature review, which aim to advance this area. This chapter begins by introducing the key theories that have an important bearing on consumer acceptance and response to SMS advertising. Then, based on the review of the literature, the relevant constructs for further research are supported using appropriate theories and concepts. Based on the relevant literature and theoretical support, hypotheses are established for each of these constructs and a cross-national research question is proposed. This study centres on testing five key hypotheses relating to the acceptance of and response to SMS advertising and one research question designed to compare these hypotheses across two diverse cultures. Finally, a model summarising the study is provided.

Objectives of the Study

The key objectives of this research are:

1. To determine the drivers of consumer acceptance of SMS advertising (H1a–H1f);
2. To determine the relationship between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural response to SMS advertising (H2–H4);
3. To determine whether these outcomes are different for Australian and South Korean consumers (RQ1).

Theoretical Foundations

The theoretical foundations for this study are drawn from three popular marketing theories. First, the TAM explains consumers' willingness to accept SMS advertising. The Diffusion of Innovation theory introduces some of the key acceptance factors and highlights the impact of culture, and Modernisation Theory also explains the impact of culture. Finally, the TRA describes the relationship between acceptance, intention and response. Beyond these broad theories, more specific theories and concepts have been included for each of the drivers of consumer acceptance of SMS advertising constructs within this study.

Overarching Theories

TAM

Consumers' willingness to accept SMS advertising can be explained by the TAM. The TAM (Kavassalis et al. 2003) is an information systems theory (Peters, Amato, and Hollenbeck 2007), which is an application of Ajzen and Fishbein's (1980) TRA. Introduced by Fred Davis in 1989, the TAM proposes that an individual's acceptance of a new technology is determined by their attitudes towards it as well as the perceived ease of use and usefulness of the technology (Muk 2007a). Perceived ease of use relates to an individual's belief that the prospective technology requires little effort, while perceived usefulness refers to a consumers' subjective evaluation of the utility it offers (Yang and Jolly 2008; Zhang and Mao 2008). The TAM provides a basic outline of the types of factors that influence the acceptance of a new technology and is therefore relevant to SMS advertising.

The TAM is a robust and well-established theory that has become the most broadly applied model in studies of user acceptance (Asil and Vatanparast 2007). While the TAM was originally applied to systems use in the workplace (Davis 1989), it has since been applied to a range of new technologies, including the use of the internet (Teo, Lim, and Lai 1999). Several recent studies have also applied the TAM to understanding mobile advertising attitudes and acceptance (Asil and Vatanparast 2007; Bruner and Kumar 2005; Khan and Allil 2010; Kim, Park, and Oh 2008; Muk 2007a; Nysveen, Pedersen, and Thorbjorsen 2005; Peters, Amato, and Hollenbeck 2007;

Zhang and Mao 2008). In applying the TAM to studies of mobile advertising acceptance, researchers have adapted the theory to various forms of mobile advertising. One such study, conducted by Nysveen, Pederson and Thorbjorsen (2005), explored the intention to use mobile gaming services by adding the hedonic constructs "enjoyment", "fun" and "expressiveness" to the original TAM constructs "ease of use" and "perceived usefulness".

According to Zhang and Mao (2008), the TAM is particularly important for explaining consumer acceptance of SMS advertising. This is because the use of SMS advertising is a reasoned action that requires a purposeful and conscious cognitive effort, which in turn is the basic assumption of the TAM and its parent concept, the TRA. Critics of the TAM have pointed out that consumers do not necessarily have to consciously process advertising information (Fishbein and Middlestadt 1995) and instead can form attitudes when motivation is low, or exposure to advertising is incidental (McQuarrie and Mick 2003; Zhang and Mao 2008). While this may be true for traditional forms of advertising such as television and radio, SMS advertising is seen to require reasoned action, as users have some degree of control over the messages they receive (Bamba and Barnes 2007; Barnes and Scornavacca 2004). In addition, SMS is a more interactive form of advertising, as consumers can respond directly to the advertisement or forward the communication to others, increasing the possibility that they will cognitively process advertising messages (Liu and Shrum 2002). It can therefore be said that the TAM is a useful theory for a study that seeks to determine the drivers of consumer acceptance of SMS advertising. The TAM introduces some important constructs as the drivers of consumer acceptance of SMS advertising, including attitudes towards SMS advertisements, perceived ease of use and perceived usefulness.

Diffusion of Innovation

While the TAM is a useful predictor for understanding the overall acceptance of a new technology or advertising medium, it identifies a limited set of adopter characteristics for SMS advertising. The Diffusion of Innovation theory is thus useful, as it identifies a more comprehensive set of attributes that may act as the drivers of consumer acceptance (Muk 2007a; Rogers 1995). The Diffusion of Innovation theory is the dominant theoretical framework for

analysing the rate of adoption of innovative technology (Roach 2009), which can be defined as *"The process by which innovation is communicated through certain channels over time among the members of a social system"* (Rogers 1983, 5). The theory suggests that when exposed to a new technology, an individual will choose to accept or reject the innovation based on their preferences and on the perceived attributes and benefits of the technology (Rogers 1995). This acceptance is determined by a logical process based on the following hierarchy of effects. First, an individual undertakes an initial period of basic knowledge of an innovation, before forming an attitude towards it and finally a decision to either adopt or reject it (Asil and Vatanparast 2007; Rogers 1983, 1995). This process provides the underlying theoretical basis for the adoption or rejection of SMS advertising and describes the process by which consumers may accept or reject this innovation.

Rogers (1995) also suggested that adoption is related to the beliefs regarding five major attributes of innovation, which are relative advantage, complexity, compatibility, trialability and observability. These attributes can be compared with the TAM, with the TAM's perceived usefulness equivalent of Diffusion of Innovation's relative advantage and ease of use equivalent to complexity (Karahanna, Straub, and Chervany 1999). These underlying constructs of the decision process provide an important theoretical basis for determining the drivers of consumer acceptance of SMS advertising. One of the key aspects of Rogers's (1995) Diffusion of Innovation theory is the impact of demographics on the adoption of a new technology. The theory suggests that the rate of the adoption of a new technology differs across various demographic groups, as the technology is adopted quickly by some groups and slowly by others. In the Diffusion of Innovation theory, Rogers (1995) suggested that the rate of adoption is heavily influenced by the homogeneity of a society. Typically, a homogeneous society is one in which the majority of people share the same language, ethnicity, religious beliefs and culture, whereas a heterogeneous society can be seen as diverse in comparison (Yamamura 2008). According to the Diffusion of Innovation theory, consumers from homogeneous societies, such as China, Japan and South Korea, are more receptive to innovation and technology compared with heterogeneous societies such as Great Britain, Australia and the United States (Dekimpe,

Parker, and Sarvay 2000; Muk 2007a, 2007b; Rogers 1995). In other words, the more similar the adopters, the faster the rate of diffusion is (Dekimpe, Parker, and Sarvay 2000).

According to Muk (2007a), this is applicable to the study of the cultural adoption of SMS advertising, as this is a relatively innovative form of advertising. This means that the Diffusion of Innovation theory is particularly relevant to the cross-cultural study of the acceptance of and responses to SMS advertising. This theory is also particularly relevant for comparing Australia and South Korea, two distinct cultures.

Modernisation Theory

The Diffusion of Innovation theory is useful for explaining the potential reasons for the differences between cultures, while Modernisation Theory explains the potential similarities between cultures in acceptance and response to SMS advertising. According to Modernisation Theory, a convergence of values has occurred between traditionally collectivist and individualist societies owing to technological advancement in modern Asian economies (Segall et al. 1990). As technology and innovation in modern Asian economies continue to rise, economic values have shifted into social values and societies have become more individualistic, reflecting western values (Kalogeraki 2009). Modernisation Theory could therefore be useful for predicting similarities between Australian and South Korean consumers in their acceptance and response to SMS advertising.

TRA

While the TAM and the Diffusion of Innovation theory explain the acceptance of SMS advertising and the cultural impact on SMS advertising, the TRA supports the relationship between acceptance, intention to receive and behavioural response to SMS advertising. Ajzen and Fishbein's (1980) TRA has been the pre-eminent theory in attitude research throughout the field of marketing for a number of years, and it was created to gain a greater understanding of why consumers perform certain actions (Bagozzi, Baumgartner, and Yi 1991). The underlying

assumption of the TRA is that consumers consciously decide to perform or not perform a certain behaviour, that is, any action performed is reasoned before it is undertaken (Ajzen and Fishbein 1980; Bauer et al. 2005). The TRA proposes that the most significant determinant of reasoned behaviour is the intention to perform that behaviour, which in turn is influenced by a consumer's attitude towards the action and social norms (Ajzen and Fishbein 1980; Asil and Vatanparast 2007; Bauer et al. 2005). This model therefore explains the psychological process in undertaking a behaviour by linking the core components of attitudes, intention and behaviour (Ajzen and Fishbein 1980; Ajzen 1991; Tsang, Ho, and Liang 2004). The TRA has formed the basis of a number of other academic theories, including the TAM (Davis 1989) and the Theory of Planned Behaviour (Ajzen 1991). While the Theory of Planned Behaviour can be considered to be an updated and more modern version of the TRA, the majority of research within the field of wireless advertising has applied the TRA to describe the relationship between attitudes and behaviour. This research therefore also uses the TRA to explain the relationship between the key variables in this study.

The TRA has been consistently applied to the study of mobile and SMS advertising (Asil and Vatanparast 2007; Basheer and Ibrahim 2010; Bauer et al. 2005; Hanley and Becker 2008; Jun and Lee 2007; Khan and Allil 2010; Muk 2007a; Tsang, Ho, and Liang 2004; Zhang and Mao 2008). It can be applied to the study of SMS advertising, as behavioural response to an SMS advertisement requires a deliberate cognitive action by a consumer (Zhang and Mao 2008). The TRA traditionally links attitudes, intention and behaviour. However, according to Bauer et al. (2005), in the case of mobile advertising, the acceptance of advertising should be used in place of attitudes towards advertising as mobile advertising is a relatively new phenomenon and most consumers may not have formed consistent and stable attitudes towards it. Therefore, in the SMS advertising context, the TRA explains the direct relationship between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural response to receiving SMS advertising.

Conceptual Framework

The hypotheses for each of the constructs in this study are outlined in a conceptual framework, and they are first summarised using a conceptual model. The drivers of consumer acceptance of SMS advertising are illustrated in Hypotheses H1a to H1f. The relationship between the acceptance of SMS advertising and intention to receive SMS advertising is illustrated in H2. The relationship between intention to receive SMS advertising and behavioural responses to SMS advertising is shown in H3 and the direct relationship between acceptance and response is shown in H4. Finally, the mediating role of intention to receive between acceptance and response is illustrated in H5. These constructs and the relationships between them are summarised in the conceptual model in Figure 2.

Figure 2: Conceptual Model of Consumer Acceptance and Response to SMS Advertising
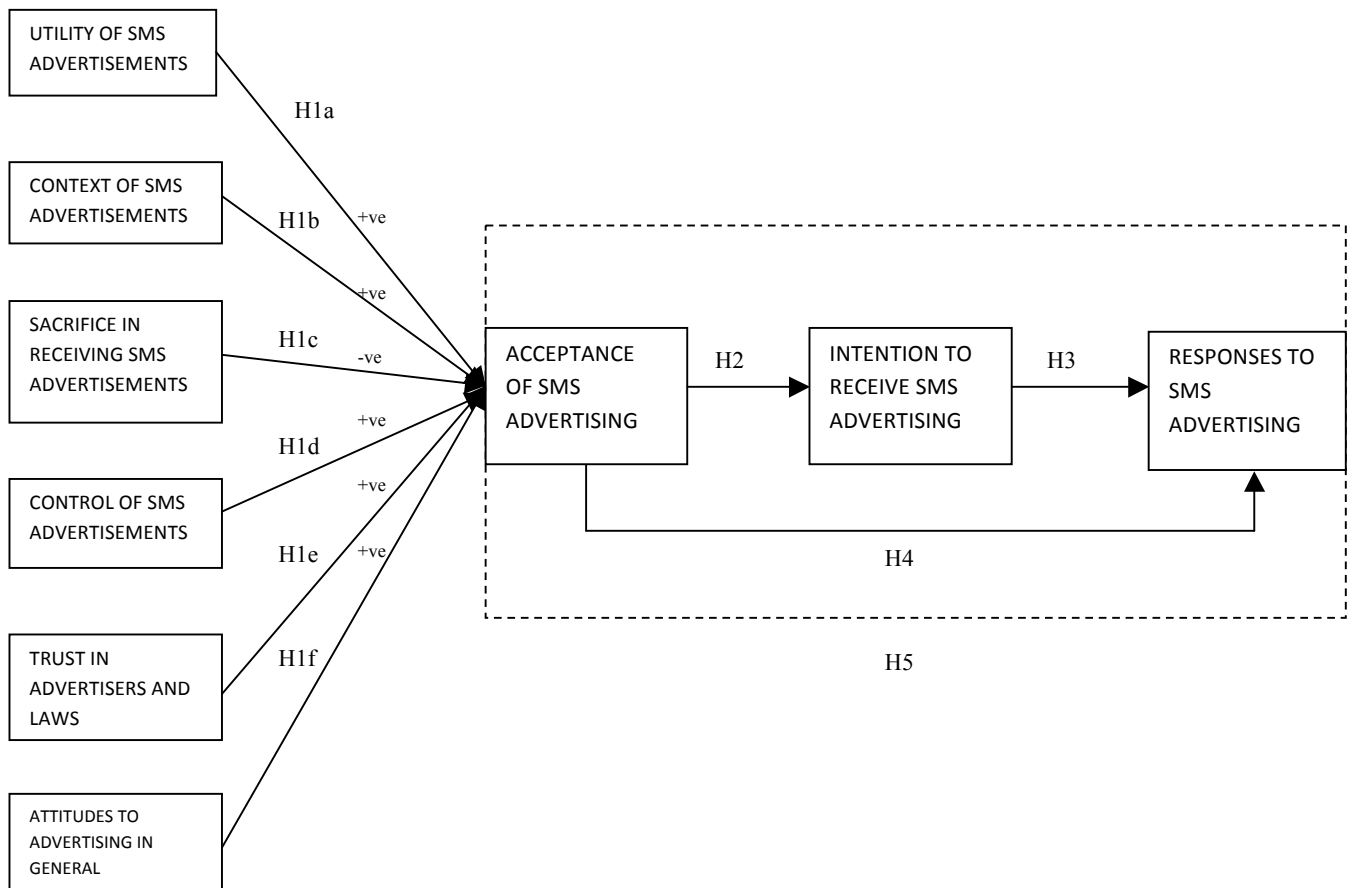
Drivers of Consumer Acceptance of SMS Advertising

Utility of SMS Advertisements

The discussion of the relevant literature identified perceived utility as an important driver of consumer acceptance of SMS advertising. Utility includes important factors such as entertainment value, information value, perceived usefulness, relevance and monetary incentives (Merisavo et al. 2007). Perceived utility is the benefit that consumers receive when exposed to an SMS advertising message. The higher the perceived benefit associated with the advertisement, the higher the level of acceptance is (Bauer et al. 2005). This idea is supported by the **Information Economic Model of Communication**. This theory purports that the consumer consciously decides on which advertising stimuli he or she perceives. During this time-limited process of perception, the consumer trades off between different sources of advertising (Kaas 1990). According to the model, a consumer would perceive the advertising stimulus if its marginal utility outweighs the marginal utility in engaging in an alternative activity. In the context of this study, this means that a consumer's acceptance of SMS advertising would be strong if the perceived utility of the advertising service is high relative to the alternatives (Bauer et al. 2005).

The notion that utility is a driver of consumer acceptance of SMS advertising can be further explained by the **Uses and Gratifications Theory**. This theory is a research strategy used to understand the use of media in terms of psychological or social indulgence or needs (Jun and Lee 2007). It states that the consumer is actively involved in the decision to determine media use (Peters, Amato, and Hollenbeck 2007) and that the use of media is goal-oriented (Katz, Gurevitch, and Haas 1973; Phau and Teah 2008). Studies of the use of media show that consumers have a need to express personal identity, build relationships and seek escapism, as well as seek entertainment and information (Katz, Gurevitch, and Haas 1973; Weiss 1971). Katz, Gurevitch and Haas (1973) identified three categories of needs: the need for information, the need for entertainment and the need for social acceptance. In light of this study, the Uses and

Gratifications approach suggests that acceptance would occur if SMS advertising were perceived to fulfil these basic needs, which are components of the utility concept.

Supported by the theoretical application of the Information Economic Model of Communication and the Uses and Gratifications theory, it can be said that the benefits of receiving SMS advertisements have an important bearing on consumer acceptance of SMS advertising. These benefits, including factors such as information value, entertainment value, relevance, usefulness and monetary incentives, form the total utility perceived by the consumer. Hence:

H1a: Consumers' perceived utility of SMS advertising is positively related to their willingness to accept SMS advertising.

Context of SMS Advertisements

As highlighted in the literature, one potential driver of consumer acceptance of SMS advertising is context. It has been noted that consumers perceive value in relation to the time and place they receive an SMS advertisement, which is known as contextual information (Merisavo et al. 2007). This idea of context adding value to consumer perception can be supported by the underlying concept of **Conditional Value.** Conditional Value refers to the external circumstances that affect choice, occurring only within a specific and unique situation (Holbrook 1994; Pura 2005). While the impact of context has been broadly studied throughout the marketing literature, it is most often related to consumption experiences at certain events, for example Christmas, and is restricted to the impact of time and place (Pura 2005). In applying the conceptual theory of conditional value to mobile advertising, researchers have adapted the traditional idea of conditional value to more appropriately describe the use of mobile services. This updated conceptual model has added concepts such as social environment and the availability of technology to the traditional concepts of time and place, reflecting the situational nature of mobile services on the move (Pura 2005). Based on the notion of conditional value, it can be said that the context within which a consumer receives an SMS advertisement has an important bearing on a consumer's decision to accept SMS advertising. Hence:

H1b: Consumers' utilisation of contextual information in SMS advertising is positively related to their willingness to accept SMS advertising.

Sacrifice in Receiving SMS Advertisements

It has been highlighted in the literature that the perceived sacrifices in receiving SMS advertising may have an important bearing on the acceptance of SMS advertising. These perceived sacrifices include factors such as annoyance, irritation and the loss of privacy, and represent a perceived risk for the consumer in receiving SMS advertisements. Perceived risk is particularly relevant to the study of SMS advertising as it is seen as an innovation, and consumers lack experience with the new medium, leading to a high-risk situation. Consumers therefore try to reduce the perceived risk when making an acceptance decision, and this may result in the refusal of an innovation (Bauer et al. 2005). The perceived risks associated with receiving SMS advertising are supported by the **Perceived Risk Theory**. This is an underlying concept in the study of consumer behaviour, which can be defined as "*the uncertainty consumers face when they cannot foresee the consequences of their decision*" (Schiffman and Kanuk 2000, 28). In its most basic form, consumers perceive risk when any action taken by a consumer produces consequences that are viewed with some amount of uncertainty (Chen and He 2003). Typically, perceived risk has been conceptualised into six components: financial, performance, social, psychological, safety and time/convenience loss (Jacoby and Kaplan 1972; Schiffman and Kanuk 2000). Specifically, financial risk refers to the likelihood that purchase results in a loss of money. Performance risk refers to the likelihood that a product fails to perform as expected. Social risk refers to the likelihood of a product resulting in disapproval in a social environment. Psychological risk refers to the likelihood of a negative impact on self-image. Physical risk refers to the likelihood of a product resulting in injury, and time risk refers to the likelihood of a purchase resulting in the loss of time to perform other tasks (Chen and He 2003). Overall, perceived risk is the sum of these factors.

While the Perceived Risk Theory is a popular concept in consumer behaviour, it has not properly been applied to the study of mobile advertising, instead being primarily applied to describe the risks associated with consumer goods. Despite this lack of application, Merisavo et al. (2007) believed that some perceived risk factors have an important bearing on consumer acceptance of SMS advertising. These important factors include the perceived irritation of receiving SMS advertisements, which according to Perceived Risk Theory is a psychological risk. Merisavo et

al. (2007) also identified the time involved in dealing with SMS advertising as an important factor, which can be categorised as time risk.

Supported by the Perceived Risk Theory, the perception of various risks relating to time, unsuitability, irritation and the loss of privacy represent significant sacrifices that consumers associate with SMS advertising. This sacrifice can be said to be an important driver of consumer acceptance of SMS advertising. Hence:

H1c: Consumers' perceived sacrifice in receiving SMS advertising is negatively related to their willingness to accept SMS advertising.

Control Over SMS Advertisements

The review of the literature showed that perceived control over the number and types of advertisements consumers receive may be an important driver of consumer acceptance of SMS advertising. This control over advertising messages refers to the issue of permission, which is an important issue in the literature (Bauer et al. 2005). The overwhelming majority of studies conducted in the field have suggested that consumers are more likely to accept mobile advertising if permission was given prior to receiving the advertisement. Control over SMS advertising is supported by the concept of **Permission Marketing** (Merisavo et al. 2007). Permission Marketing represents the opposite of traditional interruption marketing, where consumers provide marketers with consent to send them certain types of promotional messages (Godin 1999). Typically, permission is obtained by asking a consumer to complete a survey when registering for a service, and consumers' interests are then matched to the relevant advertising messages (Krishnamurthy 2001). The fundamental aim of permission marketing is to improve the targeting precision of advertising messages and move away from the traditional approach of "targeting on averages" where broad and generic profiles are used to expose consumers to advertising (Krishnamurthy 2001). This concept, driven by the various forms of direct marketing, aims to build long-term relationships with the consumer and tailor the marketing mix to the needs of the individual (Carroll et al. 2007; Krishnamurthy 2001). The concept of permission marketing has been widely applied to the study of SMS advertising, and a range of applicable models have been proposed. For example, Krishnamurthy (2001) identified

five factors that determine consumer interest in a permission-based wireless campaign: message relevance, monetary benefit, personal information entry costs, message processing costs and privacy costs.

According to Rettie and Brum (2001), the idea of consumer consent is particularly relevant to mobile marketing, as the low cost of sending advertising messages can create a potential volume problem for the consumer. Furthermore, the mainly social use of the medium and invasiveness of receiving an SMS advertising message is likely to cause irritation unless permission is given. The highly personal nature of the mobile phone means that consumers' ability to control the number and types of advertising messages received is an important factor in the acceptance of SMS as an advertising medium (Merisavo et al. 2007).

Based on the concept of permission marketing, it can be said that consumer acceptance of SMS as an advertising medium is likely to be influenced by the perceived control that consumers have over the advertising messages they receive. Hence:

H1d: Consumers' perceived control of SMS advertising is positively related to their willingness to accept SMS advertising.

Trust in Advertisers and Laws

The review of the literature identified consumer trust as a potentially important factor in the acceptance of SMS advertising. This involves consumers trusting that advertisers will not misuse their personal data when providing permission to receive SMS advertisements and the knowledge of anti-spam legislation designed to protect consumers from these circumstances (Merisavo et al. 2007). Studies that have included this construct to determine the drivers of consumer acceptance have found that those who were trusting of advertisers and had prior positive experiences with regards to providing information were more likely to be accepting of SMS advertising (Basheer and Ibrahim 2010).

The notion that trust affects the acceptance of SMS advertising is underlined by the **Social Contract Theory**, one of the most dominant and influential moral and political theories in modern society (Friend 2004). Social Contract theory describes the need for individuals to unite by a process of consent, giving up some personal liberties and agreeing to common rules and duties in order to benefit from a structured system of government (Macneil 1974). In essence, social contracts comprise a series of implied agreements that form the nature of social order and explain why rational and impartial people voluntarily surrender their freedom to obtain the benefits of social structure (Macneil 1980). These agreements, or social contracts, help maintain balance within society and they are self-governed by the parties involved. In a business context, these contracts exist on a continuum, from single transactions between unrelated parties to long-term relationships between known parties, and occur without the exchange of goods (Macneil 1980). If either party breaks their responsibility to the social contract, dissatisfaction and mistrust may occur.

The relationship between a mobile phone consumer and SMS advertiser, therefore, takes the form of an implicit social contract, whereby consumers provide personal information in exchange for the relevant services (Okazaki, Li, and Hirose 2009). After providing their personal information, users expect it to be used appropriately, namely not for purposes outside the prearranged agreement. If advertisers break from this expected pattern of behaviour, consumers believe their social contract has been violated (Okazaki, Li, and Hirose 2009). If consumers feel the social contract terms have not been met, they are less likely to participate in future transactions and less accepting of SMS as an advertising tool. This issue of trust in the social context also includes the perceived degree of regulatory control over SMS advertising. According to the theory, government and industry regulation should be governed by the preferences of individuals in a society (Macneil 1980). Therefore, according to the social contracts perspective, the degree of regulatory control should reflect the preferences of mobile users (Okazaki, Li, and Hirose 2009).

Based on the Social Contract theory, it is anticipated that consumers' trust in advertisers and their knowledge of anti-spam laws that protect them may affect consumer acceptance of SMS advertising. Hence:

H1e: Consumers' trust in information privacy of SMS advertising is positively related to their willingness to accept SMS advertising.

Attitudes to Advertising in General

Based on the literature, it has been shown that attitudes to advertising in general greatly affect whether a new advertising medium is accepted. The notion that attitudes towards advertising in general could be a factor that determines the acceptance of advertising in one specific medium is supported by the **Theory of Cognitive Dissonance**. The Theory of Cognitive Dissonance is an important concept in psychology that explains the integration of a single attitude into an individual's entire attitudinal system (Festinger 1978). The theory explains the relationship between an individual's attitude structure and how a person will try to keep their cognitive systems in balance (Bauer et al. 2005). The theory purports that if an inconsistency arises between cognitive processes such as attitudes, opinions or expectations, the individual will experience a feeling of uneasiness. To reduce this feeling of dissonance, the individual will be motivated to reduce the difference between cognitive beliefs. In this situation, the individual generally reshapes the attitude of lowest resistance, allowing it to become consistent with the more dominant attitude or belief (Güttler 2003).

This notion of Cognitive Dissonance is particularly relevant for studying consumer acceptance of SMS advertising. According to Bauer et al. (2005), attitudes towards advertising in general and SMS advertising are related, as SMS advertising can be considered to be a subset of advertising. As SMS advertising is a relatively new concept, consumers are likely to be relatively unfamiliar with it, and their attitudes towards this medium are likely to be unstable and flexible. By contrast, consumers' beliefs about advertising in general are much more rigid and stable, as individuals are familiar with it and exposed to it regularly. Beliefs about SMS advertising are therefore likely to be heavily influenced by attitudes towards advertising in general, which have

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a greater resistance to change (Bauer et al. 2005). Based on the Theory of Cognitive Dissonance, it is expected that the acceptance of SMS advertising is influenced by consumers' attitudes towards advertising in general. Hence:

H1f: Consumers' attitudes to advertising in general are positively related to their willingness to accept SMS advertising.

Relationship between Acceptance, Intention and Behaviour

Past research has identified strong and consistent links between the acceptance of SMS advertising, intention to receive and behavioural response, and these typically follow Ajzen and Fishbein's (1980) model for the TRA. Generally, those consumers who have been found to willingly receive SMS advertisements tend to read them immediately and in full, with a comparatively high chance of response or further action. By contrast, those who are unwilling to receive advertisements generally ignore or delete them (Jun and Lee 2007; Peters, Amato, and Hollenbeck 2007; Tsang, Ho, and Liang 2004). Behavioural outcomes to SMS advertising may be negative, such as ignoring or skipping an advertisement and deleting the advertisement either before or after reading it, or positive, such as responding to the message, forwarding it to friends or purchasing/subscribing (Barnes 2002; Jun and Lee 2007; Tsang, Ho, and Liang 2004).

Based on the review of the literature and theoretical underpinnings, it is expected that there is a direct and positive relationship between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural response towards SMS advertising. In addition, it is expected that there is a direct relationship between the acceptance of SMS advertising and behavioural response to SMS advertising. Finally, consumers' intentions to receive SMS advertisements are expected to be a mediator in the relationship between acceptance and behavioural response. Hence, the following hypotheses can be deduced:

H2: Consumers' acceptance of SMS advertising affects their intentions to receive SMS advertising

H3: Consumers' intentions to receive SMS advertising affect their behavioural responses to SMS advertising

H4: There is a direct relationship between the acceptance of SMS advertising and behavioural response to SMS advertising

H5: Intention to receive SMS advertising is a mediator between the acceptance of SMS advertising and behavioural response to SMS advertising

Cross-national impact on Acceptance, Intention and Behaviour

Many cross-nation studies have compared the differences between eastern with western cultures, with many researchers indicating vast differences in the way consumers from these regions adapt and use new technology. Rogers (1995) claimed that this trend occurs because the rate of the adoption of a new technology is greatly affected by the homogeneity of a culture. In addition, homogeneous cultures have been found to be highly innovative and receptive to new technology (Dekimpe, Parker, and Sarvay 2000). Research has also indicated that as a new technology, these trends in cultural differences between consumers are also likely to influence the adoption of SMS advertising.

According to the literature and theoretical background, it can be said that national culture may influence a consumer's acceptance of and response to SMS advertising. This is particularly true when comparing a culturally heterogeneous nation with a culturally homogeneous nation. Based on these findings, this study will compare the acceptance and behavioural responses of Australian and South Korean consumers towards SMS advertising. Therefore, the following research question is proposed:

RQ1: Is the acceptance of SMS advertising, intention to receive SMS advertising and response to SMS advertising different for Australian and South Korean consumers?

Theoretical Conceptual Model

A model summarising the theoretical foundations relevant to each construct is presented in Figure 3.

Figure 3: Theoretical Foundations of the Acceptance and Response to SMS Advertising
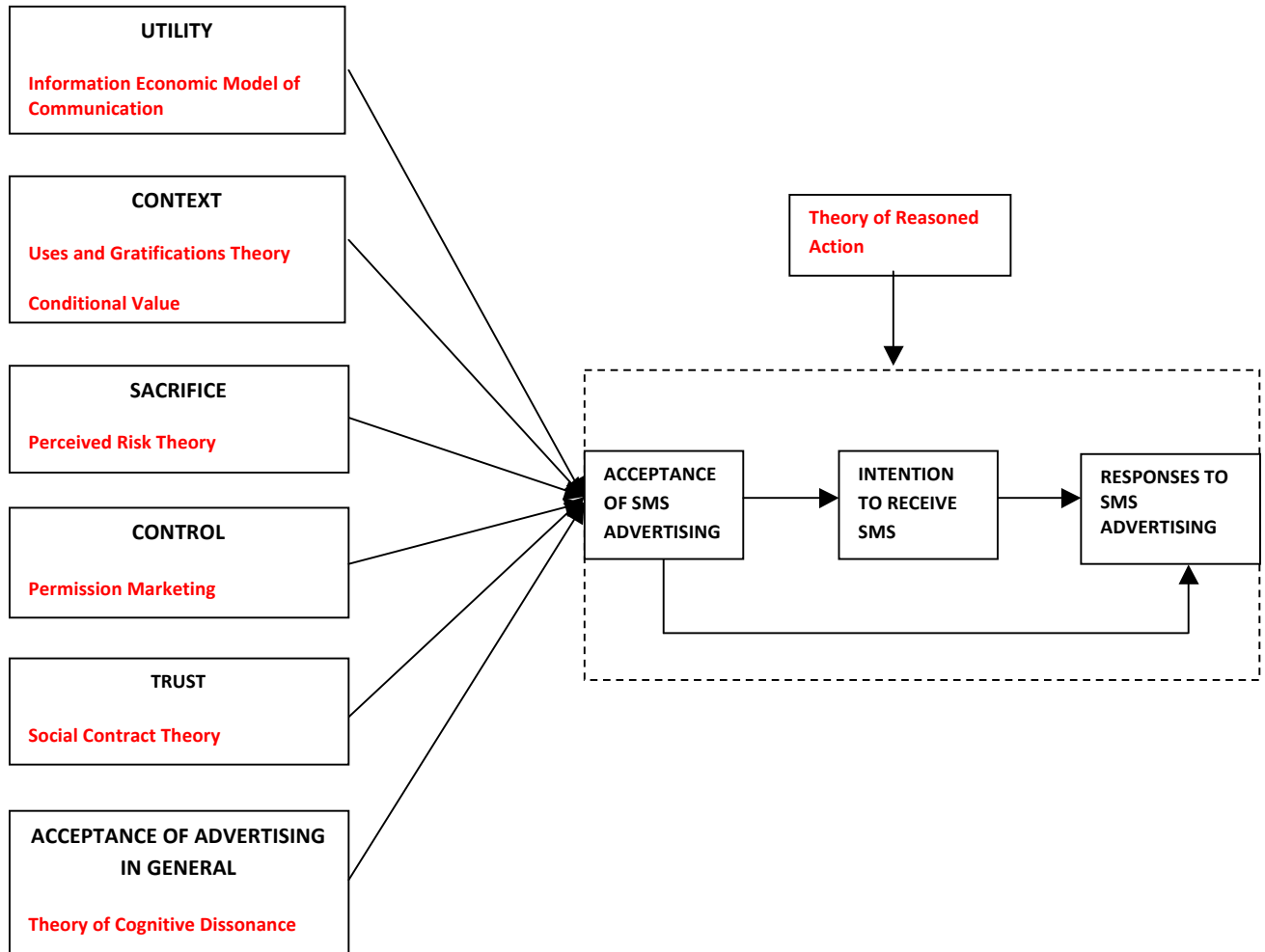
Concluding Comments

This section presented the key academic theories and concepts that form the basis of this study as well as the hypotheses to be tested. Davis's (1989) TAM was shown to be an important basis on which consumer acceptance of SMS advertising could be studied. Next, Rogers's (1995) Diffusion of Innovation theory introduced some of the factors that influence acceptance and detailed the impact of culture, along with Modernisation Theory. Ajzen and Fishbein's (1980) TRA supported the relationship between acceptance, intention and response. After the application of these three core concepts, more specific theories and concepts were applied to each of the proposed drivers of consumer acceptance. These included the Information Economic Model of Communication and Uses and Gratifications theory for the Utility driver, the concept of Conditional Value for the Context driver, the Perceived Risk Theory for the Sacrifice driver, the concept of Permission Marketing for the Control driver, Social Contract Theory for the Trust driver and the Theory of Cognitive Dissonance for the Attitudes to Advertising in General driver. Hypotheses H1a to H1f were constructed to test the expected relationship between the drivers of consumer acceptance and the acceptance of SMS advertising. Hypotheses H2 to H5 were constructed to test the relationships between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural responses to SMS advertising. Research Question 1 was also included to test whether the results would be different for Australian and South Korean consumers. Finally, a conceptual model was used to summarise the framework of the study. The next chapter describes the research methods in this study.

CHAPTER 4 – RESEARCH METHODOLOGY

Introduction

The previous chapter discussed the theoretical underpinnings of this research, while this chapter outlines the research methods used. First, this chapter highlights the various types of research before justifying the proposed use of quantitative techniques. Next, this chapter gives specific details about the research design. In this section, the sampling method and data collection techniques are described. In addition, an explanation about the type and origin of the scales and measures used in this study is provided. Finally, the ethical considerations in conducting this research are presented.

Justification for the Methodology

In determining which method is appropriate for this study, it is necessary to examine the fundamental purpose of the research and the paradigm appropriate to the study. According to Sekeran (2003), the primary purpose of business research falls into one of three categories: exploratory, descriptive or hypothesis testing. An exploratory study is used when little is known about the situation at hand and new areas of knowledge are to be developed. A descriptive study is undertaken when trying to describe certain characteristics of phenomena in relation to the variables of interest. Finally, hypothesis testing is conducted to enhance the understanding of certain relationships or establish differences among variables in a specific context. Since this study primarily aims to test the relationship between previously developed constructs in a new context, it can be considered to be a hypothesis testing study (Sekeran 2003).

The selection of an appropriate research paradigm must be justified. According to Kuhn (1970), a paradigm is a set of linked assumptions that are used to investigate the day-to-day work of any science. A paradigm therefore enables a researcher to determine which methods are appropriate

for exploring the nature of a problem (Deshpande 1983). The two broad research paradigms appropriate to the social sciences are positivism and interpretivism, which contrast in their philosophies about the nature of research (Neuman 2003). The fundamental idea behind the positivist view is one of objectivity, where the researcher is detached and uses empirical data to explain human behaviour (Neuman 2003). The positivist paradigm can therefore be said to favour a quantitative method, which includes surveys and experiments. By contrast, the interpretivist view of social science seeks to understand human behaviour through a subjective approach to observation. This approach takes into account multiple perspectives, including the researcher, participants and the context within which the behaviour occurs (Carson et al. 2001). In contrast to the positive approach, the interpretivist view can be said to favour qualitative research, using methods such as interviews and observations. While there is much conjecture in the literature, it has been emphasised that one approach is not necessarily better than the other, rather each method is appropriate in different situations (Carson et al. 2001).

Survey Research

This study uses survey research as its primary method of data collection, which is a quantitative research technique. According to Sekeran (2003, 236), a questionnaire is *"a pre-formulated set of questions to which respondents record their answers, usually within rather closely defined alternatives"*. In this study, survey data are collected using structured questions and involving a large sample of respondents. Statistical analysis is used to analyse survey responses, allowing for the rigorous testing of the hypotheses. This study uses two techniques to administer the surveys: personally administered and electronically distributed. According to Spitz, Niles and Adler (2006), it is useful to adopt multiple survey administration methods in order to benefit from each method's advantages, reduce the impact of disadvantages and reduce the risk of bias (Sekeran 2003). The personally administered survey is a popular method for collecting responses, as it allows collection in a short period of time. In addition, personally administering surveys can be useful for motivating respondents to give carefully considered responses and clarifying any doubts (Sekeran 2003). In this study, an online survey methodology was used. According to Sekeran (2003) and McDaniel and Gates (2004), online survey distribution is cost-effective and rapid. In addition, electronic surveys allow complete anonymity and they can be completed by the respondent in a comfortable and stress-free environment.

Research Design

Type of Study

The purpose of this study is to determine the drivers of consumer acceptance of SMS advertising, intention to receive SMS advertising and responses to SMS advertising for Australian and South Korean consumers. As discussed, the nature of this study is predominately based on hypothesis testing. This study aims to test previously constructed variables in a new context and combine elements of an exploratory study by developing items to test the behavioural responses to SMS advertising (Sekeran 2003). Little empirical research of this nature exists in the SMS advertising literature, and therefore the results will offer new evidence about the acceptance of and responses to SMS advertising in the Australian and South Korean markets (Sekeran 2003). The unit of analysis in this study is the individual, and the time horizon is cross-sectional. This research is also conducted with minimal interference from the investigator. Apart from survey translation procedures and administering questionnaires, the investigator did not interfere with the subjects in any way. Finally, this study was conducted in a non-contrived setting, that is it occurred in a natural environment and not in a laboratory setting (Sekeran 2003).

Sampling Method

The population for this study was young Australian and South Korean mobile phone users, in keeping with key literature. For the purpose of this study, Australian and South Korean mobile phone users were considered to be anyone either residing or studying in the relevant country. The target for this study were young consumers aged between 18 and 44, as this broad demographic was identified in the literature as being most familiar with mobile technology, and therefore likely to have received SMS advertising messages.

Functional and Conceptual Equivalence

The review of the literature and analysis of the mobile industry in each country found that SMS advertising was readily available to respondents in both Australia and South Korea. In both countries, SMS is heavily used as a communication tool, and marketers have used SMS as a means of advertising. Therefore, the familiarity of participants in both nations with SMS

technology and advertising fulfils the equivalent requirement for comparative research (Douglas and Craig 1983; Muk 2007b; Sekeran 2003). Linguistic equivalence was achieved by initially drafting the questionnaire in English and translating it into Korean, before translating responses back into English (Bhalla and Lin 1987). The translation was carried out by two fully bilingual experts, including a Professor of English at a South Korean university and a South Korean student studying in Australia.

Data Collection

The survey administered for this study was created in two formats. Firstly, Microsoft Word was used to create an offline version of the survey, which was printed and personally administered. Secondly, an online version containing the same questions and format was created on the Survey Monkey website for electronic distribution. The questionnaire for this study was therefore distributed in two ways. Once created in English, both versions of the survey were translated into Korean, according to the guidelines outlined by Bhalla and Lin (1987).

For the collection of Australian data, surveys were personally administered at a large university in Perth, Western Australia. This university was chosen for its easy access to a large number of young people. Surveys were personally administered around campus, as well as in a lecture setting, with the aim of capturing respondents that fit the demographic target. According to Yavas (1994), students are an effective source of data for marketing and advertising research, with responses generally found to be a sufficient representation of the broader adult population.

For South Korean data collection, surveys were personally administered in lectures and around campus at a large university in Seoul. Surveys were also distributed electronically, with a link to this survey placed in an email. Email addresses were collected based on a convenience sample of university contacts from the Australian university and Korean university, with all respondents satisfying the age and residence criteria. Both the paper and electronic versions of the survey

contained an information sheet about the purpose of the research and the ethical considerations of respondents.

Scales and Measures

The scales and measures used in this study were adapted or replicated from a variety of sources. The items for the scale measuring the behavioural responses to SMS advertising were developed for the purpose of this study, and the process of this scale development is explained in detail under a separate heading.

Questionnaire

The survey instrument used for this study comprised four sections, 1, A, B and C. Section 1 contained six nominal and ordinal type questions designed to determine the consumer's use of mobile phones, SMS and SMS advertising. First, four preliminary screening questions relating to the consumer's use of mobile phones and SMS were included. These items were adapted from Phau and Teah (2009), whose scale was used to determine the user's motives and perceptions of SMS advertising. Next, the respondents were asked about their behavioural responses to SMS advertising via the scale items developed for this study. Finally, section 1 included a question relating to consumers' willingness to receive SMS advertising, using a scale constructed by Tsang, Ho and Liang (2004).

Sections A and B of the research instrument included questions relating to the drivers of consumer acceptance of SMS advertising. First, section A examined consumer attitudes towards advertising using a scale adapted from Elliot and Speck (1998). This scale was used to create the dimension of attitudes to advertising in general, which was highlighted in the literature as being a potential driver of consumer acceptance of SMS advertising. This section included the items "I think that advertising is interesting", "I think that advertising is enjoyable", "I think that advertising is informative" and "I think that advertising is believable".

Section B of the research instrument contained questions about the remaining five drivers of consumer acceptance of SMS advertising. The scale used for this section was adapted from the work of Merisavo et al. (2007), which used a five-dimension scale to determine consumer acceptance of SMS advertising in Finland. The five dimensions (Utility, Context, Sacrifice, Control and Trust) contained a total of 22 items, including three items on the acceptance of SMS advertising. The items were:

"I think that SMS advertising saves me money", "I think SMS advertising saves me time", "I think that useful information is important in SMS advertising", "I think that an entertaining experience is important in SMS advertising", "I would view SMS advertising related to me being in a specific location (e.g. stores, restaurants) as useful", "I would view SMS advertising related to a specific time or date (e.g. anniversary) as useful", "I would be prepared to spend time providing my personal details to make SMS advertising better match my needs", "I would only be prepared to receive SMS advertising if I had provided my permission", "It is important for me that I can control the permission to receive SMS advertising", "It is important for me that I can refuse to receive SMS advertising", "It is important for me that I can filter SMS advertising to match my needs", "The biggest problem related to receiving SMS advertising is loss of control", "The biggest problem related to receiving SMS advertising is loss of privacy", "The biggest problem related to receiving SMS advertising is the time involved in dealing with it", "The biggest problem related to receiving SMS advertising is that I feel it is annoying or irritating", "The biggest problem related to receiving SMS advertising is that it blurs the distinction between home, work, and leisure", "I believe that my mobile operator uses my data only for a purpose that I have approved", "I believe that an advertiser would use my data only for a purpose that I have approved", "I believe that the consumer is protected by laws related to data privacy", "Overall, I feel positively about SMS advertising", "I am willing to receive SMS advertising messages in the future", "I would read all the SMS advertising messages I receive in the future"

The scale was modified and adapted for the current study, including alterations to the wording of some questions. Although Merisavo et al.'s (2007) study was conducted on the acceptance of SMS advertising, the wording of questions referred to it as mobile advertising. For the current study, this was thought to confuse consumers, so the wording was changed to SMS advertising. The scale for sections A and B used a seven-point Likert-type scale ranging from "strongly disagree" to "strongly agree", which was consistent with the scale in the original study. According to Matell and Jacoby (1972), seven-point Likert scales are a valid and reliable measure, as they result in less "neutral" responses than three- or five-point Likert scales. This view is consistent with (Nunnally 1978) who stated that seven-point scales generate greater accuracy, as the more points on the scale equates to more reliable results, with diminishing returns occurring after seven points. Section C of the survey instrument ascertains demographic information, and this was taken from Phau and Teah (2009). This section has questions on gender, age group, income and education. A copy of the research instruments for the Australian and South Korean samples can be found in Appendices A and B. Table 3 outlines the measurement sources of the survey instrument.

Section/Construct	Literature Source	α	Survey Questions
Screening questions	Phau and Teah (2009)		Section 1
Behavioural responses to SMS Advertising	Developed for this study		Section 1
Intention to Receive SMS Advertising	Tsang, Ho and Liang (2004)	0.87	Section 1
Acceptance of SMS Advertising	Merisavo et al. (2007)	0.89	Section B
Drivers of Acceptance – Attitudes to Advertising	Elliot and Speck (1998)	0.89	Section A
Drivers of Acceptance – Utility	Merisavo et al. (2007)	0.86	Section B
Drivers of Acceptance – Context	Merisavo et al. (2007)	0.86	Section B
Drivers of Acceptance – Sacrifice	Merisavo et al. (2007)	0.89	Section B
Drivers of Acceptance – Control	Merisavo et al. (2007)	0.83	Section B
Drivers of Acceptance – Trust	Merisavo et al. (2007)	0.78	Section B

Behavioural Response Scale Development

After reviewing the literature, it was found that there is a lack of understanding about consumers' behavioural responses to SMS advertising, which represents a methodological gap in the current literature. No thorough and exhaustive scale has previously been developed to measure consumers' behavioural responses to SMS advertising, which prevents researchers from fully understanding how consumers respond to SMS advertising. An empirically tested and generalisable scale to measure consumers' actual responses to SMS advertising was therefore created for this study. In order to develop the necessary measure, scale items were developed for the purpose of this research.

Behavioural response to advertising is considered to be the emotions, thoughts and behaviours that are a result of advertising exposure. There are generally considered to be three types of response; cognitive, affective and behavioural. Of these, studies into behavioural response generally focus on the extent of persuasion (Petty and Cacioppo 1996). Behavioural response can be considered the final link between initial cognition, attitudes, intention and response.

According to Li, Edwards and Lee (2002), scale items should be generated by reviewing the existing literature (Churchill 1979), conducting thesaurus searches (Wells, Leavitt, and McConville 1971) and consulting academic experts (Chen and Wells 1999; Churchill 1979).

Generation of Scale Items

Items for this scale were created by thoroughly reviewing the existing literature, surveying a sample of university students and consulting academic researchers. A number of scales within the academic literature on behavioural responses to SMS advertising were collected and analysed (Barnes 2002; Tsang, Ho, and Liang 2004; Jun and Lee 2007; Peters, Amato, and Hollenbeck 2007). Of these, two previous scales were identified as suitable to be applied to this study. First, the scale items in Barnes (2002) were used to guide the development of the scale used in this research. The behavioural outcomes of the mobile advertising scale used in this study included the following seven items: (1) Forget/Ignore/Skip, (2) Attend to ad, (3) Form attitude to ad, (4) Click on ad, (5) Phone through, (6) Email advertiser and (7) Purchase/Subscribe/Register. In addition, a scale constructed by Tsang, Ho and Liang (2004) was also considered for the current scale. Tsang, Ho and Liang's (2004) behavioural responses scale included the following four items: (1) Ignore it completely, (2) Read it occasionally, (3) Read it after accumulating too many of them and (4) Read it right away.

In order to gain a further understanding of the potential behavioural responses to SMS advertising, a questionnaire was distributed to 34 students at an Australian university. This questionnaire used open-ended questions to gauge the responses of young consumers. Specifically, respondents were asked to list what they do after receiving SMS advertisements. Popular responses to this questionnaire included delete the message before and after reading, ignore the message, read and keep the message for later, send to friends, purchase/subscribe, and follow up by other media including phone, internet and in person. The questionnaire used can be found in Appendix C.

After adapting the relevant scales used in previous studies and generating items from surveyed respondents, potential items were formed into a preliminary scale. These scale items were then critiqued by academic researchers familiar with the research topic and questionnaire design. This initial list included eight items: Delete Immediately, Read and then delete, Read and keep, Ignore, Read and forward, Read and reply, Read and follow up via other media and Read and purchase. After this review, it was decided to expand the eight-item scale by one item by splitting the item Read and then delete" into the following two items: Read entire message then delete and Read part of the message and then delete. This change was made to account for the possible variance when consumers delete a message after reading it. Following the adding of one item and changes to wording, the final scale to be tested was developed. This scale included the following final nine items: (1) Delete Immediately, (2) Read entire message and then delete, (3) Read part of message and then delete, (4) Read and keep for future referral, (5) Ignore completely, (6) Read and forward to friends, (7) Read and reply/follow up by SMS, (8) Read and follow up via other media and (9) Read and purchase/subscribe.

Ethical Considerations

Ethics is an important consideration when undertaking any research project. In order to ensure the basic ethical research practices are conducted properly, certain steps must be taken and certain obligations fulfilled. Firstly, a respondent's privacy must be respected, that is, they choose whether or not to answer the researcher's questions without any prejudice if they choose not to. Secondly, response confidentiality must be maintained, and the researcher must not reveal the identity of a respondent. These important criteria were met in this study through the provision of a cover page attached to the questionnaire. The cover page for the Australian sample can be found in Appendix D, and for the South Korean sample in Appendix E. On the cover page, the researcher was introduced along with the purpose of the study. Also outlined was the assurance that all responses would be kept confidential and that privacy would be maintained by allowing respondents to withdraw from the questions at any time without prejudice. In addition, the cover page listed contact details for both the researcher and his/her supervisor if any questions should arise. To ensure respondents were not exposed to unfair treatment or mental stress, the survey

instrument was first approved by the University Ethics Committee in accordance with Business School policy. The details of this ethics clearance were also provided on the cover page of the survey. The ethics approval form for this study can be found in Appendix F.

Concluding Comments

This chapter described the various processes and methods used in this research. Specifically, it began by introducing the various types and forms of research and then justified the use of the quantitative method, which is drawn from the positivist paradigm. After describing the type of study, this chapter continued by discussing the research design, specifically the justification for the chosen population and sample size. Next, this section described the proposed data collection methods, primarily through personal administration and online distribution. In addition, it described the scales and measures used in the survey instrument, including the process used for formulating the appropriate scale. Finally, the important ethical considerations of this research were discussed. A full analysis of the collected data and a complete discussion of the results of the study are presented in the next chapter.

CHAPTER 5 – DATA ANALYSIS AND FINDINGS

Introduction

The previous chapter described the methods used in this research, while this chapter presents a full analysis and description of the data collected for this study. First, data analysis types are discussed, and a national comparison of the demographics and phone usage data is outlined to ensure comparable samples across Australia and South Korea. Next, reliability and validity testing is applied on the drivers of consumer acceptance of SMS advertising, ensuring reliable and valid measurements are used across both nation's samples. Descriptive statistics are then included, which present the mean and standard deviation scores for the key variables within the study. Finally, multiple and linear regression is used to test the hypotheses within this study and a mediation analysis conducted on the relationship between the acceptance of SMS advertising, intention to receive SMS advertisements and responses to SMS advertising.

Data Analysis

Reliability and Validity

As explained previously, the majority of variables for this study were obtained from previous research. Even though these variables were developed and tested in the literature, it remained important to retest their reliability and validity. This is the case because a new data set is being used and the study occurs in a different context. Furthermore, the retesting of reliability and validity may be helpful for further validating these scales as measurements of responses to SMS advertising.

Reliability

According to Hair et al. (1998), reliability assesses the degree of consistency between multiple measurements of a variable. The reliability of a measure indicates the consistency of the measurement in relation to the concept, and this helps independently measure the construct

(Sekeran 2003). According to Hair et al. (1998), there are two main ways to test reliability. The first of these is the test-retest method, whereby an individual's response is measured at two different points in time. The idea behind this test is to ensure responses do not vary across time and that, at any given moment, a response will be reliable.

The second measure of reliability is internal consistency, which uses a variety of methods to assess the consistency among items in a scale (Hair et al. 1998). The most popular test of internal consistency for multi-item scales, and the one which was used in this study, is Cronbach's coefficient alpha (Hair et al. 1998; Sekeran 2003). The lowest acceptance limit for Cronbach's alpha is generally deemed to be .70, although 0.6 is often a reliable measure for studies that are exploratory in nature (Hair et al. 1998). While the lower limit is .60, it can be said that the higher the coefficient, that is the closer it is to 1.0, the better is the reliability of the scale items (Sekeran 2003).

Validity

Validity is the extent to which a set of measurement variables accurately predicts the actual concept in question (Hair et al. 1998). In simple terms, a scale is valid if it measures what it is supposed to measure. According to Sekeran (2003), validity tests can be broadly grouped into three categories: content validity, criterion-related validity and construct validity. Content validity is the degree to which the scale items represent the domain of the concept, which can be enhanced by conducting a review of the literature and pre-testing. Criterion-related validity is the degree to which the scale can predict a designated variable. Lastly, construct validity, which is the focus of validity within this study, is the degree to which the scale represents the concept being measured (Sekeran 2003).

Construct validity can be distinguished into two types, convergent and discriminant validity. The first type, convergent validity, is the degree of association between two constructs that aim to measure the same concept (Sekeran 2003). In this study, convergent validity was measured by

correlation analysis, which can predict the correlation of similar items on the acceptance of SMS advertising scale. Secondly, discriminant validity can be considered to be the opposite of convergent validity, namely it is a measure of the lack of association between concepts within the scale that are supposed to be different (Sekeran 2003). Discriminant validity can be measured by factor analysis, which was used in the current study. Factor analysis effectively analyses the structure of the correlation between a large number of scale items by grouping common items into a set of dimensions (Hair et al. 1998). Factor analysis allows the researcher to first identify these dimensions, otherwise known as factors, and then determine the extent to which each variable is explained by each dimension (Hair et al. 1998). This grouping of common items allows the data to be reduced into those factors that have the most importance. In the case of this study, similar items have already been grouped into categories, which form the drivers of acceptance to SMS advertising. Exploratory factor analysis therefore was used to validate the position of each of these items within each dimension, and items without suitable loadings were removed.

Multiple Regression

Multiple regression analysis was the primary technique used to examine Hypotheses 1A to 1F, namely the relationship between the drivers of consumer acceptance and acceptance of SMS advertising. Multiple regression is a statistical technique that is used to analyse the relationship between a dependent variable and several independent variables (Hair et al. 1998). The aim of multiple regression is to use the independent variables to predict the dependent variable selected in the study (Hair et al. 1998). In the case of this analysis, the dependent variable is consumer acceptance of SMS advertising, while the independent variables are the drivers of this acceptance, namely Utility, Context, Control, Sacrifice, Trust and Attitudes to Advertising in General. According to Hair et al. (1998), multiple regression can only be used when both the dependent and independent variables are metric, or transformed into metric scales. As the variables in this section of the study are on metric scales, it is appropriate to use multiple regression to examine their relationships.

The scale for the drivers of consumer acceptance was adapted from Merisavo et al. (2007), which used the Structured Equation Modelling technique to predict these relationships. This technique combines aspects of factor analysis and multiple regression in order to predict relationships simultaneously (Hair et al. 1998). The current study simply aims to examine the variable relationships one at a time, rather than investigating them simultaneously, and therefore multiple regression analysis is sufficient (Chen 2005).

Multivariate analysis

Hypotheses H2 to H5 examined the relationship between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural responses to SMS advertising. In this study, a simple regression technique was used to test these relationships. In order to test H5, the mediating relationship between acceptance, intention and response, a mediation analysis using the Baron and Kenny (1986) method and the Sobel (1982) test was conducted.

Cross-national Comparison

The aim of Research Question 1 is to test whether the acceptance and responses to SMS advertising are different for Australian and South Korean consumers. This is tested by revisiting Hypotheses H1 to H5 using the same methods of data analysis for the Australian sample. The results are compared across the Australian and Korean samples and conclusions discussed.

Demographic Profile

The subjects for this study were generated using a non-probability convenience sampling method, which refers to the collection of information from population members who are conveniently available to provide responses (Sekeran 2003). In the Australian sample, 290 surveys were distributed, and 203 responses collected, for an overall response rate of 70%. In South Korea, 246 surveys were distributed in South Korea altogether and 207 responses collected, realising a response rate of 84%.

According to Perry (1998), responses of 203 and 207 exceed the requirements for a student thesis, which should garner between 50 and 100 responses. The majority of respondents in this study were students, who are considered to be an acceptable sample and representative of the broader population (Yavas 1994). Of the responses in the Australian sample, 49.8% were men and 50.2% were women. Altogether, 94.1% of respondents were below the age of 35, with the majority in the 18–24 age bracket. A total of 79.3% of respondents rated their education level as "undergraduate degree", while 55.7% said their income was less than $15,000 per year, indicating the large number of students within the sample. In South Korea, 78.3% of respondents were women and 21.7% were men. Altogether, 95.7% of South Korean respondents were under the age of 35. A total of 92.8% of the sample described their education level as "undergraduate degree", while 97.1% of respondents indicated a low level of income. The demographic information recorded for the two samples in this study are presented in Table 4.

Table 3: Demographic Comparison

	Australian Sample	South Korean Sample
Gender	49.8% Men/50.2% Women	21.7% Men/78.3% Women
Age	94.1% below 35 yrs	95.7% below 35 yrs
Income	78.3% "low income"	97.1% "low income"
Education	79.3% undergraduate students	92.8% undergraduate students

Sample Comparisons

To ensure the two national samples are comparable, statistical information relating to mobile phone and SMS usage and demographic information including age, gender, education and income were compared. All respondents in both samples had access to a mobile phone and they had all used SMS before. Half (50.8%) of Australian respondents sent an average of more than 20 SMS per week compared with 91.3% of Koreans. This statistic suggests that Koreans use SMS more than Australians and are therefore more familiar with the technology. Although this represents a significant difference between the two samples, it is an expected result. Generally, it is accepted that South Koreans embrace technology quicker than Australians, and therefore they

are more likely to quickly adopt and heavily use a range of mobile services including SMS (Dekimpe, Parker, and Sarvay 2000; Jun and Lee 2007; Okazaki and Taylor 2006).

A total of 92.5% (187) of the Australian sample had received SMS advertisements in the past, and the 16 respondents who had not received SMS advertising messages did not complete further questions relating to SMS advertising. The entire South Korean sample (207) had received SMS advertisements in the past. Notably, 50.2% (102) of the Australian sample were women, while 78.8% (162) of the South Korean sample were women. This indicates a distinct gender difference between the two samples, although the unusually high proportion of women respondents in South Korea may be explained by the compulsory completion of national army service by Korean men in this age group (*CIA - The World Factbook - Korea, South* 2010). Although this represents an issue with the comparability of the data in the cultures, it can be said that gender is a relatively unimportant issue when comparing acceptance and responses to SMS advertising.

Both Australian and South Korean samples comprised predominately young people, with the majority of respondents aged between 18 and 24. In Australia, 94.1% of respondents were younger than 35, while 95.7% of respondents were younger than 35 in South Korea. With regards to income, the two sample groups were also very similar. Over three-quarters (78.3%) of Australian respondents and 97.1% of South Korean respondents were considered to be low-income earners. This confirms the large number of university students in the sample, who rely on part-time employment or other assistance for income. These income levels are also reflected in the education statistics of the two samples. Of the Australian respondents, 161 (79.3%) were either studying or had completed an undergraduate degree. Comparably, 192 (92.8%) of the South Korean respondents were studying or had completed an undergraduate degree. With regards to demographic statistics, the Australian and South Korean samples were thus very similar in the categories of age, income and education.

Reliability Testing

To ensure unidimensionality between scale items, a measure of internal consistency was conducted on the Drivers of Consumer Acceptance scale. As this research is a cross-national comparison, separate tests for the Australian and South Korean samples were carried out (Buss and Royce 1975; Zhang 1999). Cronbach's alpha is the most popular form of internal consistency reliability measure, which is useful for multi-point scale variables (Hair et al. 1998; Sekeran 2003). Each of the scale constructs was tested for reliability, with the Cronbach's alpha scores and Item to Total Correlation analysed.

All constructs attained acceptable reliabilities, with the exception of the Utility measurement in the Australian sample (0.679) and the Sacrifice measurement in the South Korean sample (0.595). Although the Utility construct was lower than the generally accepted lower limit of 0.7, it was retained as a construct to measure consumer acceptance of SMS advertising as it adhered to Hair's (1998) acceptable lower limit of 0.6, which is often accepted. Furthermore, Utility seems to have strong face validity and is logically important to this study. The Sacrifice construct, however, was excluded from further analysis in this study as it was proven to be an unreliable measure (0.595) in the South Korean sample. Even though the Sacrifice construct received an acceptable reliability in the Australian sample (0.720), the scale must achieve acceptable levels across both cultural samples to be a reliable measure in the study, or any differences in the results obtained could be attributed to differences in the sample (Vernon 1955; Zhang 1999).

In order to improve the Cronbach's alpha scores, and thus increase the reliability of the scale, poor-fitting items were removed. Within the Context construct, the item "willing to provide personal details" was removed from further analysis as it was lower than the acceptable limit of 0.5 (Hair et al. 1998). In addition, the item "I believe the consumer is protected by laws relating to data privacy" was removed from the Trust construct for the same reason. Although the Context and Trust constructs were thus reduced to two items each, the scale was a more reliable

measure. Table 5 summarises the Cronbach's alpha scores following the removal of the unreliable Sacrifice construct and two poor-fitting items.

Table 4: Reliability Analysis: Post Removal

		Australia	South Korea
Construct	**Number of Items**	Cronbach's Alpha	Cronbach's Alpha
Utility (H1A)	4 Items	0.68	0.85
Context (H1B)	2 Items	0.86	0.92
Control (H1D)	4 Items	0.81	0.84
Trust (H1E)	2 Items	0.82	0.94
Attitudes to Advertising (H1F)	4 Items	0.89	0.89
Acceptance of SMS advertising	3 Items	0.89	0.85

The reliability analysis shows that the remaining six constructs produce acceptable Cronbach's alpha coefficients, showing that these are sufficiently reliable to measure the drivers of consumer acceptance of SMS advertising.

Validity Testing

The remaining 19 items from the Drivers of Consumer Acceptance of SMS Advertising scale were then tested for validity, using exploratory factor analysis to confirm whether the remaining items loaded onto the appropriate constructs. As with reliability testing, the cross-national nature of this research requires separate testing for each sample (Buss and Royce 1975). In this case, the principal components analysis was used, as the objective was to determine the minimum number of variables that account for the maximum portion of overall variance (Hair et al. 1998). The appropriateness of conducting a factor analysis for this study was first considered. This was carried out using the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. KMO values of 0.775 of and 0.758 were found for Australia and South Korea respectively, which exceeds the minimum requirement of 0.6 (Hair et al. 1998). In addition, Bartlett's test of sphericity was at a significance level of 0.000, also meeting the requirements for factor analysis.

Exploratory factor analysis was conducted, with the latent root criterion or Eigenvalues used to select the number of retained factors. In this analysis, Eigenvalues greater than one were considered to be significant, and this number was used to determine the cut-offs (Hair et al. 1998). For the Australian sample, this method found five factors, with these factors explaining 70.9% of the total variance. For the Korean sample, four factors with significant Eigenvalues were found, explaining 71.1% of the total variance. Upon reviewing the component matrix, however, it was found that some items did not load onto the expected factors and were not representative of the original scale. Another factor analysis was therefore conducted, utilising the priori criterion technique. This technique is appropriate when the number of factors to be extracted is already known in order to extract the same number of factors as in the previous study (Hair et al. 1998). The number of factors was therefore specified to six in order to best represent the data and reflect the original scale. This second test discovered that six factors explained 76.1% of the variance for the Australian sample and 80.8% for the Korean sample.

A rotated component matrix was used to investigate the factorial validity in the measurement scale of the Drivers of Consumer Acceptance of SMS Advertising. This method uses the Varimax rotational approach, as this provides a clear separation of the factors, with variable correlations close to +1 or -1 (Hair et al. 1998). Once analysed, the six factors for both samples largely corresponded to the expected scale items for this study, which were derived from Merisavo et al. (2007) and Elliot and Speck (1998).

Separate factor analyses showed that three factors contained all the items from the Attitudes to Advertising, Control and Trust factors for both the Australians and South Koreans, and these could therefore be attributed to these variables. Another factor contained all the items from Acceptance of SMS advertising, as well as the item "Useful information" from the Utility construct in the Australian sample. After removing this item, which did not load onto its expected factor, this factor could be attributed to the Acceptance of SMS Advertising variable. The item "Entertaining experience", from the Utility construct, did not load onto its expected factor in the Australian sample and was cross-loaded in the Korean sample; thus, it was removed from further analysis. The remaining two items from this factor were then attributed to the Utility variable. After removing the aforementioned "Entertaining experience" item, the final factor contained the items from the Context construct in both samples, and this can be attributed to this variable. The results of the factor analysis for the Australian and South Korean samples, after the appropriate items had been deleted, are detailed in Tables 6 and 7. To further assess validity, as well as determine any multicollinearity issues before regression analysis, a correlation analysis was completed. The results of this analysis are included in appendix G and H.

Table 5: Rotated Component Matrix – Australia

	Attitudes to Advertising	Control	Acceptance of SMS	Context	Utility	Trust

	1	2	Advertising 3	4	5	6
Advertising is enjoyable	0.91					
Advertising is interesting	0.87					
Advertising is informative	0.75					
Advertising is believable	0.73					
Control permission		0.88				
Refuse to receive		0.83				
Filter to match needs		0.82				
Provide permission		0.67				
Read all ads future			0.84			
Willing to receive			0.71			
Feel positive about ads			0.64			
View in specific location				0.83		
View at specific time				0.82		
Saving money					0.90	
Saving time					0.82	
Mobile operator uses data						0.90
Advertiser uses data						0.89
Cronbach's Alpha	**0.82**	**0.80**	**0.73**	**0.82**	**0.86**	**0.90**
Eigenvalue	**6.07**	**2.99**	**1.76**	**1.55**	**1.10**	**0.99**
KMO	**0.775**					
Bartlett's Chi Square	**2223.316**					
Significance	**0.000**					

	Attitudes to Advertising	Control	Acceptance of SMS Advertising	Context	Utility	Trust
	1	2	3	4	5	6
Advertising is enjoyable	0.91					
Advertising is informative	0.87					
Advertising is interesting	0.87					
Advertising is believable	0.74					
Refuse to receive		0.87				
Filter to match needs		0.87				
Control permission		0.86				
Provide permission		0.59				
Read all ads future			0.80			
Willing to receive			0.66			
Feel positive about ads			0.60			
View in specific location				0.87		
View at specific time				0.85		
Saving money					0.92	
Saving time					0.86	
Mobile operator uses data						0.95
Advertiser uses data						0.92
Cronbach's Alpha	**0.85**	**0.80**	**0.69**	**0.86**	**0.90**	**0.94**
Eigenvalue	**6.45**	**2.74**	**0.86**	**1.95**	**2.39**	**0.99**
KMO	**0.758**					
Bartlett's Chi Square	**3081.635**					
Significance	**0.000**					

Overall, 17 of the 19 remaining items were retained after the factor analysis, with the deleted items "Entertaining experience" and "Useful information" coming from the Utility construct. Other than these two, each of the items loaded correctly onto the factor constructs in the study. In addition, each of the retained items met the generally accepted significant level of ±0.50 (Hair et al. 1998). The results show that the remaining 17 variables from the six constructs had acceptable validities and that the scale was a valid measurement of the drivers of consumer

acceptance of SMS advertising. After this analysis, the Drivers of SMS Acceptance scale was found to be a reliable and valid measure, and the same scales were applied to both Australian and South Korean samples.

Descriptive Statistics

Descriptive statistics for the key variables of drivers of the acceptance of SMS advertising, intention to receive SMS advertisements and behavioural responses to SMS advertising are included for the two samples.

Acceptance of SMS Advertising

The means of the five independent variables range from a minimum of 2.78 to a maximum of 5.99 in the Australian sample, and 2.60 to 5.88 in the South Korean sample on the seven-point Likert scales. The first construct, Attitudes to Advertising, had a mean of 4.11 in Australia and 3.95 in South Korea, indicating attitudes towards advertising in general were neutral and similar for both samples. An independent sample T-test indicated that Australian attitudes to advertising were not significantly higher than Korean attitudes to advertising ($p=0.216$). Means of 2.78 and 3.34 for the Utility construct indicate that consumers in both countries do not believe that relevance and usefulness are important components of SMS advertising ($p=0.000$). By contrast, means of 4.38 and 4.09 for the Context variable indicates Australian consumers believe that the time and place they receive advertising messages is somewhat more important than Koreans ($p=0.046$). Mean scores of 5.99 and 5.88 for Control indicate that consumers in both cultural samples place high importance on being able to provide permission to receive advertisements, although a non-significant finding means that it cannot be determined whether Australians deem this more important than Koreans ($p=0.465$). Means of 4.03 (Australia) and 2.63 (South Korea) for Trust indicate that Australian consumers place higher importance on the trust of marketers and mobile operators than South Korean consumers ($p=0.000$). The dependent variable of Acceptance of SMS advertising received a mean score of 3.01 in Australia and 2.60 in South Korea. This indicated that in general the acceptance of SMS advertising is low in both cultures,

with consumers in Australia slightly more accepting of SMS advertising messages than those in South Korea (p=0.002). This information is included in Table 8.

Table 7: Descriptive Statistics

Construct	Australia		South Korea		T-test
	Mean	Std. Dev.	Mean	Std. Dev.	Sig.
Attitudes to Advertising	4.11	1.58	3.95	1.69	0.216
Utility	2.78	1.39	3.34	1.73	0.000
Context	4.38	1.62	4.09	1.83	0.046
Control	5.99	1.31	5.88	1.42	0.465
Trust	4.03	1.71	2.63	1.54	0.000
Acceptance	3.01	1.71	2.60	1.50	0.002

* significant at $p = 0.005$

Intention to Receive SMS Advertisements

Frequency statistics suggest that Australian consumers are not willing to receive SMS advertisements. Almost all (96.8%; 181) of the sampled consumers indicated they would be willing to receive less than one SMS advertising message per day, with just 3.2% (6) of respondents willing to receive two messages per day, and no respondents willing to receive more than two per day. South Korean respondents are also generally unwilling to receive SMS advertisements, although more willing than Australians, with 72.5% (150) indicating they would be willing to receive less than one message per day. A total of 17.4% (36) were willing to receive two messages per day, 7.2% (15) would receive three messages per day and 2.9% (6) were willing to receive more than four SMS advertising messages per day.

Behavioural Response to SMS Advertising

Although Australian respondents were less willing to receive SMS advertisements, their behavioural responses to messages were more favourable. Altogether, 44.4% (83) of respondents indicated that they would read part of the message and then delete it, while 18.2% (34) would read the entire message before deleting it and 7.5% (14) would read and keep for future referral. Therefore, 70.1% of Australians would read at least part of the message, with the rest choosing to delete immediately (20.3%) or ignore the message completely (9.6%). By contrast, South Korean respondents were generally less favourable in their behavioural responses to SMS advertising, with 15.9% (33) saying they would read part of the message and then delete, 23.2% (48) would read the entire message before deleting, and just 1.4% (3) would read and keep for future referral. Therefore, only 40.5% of Koreans would read at least part of the message and the rest would either delete immediately (30.4%) or ignore completely (29%).

Hypotheses Testing

Drivers of Consumer Acceptance of SMS Advertising

Hypotheses 1A–1F in this study relate to the drivers of consumer acceptance of SMS advertising. Multiple regression analysis was used to test these hypotheses across the two samples. The purpose of multiple regression is to create an equation that will predict the influence that independent variables have on a dependent variable (Einspruch 2005). In this study, this means determining the impact that the independent variables of Utility, Context, Control, Trust and Attitudes to Advertising have on the dependent variable Acceptance of SMS advertising. In order to confirm the suitability of the multiple regression technique, the linearity of relationships, constant variance of residuals and normality of residual distribution was tested (Hair et al. 1998). If the relationship between the independent and dependent variables is not linear, the analysis will assume it is linear and therefore result in an underestimation of the strength of the relationship (Hair et al. 1998). In this study, linearity was examined by undertaking partial regression plots between each independent variable and the dependent variable. The partial regression plots for both samples indicated no non-linear relationships, indicating the suitability of a multiple regression analysis (Hair et al. 1998).

The summary results for the multiple regression analysis on the Australian sample indicate an R^2 value of 0.487, with 0.527 for the South Korean sample. R^2 measures the proportion of the variance of the dependent variable that is explained by the independent variables (Hair et al. 1998). The closer this R^2 value is to one, the more variance is explained. In this case, the independent variables of Utility, Context, Control, Sacrifice, Trust and Attitudes to Advertising explain 48% of the variance of the acceptance of SMS advertising in the Australian sample, and 52.7% in the South Korean sample. These percentages are significant, with a p value of 0.000. By analysing the significance level of the regression coefficients of the five constructs, we can establish whether Hypotheses 1A–1F in this study are supported or rejected. According to Hair et al. (1998), the relationships are significant if the significance level is below 0.05.

A significant, positive relationship between Utility and Acceptance of SMS advertising for both Australians and South Koreans was found. Therefore, H1A is supported. There was a significant, positive relationship between Context and Acceptance of SMS advertising in both samples, and therefore H1B is accepted. A significant relationship was found between Control and Acceptance of SMS advertising in the Australian sample ($p = 0.043$); however, the relationship was not positive, meaning H1D is not accepted for Australia. H1D is also not accepted for South Korea ($p = 0.927$). This means that Control is not a significant driver of consumer acceptance of SMS advertising in Australia and South Korea. The construct Trust showed no significant relationship in the Australian sample ($p = 0.666$), but there was a significant relationship in the South Korean sample ($p = 0.000$). Therefore, H1E is not accepted for Australia and is accepted for South Korea. Finally, there was a significant relationship between Attitudes to Advertising and Acceptance in both samples; therefore, H1F is accepted. The results of the multiple regression analysis are summarised in Table 9.

Construct	Australia		South Korea	
	Standardised Coefficients Beta	**Significance**	**Standardised Coefficients Beta**	**Significance**
Attitudes to Advertising (H1F)	0.379	0.000	0.154	0.003
Utility (H1A)	0.225	0.001	0.259	0.000
Context (H1B)	0.249	0.000	0.368	0.000
Control (H1D)	-0.120	0.043	0.005	0.927
Trust (H1E)	-0.026	0.666	0.317	0.000

* significant at $p = 0.005$

In addition to the significance levels, the standardised coefficient beta scores also provide a useful insight into the relative effect of each of the independent variables on the drivers of consumer acceptance of SMS advertising (Hair et al. 1998). Among the five constructs, Attitudes to Advertising had the highest beta score (0.379) in the Australian sample, indicating that it had the greatest impact on the acceptance of SMS advertising. Context (0.249) was found to be the second most important construct for the Australian sample, with Utility (0.225) having the weakest positive impact on the acceptance of SMS advertising. By contrast, the Context construct had the highest beta score (0.368) in the South Korean sample. This was followed by the Trust (0.317) and Utility (0.259) constructs, and Attitudes to Advertising (0.154) had the weakest positive impact in the South Korean sample.

Relationship between Acceptance, Intention and Response to SMS Advertising

Hypotheses H2, H3 and H4 were tested using regression analysis. The constructs Intention to receive SMS advertising and Responses to SMS advertising were re-coded into nominal scales to ensure their suitability for regression analysis. This was carried out by re-coding the existing ordinal scales into four-point Likert scales with the categories Strongly Disagree, Disagree, Agree and Strongly Agree. For the Intention construct, "willingness to receive less than one

message per day" was re-coded to "Strongly Disagree" and "willingness to receive two messages per day" was re-coded to "Disagree". "Willingness to receive three messages per day" was re-coded to "Agree" and "over four messages per day" re-coded to "Strongly Agree". For the Response construct, "delete immediately" and "ignore completely" were re-coded to "Strongly Disagree". "Read part of the message then delete" and "read entire message then delete" were re-coded to "Disagree". "Read and keep for future referral", "read and forward to friends", "read and reply" and "read and follow up by other media" were re-coded to "Agree". "Read and purchase or subscribe" was re-coded to "Strongly Agree".

H2: Relationship between Acceptance and Response

H2 tests the relationship between the Acceptance of SMS advertising and consumers' Intention to receive SMS advertisements. In the Australian sample, a direct, positive relationship was found between the Acceptance of SMS advertising and Intention to receive SMS advertisements ($p = 0.000$, $\beta = 0.324$). Similarly, the South Korean data showed a direct, positive relationship between Acceptance and Intention to receive SMS advertisements ($p = 0.023$, $\beta = 0.158$). Therefore, it can be said that H2 is accepted for both Australians and South Koreans, and there is a positive relationship between the Acceptance of SMS advertising and consumers' Intentions to receive SMS advertisements.

H3: Relationship between Intention and Response

H3 tests the relationship between consumers' intentions to receive SMS advertisements and their behavioural responses to SMS advertisements. In the Australian sample, a direct, positive relationship was identified between Intention to receive and Response ($p = 0.015$, $\beta = 0.178$). In the South Korean sample, however, the analysis failed to find a significant relationship between Intention and Response ($p = 0.513$, $\beta = 0.046$). Therefore, H3 is accepted for the Australian sample, where a positive relationship between Intention to receive SMS advertisements and Response to SMS advertisements exists, but is rejected for the South Korean sample, where no significant relationship emerged.

H4: Relationship between Acceptance and Response

H4 tests the direct relationship between the Acceptance of SMS advertising and Response to SMS advertising. In the Australian sample, a direct, positive relationship was found between the Acceptance of SMS advertising and Response to SMS advertising ($p = 0.000$, $\beta = 0.548$). Furthermore, the South Korean data analysis also indicated a direct, positive relationship ($p = 0.000$, $\beta = 0.269$). It can be concluded therefore that H4 is supported for the Australian and South Korean samples and that there is a direct, positive relationship between the Acceptance of SMS advertising and Response to SMS advertising. The data relating to these findings are shown in Table 10.

Table 9: Regression Analyses

	Australia		South Korea	
Construct	**Standardised Coefficients Beta**	**Significance**	**Standardised Coefficients Beta**	**Significance**
H2: Acceptance/Intention	0.324	0.000	0.158	0.023
H3: Intention/Response	0.178	0.015	0.046	0.513
H4: Acceptance/Response	0.548	0.000	0.269	0.000

* significant at $p = 0.005$

By examining the standardised coefficient beta scores, an idea of the strength of each relationship emerges. It can be seen that the strongest relationship for both samples is the one between the acceptance of SMS advertising and response to SMS advertising. This indicates that for consumers in both Australia and South Korea, behavioural action towards SMS advertising is heavily influenced by their acceptance of SMS as an advertising tool.

H5: Mediation Analysis

H5 tests the mediating affect of Intention to receive SMS advertising on the relationship between Acceptance of SMS advertising and Response to SMS advertising. The Baron and Kenny (1986) method and, if necessary, the Sobel (1982) test were used to conduct the mediation analysis. The

Baron and Kenny (1986) mediation method involves a series of regressions in order to determine the impact of the mediator.

Australian Sample

Mediation analysis was first conducted on the Australian sample. The first step was to test the relationship between the independent variable (Acceptance) and the dependent variable (Response). As indicated in the previous analysis, there is a significant relationship between Acceptance and Response in the Australian sample (p= 0.000, β = 0.548). Therefore, there is an effect to mediate. Second, there must be a significant relationship between the independent variable (Acceptance) and the mediator (Intention). As indicated in the previous analysis, Acceptance and Intention were found to be significantly related (p= 0.000, β = 0.324). The third step is to test whether the mediating variable affects the outcome variable. This is done by simultaneously predicting the value of the dependent variable (Response) from the independent (Acceptance) and mediating (Intention) variables using multiple regression. If a significant reduction in the relationship between the independent and dependent variables has occurred, this can be attributed to the impact of the mediating variable. In the Australian sample, no significant relationship between the mediating variable (Intention) and dependent variable (Response) was found in the mediation analysis (p= 0.987, β = 0.001). As the relationship between the mediator and outcome variables is not significant, it cannot be accurately determined whether a mediation effect has taken place between Acceptance, Intention and Response. Hence, H5 is not accepted.

South Korean Sample

In the South Korean sample, the relationship between the independent variable (Acceptance) and dependent variable (Response) was first tested. As indicated in the analysis, there is a significant relationship between Acceptance and Response for the South Korean sample (p= 0.000, β = 0.269). Therefore, there is an effect to mediate. Second, a significant relationship must exist between the independent variable (Acceptance) and mediator (Intention). As highlighted in the analysis, Acceptance and Intention were found to be significantly related in the South Korean sample (p= 0.023, β = 0.158). As with the Australian sample, the third step is to test whether the

mediating variable affects the outcome variable. This is done by simultaneously predicting the value of the dependent variable (Response) from the independent (Acceptance) and mediating (Intention) variables using multiple regression. Mediation analysis conducted on the South Korean sample indicated no significant relationship between the mediating variable (Intention) and outcome variable (Response) (p= 0.961, β = 0.003). Therefore, H5 is also not accepted in the South Korean sample. In other words, Intention is not a mediator in the relationship between Acceptance and Response to SMS advertising. It can therefore be concluded that Intention to Receive SMS Advertising is not a mediator in the relationship between Acceptance and Response in neither the Australian nor the South Korean sample. The results of the mediation analysis for the two samples with Response as the dependent variable are shown in Table 11.

Table 10: Mediation Analysis

	Australia	South Korea
Construct	Sig.	Sig.
Acceptance	0.000	0.000
Intention to receive	0.987	0.961

* significant at p = 0.005

Summary of the Findings

Table 11: The Results of Hypotheses Testing

Hypothesis	The findings for the	The findings for the South Korean

	Australian Sample	Sample
H1A: Consumers' perceived utility of SMS advertising is positively related to their willingness to accept SMS advertising.	Supported	Supported
H1B: Consumers' utilisation of contextual information in SMS advertising is positively related to their willingness to accept SMS advertising.	Supported	Supported
H1D: Consumers' perceived control of SMS advertising is positively related to their willingness to accept SMS advertising.	Unsupported	Unsupported
H1E: Consumers' trust in information privacy of SMS advertising is positively related to their willingness to accept SMS advertising.	Unsupported	Supported
H1F: Consumers' attitudes to advertising in general are positively related to their willingness to accept SMS advertising.	Supported	Supported
H2: Consumers' acceptance of SMS advertising affects their intentions to receive SMS advertising	Supported	Supported
H3: Consumers' intentions to receive SMS advertising affect their behavioural responses to SMS advertising	Supported	Unsupported
H4: There is a direct relationship between the acceptance of SMS advertising and behavioural response to SMS advertising	Supported	Supported
H5: Intention to receive SMS advertising is a mediator between the acceptance of SMS advertising and behavioural response to SMS advertising	Unsupported	Unsupported

Concluding Comments

This chapter analysed the results that were collected from the data in this study. The description of the demographic and phone usage data for Australia and South Korea found the samples to be comparable. The reliability and validity of the drivers of the consumer acceptance scale was tested, with 17 of the initial 26 items retained and one construct removed from further analysis. The resulting scale was a reliable and valid measure, which could be used in further analysis for both Australian and South Korean samples. Regression analysis was then conducted to test the

hypotheses within the study, and the results compared across both samples. Hypotheses 1A–1F tested the drivers of the acceptance of SMS advertising. The findings indicated that three of the five constructs (Utility, Context and Attitudes to advertising) were considered to be significant drivers of the Acceptance of SMS advertising in both Australian and Korean contexts, and thus H1A, 1B and 1F were accepted for both samples. The construct Control was not considered to be a significant driver of Acceptance in either sample, thus rejecting H1D in both instances. Trust was found to be a significant driver of Acceptance in South Korea but not in Australia, therefore accepting H1E in South Korea and rejecting it in Australia. H2, H3 and H4 then tested the relationship between Acceptance, Intention to receive and Response to SMS advertisements. The results showed a significant relationship between Acceptance and Intention in both Australia and South Korea, and H2 was accepted for both samples. A significant relationship was found between Intention and Response in Australia but not in South Korea, therefore accepting H3 in the Australian sample and rejecting H3 in the Korean sample. Significant relationships were found between Acceptance and Response in both samples, and thus H4 was accepted in both samples. Finally, mediation analysis was conducted to test H5. This indicated no significant mediation relationship between Acceptance, Intention and Response in either sample, therefore rejecting H5 for Australia and South Korea. The next section describes these findings in more detail and discusses the implications of these results.

CHAPTER 6 – DISCUSSION OF FINDINGS

Introduction

In the previous chapter, the data obtained from surveys were analysed. This chapter aims to discuss the findings of that analysis in more detail. First, the findings on the drivers of consumer acceptance of SMS advertising and the relationships between acceptance, intention and response are discussed. These findings are linked to the broader literature and explained. Next, this chapter compares the findings from the Australian and South Korean samples and explains the results in light of the broader literature.

Discussion of the findings

The purpose of this research is to examine consumers' acceptance and responses to SMS as an advertising tool. First, this study aimed to gain an understanding of the drivers of the acceptance of SMS advertising. It then examined the relationship between the acceptance of SMS advertising, consumers' intentions to receive SMS advertising messages, and their behavioural responses to SMS advertisements. These issues were examined cross-nationally by comparing Australian and South Korean consumers. As seen in the data analysis, the reliability and validity of the relevant scales were evidenced across both national contexts. The results of the hypotheses testing indicated that the constructs Context, Utility and Attitudes to Advertising in General were significant drivers of consumer acceptance of SMS advertising in both Australia and South Korea. Trust was found to be a significant driver of acceptance in South Korea but not in Australia, and Control was not a significant driver of acceptance in either country. Further hypotheses testing focused on the relationships between the acceptance of SMS advertising, intention to receive SMS advertising and response to SMS advertising. A significant relationship between acceptance and intention was found in both samples, while the relationship between

intention and behavioural response was significant for the Australian sample but not for the Korean sample. Both Australia and South Korea were found to have significant relationships directly between acceptance and response, and it was found that intention is not a mediator in this relationship for either nation's sample. These results are now discussed in more detail.

Drivers of Consumer Acceptance of SMS advertising

Utility of SMS Advertisements (H1A)

Based on the review of the literature, it was expected that message-related benefits to consumers receiving SMS advertisements are an important driver of consumer acceptance of SMS advertising. These benefits include information and entertainment value, usefulness and relevance, and they collectively form the total utility perceived by the consumer. Hypothesis 1A stated:

Consumers' perceived utility of SMS advertising is positively related to their willingness to accept SMS advertising.

After the analysis, a positive relationship between Utility and Acceptance was found for both Australians and South Koreans, providing support for Hypothesis 1A. This means that perceived utility is an important driver of consumer acceptance of SMS advertising. This result reflects the notion that the benefits consumers perceive within advertisements are important determinants of whether they accept this advertising medium. This finding supports the results of the majority of the studies in the literature that have highlighted the importance of message content, entertainment value and monetary incentives on the acceptance of SMS advertising (Basheer and Ibrahim 2010; Bauer et al. 2005; Carroll et al. 2007; Kim, Park, and Oh 2008; Krishnamurthy 2001; Maneesoonthorn and Fortin 2006; Merisavo et al. 2007; Nasco and Bruner 2008). Utility was found to be an important driver of acceptance for both Australian and South Korean consumers. This indicates that national boundaries do not have an impact on the importance consumers place on message content, relevance, entertainment value and monetary value with regards to receiving SMS advertisements.

Context of SMS Advertisements (H1B)

The second construct within the acceptance of SMS advertising was Context, which refers to the expectation that a consumer's willingness to accept SMS advertising is influenced by the time and location in which they receive the communication. Hypothesis 1B stated:

Consumers' utilisation of contextual information in SMS advertising is positively related to their willingness to accept mobile advertising.

After the analysis, a strong positive relationship was found between Context and Acceptance in both samples, meaning Hypothesis 1B was supported for Australians and South Koreans. Indeed, the context construct was found to be the most important driver of acceptance in the South Korean sample and the second most important construct in the Australian sample. This indicates that both Australian and South Korean consumers believe time/place information is vital when receiving SMS advertisements that and this strongly influences their acceptance of SMS as an advertising medium. This result supports the general consensus in the literature, which has identified that the time and place within which consumers receive advertisements affect the acceptance of the medium (Barwise and Strong 2002; Heinonen and Strandvik 2003; Ho and Kwok 2003; Merisavo et al. 2007; Pura 2005). Crucially, the strong relationships between context and acceptance in this study reflect the views of Pura (2005), who found context to be the single most important factor in the use of SMS advertising. In addition, Merisavo et al. (2007) also found context to be a particularly strong driver of acceptance. This finding supports the notion of conditional value within an Australian and a Korean context, which states that information that is time- and location-specific adds value for the consumer (Pura 2005).

Control of SMS Advertisements (H1D)

The third concept tested is Control, which relates to the influence of consumer permission and privacy on the acceptance of SMS advertising. Hypothesis 1D stated:

Consumers' perceived control of SMS advertising is positively related to their willingness to accept mobile advertising.

After the analysis of the survey results, it was found that there was not a significant, positive relationship between Control and Acceptance in both the Australian and the South Korean samples. Hypothesis 1D was thus rejected, indicating that consumers' abilities to control the number and types of messages they receive does not affect the acceptance of the medium. These findings contradict the vast majority of the literature on this topic, which has found that consumers are more likely to accept SMS advertising if they have provided permission to receive messages and have control over the messages they receive (Bamba and Barnes 2007; Barnes and Scornavacca 2004; Bauer et al. 2005; Carroll et al. 2007; Dickinger et al. 2004; Grant and O'Donohoe 2007; Hanley and Becker 2008; Khan and Allil 2010; Leppäniemi and Karjaluoto 2005; Maneesoonthorn and Fortin 2006; Muk 2007a; Okazaki, Li, and Hirose 2009; Rettie and Brum 2001; Tsang, Ho, and Liang 2004).

While contradictory to the majority of the literature, some research has indicated similar results. Merisavo et al. (2007), whose study focused on Finnish consumers, also found that control did not impact on SMS advertising acceptance. This finding was supported by Khan and Allil (2010), whose cross-national study into the adoption of mobile advertising found that control was important for Indian consumers but not for Syrian consumers. According to Merisavo et al. (2007), one possible explanation for these results is that consumers may take it for granted that advertisers do not send consumers unsolicited messages. Consumers may believe the issue of permission and privacy is irrelevant to them, and therefore not important enough to influence acceptance. This notion is supported by the strict anti-spam laws in Australia and South Korea, which dictate that advertisers cannot send messages without prior permission (Bueti 2005). Indeed, the regulatory authorities in Australia and South Korea have cooperated to produce a memorandum of understanding to combat spam SMS advertising (Bueti 2005). Similar anti-spam laws exist in Finland, the origin of Merisavo et al.'s (2007) study, which may explain the similarity in findings for studies in these two countries. Differing results between this and other studies in the literature warrant further research. As highlighted by Merisavo et al. (2007), further research is particularly necessary in countries where permission legislation is less stringent and where mobile advertisers may use their own discretion when sending SMS communication.

The fourth driver of the acceptance of SMS advertising relates to the trust that consumers have in advertisers and marketers that they will not abuse the personal information provided. It is proposed that if consumers trust that their personal information will not be misused, they are more likely to accept SMS advertising. Hypothesis 1E therefore stated:

Consumers' trust in privacy and the laws of SMS advertising is positively related to their willingness to accept mobile advertising.

After data analysis, it was found that there was no significant relationship between Trust and Acceptance of SMS advertising in Australia, although a positive relationship did exist for South Korea. Hypothesis 1E was therefore rejected for Australia and accepted for South Korea. Australian consumers do not perceive Trust to have a significant influence on their acceptance of SMS advertising, whereas South Korean consumers do. The results for the South Korean finding reflect those of Merisavo et al. (2007), who found there was a relationship between Trust and Acceptance in Finland.

A possible reason for this contradiction in findings may relate to familiarity with SMS advertising. Australian consumers have had comparatively less exposure to SMS advertising than Koreans, meaning it is likely they have had fewer negative experiences with advertisers misusing their data. This lack of negative experience could mean consumers are more likely to trust advertisers with their personal data and therefore does not influence their acceptance of the medium. By contrast, South Korean consumers have indicated that the trust of advertisers is an important driver in their acceptance of SMS advertising and they have also been found to be exposed more regularly to SMS advertising than Australians (Kim, Heo, and Chan-Olmsted 2010; Phau and Teah 2009). Therefore, there is a greater chance of the actual misuse of data and a higher chance of consumers having negative experiences with the medium. This notion of extensive exposure and negative experience is supported in the literature, with Basheer and Ibrahim (2010) reporting that consumers who have been consistently exposed to SMS advertising, or have had previous negative experiences, are less likely to provide their personal details to SMS advertisers. Previous negative experiences, therefore, could lead South Korean

consumers to rate trust in advertisers as an important determinant of the acceptance of SMS advertising. Differing findings in this study warrant further research into trust as a driver of the acceptance of SMS advertising. Future research is warranted to compare countries with varying levels of exposure to and familiarity with SMS advertising.

Attitudes to Advertising in General (H1F)

The final concept within the drivers of consumer acceptance relates to the relationship between consumers' attitudes towards advertising in general and their acceptance of SMS advertising. Based on the literature review, this concept was deemed important and was included in this study to extend the work of Merisavo et al. (2007). It was expected that consumers' acceptance of SMS advertising is influenced by their attitudes to advertising in general. Hypothesis 1F therefore stated:

Consumers' attitudes to advertising in general are positively related to their willingness to accept SMS advertising.

After the data analysis, it was found that there was a strong significant relationship between attitudes to advertising and acceptance across both nationalities, meaning Hypothesis 1F was supported in both Australia and South Korea. This finding reinforces the view of Bauer et al. (2005), whose research found a strong link between attitudes towards SMS advertising and advertising in general. As SMS advertising is still a relatively new concept in both Australia and South Korea, consumer attitudes towards it are unstable and influenced by attitudes to advertising in general, which have been shaped over a significant period of time. The findings in this current study expand on that knowledge, suggesting that the acceptance of a new advertising medium is also heavily influenced by previous attitudes towards advertising in general. In the Australian sample, attitudes to advertising in general were found to be the strongest driver of the acceptance of SMS advertising. However, South Korean consumers rated attitudes to advertising as a weak driver of acceptance. This further reinforces the differences in the amount of exposure to SMS advertising between the two countries. Australian consumers, who have had very little experience with the medium, indicated their acceptance of SMS advertising is heavily influenced by attitudes to advertising in general, which reflects their unfamiliarity. South Koreans, who are

more familiar with SMS advertising, are not as heavily influenced by previous attitudes to other forms of advertising, indicating the impact of their experience with SMS advertising.

Relationship between Acceptance, Intention and Response (H2–H5)

After the drivers of the acceptance of SMS advertising had been analysed, the next step in this study was to test the relationships between acceptance, intention and response. According to the literature review and application of the relevant theory, it was expected that a relationship existed between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural response to SMS advertising. The first hypotheses in this series of relationships tested the relationship between acceptance and response. Hypothesis 2 therefore stated:

H2: Consumers' acceptance of SMS advertising affects their intentions to receive SMS advertising

After data analysis had been conducted, a positive relationship was discovered for the Australian and South Korean samples, and therefore Hypothesis 2 was supported in both instances. This indicated that both countries supported the link between acceptance and intention. If consumers are accepting of SMS as an advertising medium, then they are likely to intend to receive SMS advertising messages. Conversely, if consumers are not accepting of the medium, they do not intend to receive them, or intend to receive fewer messages. This finding supports the general consensus in the mobile advertising literature, which indicates that consumers' acceptance of mobile or SMS advertising is positively related to their intentions to receive advertisements (Jun and Lee 2007; Muk 2007a; Radder et al. 2010; Tsang, Ho, and Liang 2004).

The next test determined the relationship between intention and response to SMS advertisements. It was expected that a positive relationship existed between consumers' intentions to receive SMS advertisements and their behavioural responses to those advertisements. Hence, Hypothesis 3 stated:

H3: Consumers' intentions to receive SMS advertising affect their behavioural responses to SMS advertising

After the analysis, a direct positive relationship was discovered between intention and response in the Australian sample, but not in the South Korean sample. Hypothesis 3 was therefore accepted for Australia and rejected for South Korea. The identified link between acceptance and response in the Australian sample indicates that if consumers intend to receive SMS advertisements, they are more likely to have positive behavioural reactions to them. These positive responses may include reading the message, forwarding to friends, purchasing or taking some other follow-up action. Conversely, if Australian consumers do not intend to receive SMS advertisements, they are likely to respond negatively to advertising messages, generally ignoring or deleting them. This link between intention and response reflects other findings in the literature, which have also indicated a strong relationship between intention and response (Jun and Lee 2007; Tsang, Ho, and Liang 2004).

The findings of this study indicate that South Korean consumers' behavioural responses to SMS advertising are not linked to their intentions to receive SMS advertisements. This indicates that consumers' actions to not depend on whether they intend to receive messages or not, and those who are willing to receive SMS advertisements may choose to ignore or delete messages. In addition, those who do not intend to receive SMS advertisements may indeed respond positively to advertisements by reading them and taking some sort of follow-up action. This finding contradicts the existing mobile advertising literature on this topic, which has found that intention to receive SMS advertising does influence consumers' responses to it (Jun and Lee 2007; Tsang, Ho, and Liang 2004). One possible reason for the breakdown in this relationship may involve message-related factors. It may be that the content of the advertising message has more influence than consumers' preconceived intentions to receive SMS advertising messages. For example, if Korean consumers are generally unwilling to receive messages, they may still respond favourably to a message if it offers enough value to them. Conversely, those consumers who are generally willing to receive SMS advertisements may respond negatively to a message if it does not offer enough value to them. In this sense, the value of the message content is strong enough to override generalisations about intention and response. This occurs in contrast to Australian consumers, who may not see the impact of other factors such as message content being able to override their preconceived relationships between intention to receive and behaviour.

While the link between intention and response has been consistently proven in the advertising literature, there is a general lack of research conducted on this relationship in SMS advertising, and no previous findings have been recorded in South Korea. This result may offer an insight into the possibility that SMS advertising defies traditional advertising conventions in some markets and does not necessarily behave the same as more traditional forms of advertising. It is therefore important to conduct further research into this relationship in order to identify the factors that may override the otherwise proven notion that intention impacts on response. This is particularly important in South Korea, where no previous research has tested this relationship.

Next, this study tested the direct relationship between acceptance and response. It was expected that a direct, positive relationship existed between the acceptance of SMS as an advertising tool and behavioural response towards it. Hypothesis 4 therefore stated:

H4: There is a direct relationship between the acceptance of SMS advertising and behavioural response to SMS advertising

Data analysis showed significant, positive relationships for both the Australian and Korean samples between the acceptance of SMS advertising and behavioural response to SMS advertising. Therefore, Hypothesis 4 was accepted in both instances. It is also noted that very strong relationships for both samples were found between acceptance and response. This indicates that the behavioural response to SMS advertising is heavily dependent on whether the consumer accepts SMS as an advertising medium. If consumers are accepting of the medium, they are likely to respond positively to advertisements, by reading and replying to them, forwarding to friends or following up via other media such as the internet. By contrast, if consumers are not accepting of SMS advertising, the relationship between these variables indicated they were likely to respond negatively by ignoring or deleting messages. The findings of this study indicate that both Australian and Korean respondents are generally not accepting of SMS advertising. This link between acceptance/attitudes and behavioural response is supportive of the wider view in the literature, which suggests that behaviour is strongly linked to attitudes or acceptance (Barnes 2002; Jun and Lee 2007; Peters, Amato, and Hollenbeck 2007).

The final hypothesis in this study tested the mediating effect of intention on the relationship between acceptance and response. It was expected that consumers' intentions to receive SMS advertising are a mediator in the relationship between consumers' acceptance of SMS advertising and their behavioural responses to it. Therefore, Hypothesis 5 stated:

H5: Intention to receive SMS advertising is a mediator between the acceptance of SMS advertising and behavioural response to SMS advertising

Data analysis showed that intention did not mediate the relationship between acceptance and response in either sample. This means that Hypothesis 5 is rejected for both Australian and South Korean samples. It can be said, therefore, that intention to receive SMS advertising does not have an impact on the relationship between acceptance and response to SMS advertising.

Cross-national Discussion

A key purpose of this study was to determine whether Australian and South Korean consumers differed in their acceptance of and response to SMS advertising. Research Question 1 was formulated to determine any similarities and differences that exist between consumers from the two countries. Hence, RQ1 stated:

RQ1: Is acceptance, intention and response to SMS advertising different for Australian and South Korean consumers?

The results of this study generally suggest that acceptance, intention and responses to SMS advertising are similar for Australians and South Koreans, although some differences do exist. The data collected for the purpose of this study have shown that Koreans generally use SMS more than Australians and thus they have received more SMS advertisements, making them more familiar with the concept of SMS advertising. Both nations were found to have a low acceptance of SMS advertising, although Australians were slightly more accepting of the medium than Koreans. Both nations also indicated that they are generally unwilling to receive SMS advertisements. In addition, both Australian and Korean consumers were likely to respond negatively to SMS advertisements, with very few respondents in either country likely to make a purchase decision from an advertisement. South Korean consumers responded more negatively

than Australians, with most choosing to delete immediately or completely ignore the message, whereas Australian consumers tended to read the message before deleting it. From these statistics, both Australians and South Koreans were shown to be negative in their outlooks towards SMS advertising, which is reflective of the findings in the literature. Many studies in the literature have indicated that consumers do not view SMS advertising favourably, regardless of country of origin (Haghirian and Madlberger 2007; Muk 2007a, 2007b; Choi, Hwang, and McMillan 2008).

The first set of hypotheses within this study tested five drivers of consumer acceptance of SMS advertising. It was found that Australian and South Korean consumers agree on the importance of four of these five drivers of acceptance. Both considered Utility (H1A), Context (H1B) and Attitudes to Advertising in General (H1F) to be important drivers of acceptance of the medium. Consumers in both countries also indicated that Control (H1D) was not a positive driver of acceptance. Consumers from the two countries, however, disagreed on Trust (H1E) as a driver of acceptance. South Koreans indicated the importance of Trust in advertisers and laws on their acceptance of SMS advertising, while Australians did not perceive Trust to have an impact on acceptance. The means South Koreans place more importance on the need to trust advertisers with their personal data and the laws that protect misuse. The general similarity in findings indicates that the importance of message-related factors, such as the content of the message, the context in which it is received and existing attitudes to advertising, are vital to consumers regardless of country or culture. In addition, control over the number and types of SMS advertisements received is not important to consumers regardless of nationality.

The next set of hypotheses in this study measured the relationships between acceptance, intention and response to SMS advertising. The findings again suggested that consumers from Australia and South Korea had similar responses in these relationships. In both Australian and Korean samples, positive relationships were found between acceptance and intention (H2) as well as between acceptance and response (H4), and both samples indicated that intention was not a mediator in the relationship between acceptance and response (H5). The relationship between

intention and response (H3) was, however, different for the samples. Australian consumers indicated that there is a positive relationship between intention to receive SMS advertisements and behavioural response to advertisements, whereas no relationship was found in the Korean sample. This was attributed to the notion that Korean consumers' responses to SMS advertisements may be more dependent on message-related factors than their intentions to receive SMS advertising.

Some differences existed between the two samples, notably the importance of trust as a driver of acceptance and the relationship between intention to receive advertisements and behavioural response. These differences were, however, overshadowed by the majority of the findings in this study, which suggested that Australians and South Koreans have similar levels of acceptance of SMS advertising, similar intentions to receive SMS advertisements and similar behavioural responses to SMS advertisements. In addition, Australians and Koreans agree on the importance of the majority of the drivers of the acceptance of SMS advertising and behave similarly in the majority of the relationships between acceptance, intention and response. This similarity in findings between the two samples is contradictory to the literature on this topic. Previous research suggests that South Koreans should be more receptive to SMS advertising than Australians, as they are more familiar with the technology (Choi, Hwang, and McMillan 2008; Dholakia and Dholakia 2004; Haghirian and Madlberger 2007; Kim, Park, and Oh 2008; Kim, Heo, and Chan-Olmsted 2010; Muk 2007a). In addition, according to Rogers's (1995) Diffusion of Innovation theory, South Koreans should adopt SMS advertising more readily than Australians, as their population is more homogeneous, which is an indicator of innovation adoption. This study confirms that South Koreans are more familiar with SMS advertising, although the findings indicate that Australians and Koreans have similar levels of acceptance, intentions and responses to SMS advertising, and perceive similar relationships between the variables in this study.

The similarities in the findings for Australians and Koreans may be explained by Modernisation Theory. Modernisation Theory posits that as some collectivist countries have become more

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technologically advanced, economic values have shifted into cultural values and societies have become more individualistic (Kalogeraki 2009; Segall et al. 1990). This indicates that Korean consumers, in a modern economy, have converged towards more individualistic values and behave more like western consumers than their forefathers. This means that in the acceptance of SMS advertising, Korean consumers may rely more on their personal values and experiences rather than being influenced by social leaders (Muk 2007a). Modernisation Theory could thus explain why Australians and South Koreans have reacted similarly in their acceptance and responses to SMS advertising. This study has highlighted that consumers from Korea, who are comparatively more familiar with SMS advertising, had similar negative responses to consumers from Australia. This indicates that familiarity with SMS advertising technology does not positively affect consumers' levels of acceptance, intention to receive or responses to SMS advertising. Indeed, it seems that Korean consumers' increased exposure to the medium has had a negative impact on their views of SMS advertising. This conflicts with the findings of Muk (2007a), who found Korean consumers to be more receptive to SMS advertising than western consumers, as they are more familiar with SMS technology (Muk 2007a). The results of this study disagree, and rather reinforce the idea that consumers see SMS purely as a medium for social communication, where no amount of advertising familiarity leads to acceptance. Rather than becoming more receptive, Koreans' experiences and familiarity with SMS advertising seem to have led them to form strong opinions against it. These findings warrant further empirical investigation to more closely examine the impact of Modernisation Theory and of familiarity with a medium on the acceptance of advertising.

Concluding Comments

In this chapter, a discussion of the findings was presented in which Utility, Context and Attitudes to advertising in general were shown to be important drivers of the acceptance of SMS advertising among Australian consumers. Meanwhile, Utility, Context, Trust and Attitudes to advertising in general were found to be important drivers of acceptance among South Korean consumers. Control was not found to be an important driver of acceptance in either sample. Significant relationships were found between Acceptance and Intention, Intention and Response, and Acceptance and Response to SMS advertising in the Australian sample. In the South Korean

sample, significant relationships were found between Acceptance and Intention and Acceptance and Response, but not for Intention and Response. The findings from both samples indicate that Intention to receive was not a mediator in the relationship between Acceptance and Response. Despite differences in some constructs, it was noted that for the majority of the key variables in this study, Australian and South Korean consumers behave similarly in their acceptance, intention to receive and responses to SMS advertising.

CONCLUSION

Introduction

The primary purpose of this study was to examine consumer acceptance and response to SMS advertising in the Australian and South Korean contexts. This study applied the work of other researchers and developed a new measure for consumers' behavioural responses to SMS advertising. Chapter 1 introduced SMS advertising and proposed a need for research in this area,

which was followed by a review of the relevant mobile and SMS advertising literature in Chapter 2. Chapter 3 outlined the theoretical foundations that underpinned the study and provided a conceptual framework and hypotheses to be tested. Chapter 4 outlined the methods used to conduct the research and test the model. Next, the data collected from respondents was analysed in Chapter 5, and the findings suggested that the majority of the hypotheses were supported. Chapter 6 discussed the results of the data analysis in more detail, providing comparisons to the replicated study and the broader literature.

This concluding chapter discusses the results of this study in terms of contributions to the field of SMS advertising. First, this chapter outlines the theoretical and conceptual contributions of the findings of this research. Next, methodological contributions are discussed and the practical managerial contributions outlined. Finally, the limitations of this study and directions for future research are presented.

Research Problem

The findings from this research have answered the following research problem:

What factors influence consumers' acceptance and responses to SMS advertising? Does this differ for Australian and South Korean consumers?

Leading from this, the key objectives of this research were achieved:

1. The drivers of consumer acceptance of SMS advertising (H1a–H1f) have been determined;
2. The relationship between the acceptance of SMS advertising, intention to receive SMS advertising and behavioural response to SMS advertising (H2–H4) has been determined;
3. Whether these outcomes are different for Australian and South Korean consumers (RQ1) has been determined.

Contributions

Theoretical/Conceptual Contributions

This study provides important theoretical contributions to the field of SMS advertising, which are valuable to academic researchers of mobile advertising. This study enhances overall knowledge in the field of SMS advertising, which is still under-researched despite the growth of the medium. This study generalises and further validates those constructs developed in previous research and applies popular marketing theories to the study of SMS advertising.

Application of Previous Research

This research has helped generalise those constructs developed by other researchers by applying them in a new context. First, this study applied the Drivers of Consumer Acceptance Scale created by Merisavo et al. (2007) in Finland to measure the acceptance of SMS advertising in Australian and Korean contexts. This study showed that the Drivers of Consumer Acceptance scale is a valid and reliable measure when used at a different time and within different contexts. This was supported by the validity and reliability tests that showed the scale accurately measures the required constructs. This means that when studying consumer acceptance of SMS advertising in the future, researchers can be confident this scale is an appropriate measure. The results of this study indicate that the drivers of consumer acceptance are similar across cultures that have comparable mobile phone use and laws related to advertising. Although differences in the findings did occur, it can be said that the results obtained by Merisavo et al. (2007) are generalisable to the Australian and South Korean contexts. This study has built on the work of Merisavo et al. (2007) by adding another potential driver of consumer acceptance. The impact of attitudes to advertising in general on acceptance of SMS advertising was supported in this study, which indicates the importance of this construct for future studies in the area. This study also applied the scale used by Tsang, Ho and Liang (2004) to measure consumers' intentions to receive SMS advertising. The application of the scale in this study helps generalise it in academic research by proving it is applicable to a variety of contexts.

Application of Marketing Theories

This study has further highlighted the appropriateness of applying popular marketing theories and concepts to the study of SMS advertising. It has shown that the nature of SMS advertising and the factors that influence acceptance can be explained by the underlying theories presented in the TAM (Davis 1989) and Diffusion of Innovation theory (Rogers 1995). In particular, the impact of Utility, Context and Attitudes to Advertising on the acceptance of SMS advertising in Australia and South Korea highlights the appropriateness of the application of academic theory to cross-national SMS advertising acceptance. These theories include the Information Economic Model of Communication (Kaas 1990), the Uses and Gratification theory (Katz, Gurevitch, and Haas 1973), the concept of Conditional Value (Pura 2005), and the theory of Cognitive Dissonance (Festinger 1978). In addition, the importance of Trust on Acceptance in South Korea supports the application of Social Contract theory in this context. The majority of strong relationships between acceptance, intention and response in this study highlight the appropriateness of the application of Ajzen and Fishbein's (1980) TRA to SMS advertising research. This study has shown that this theory is particularly robust in its application to SMS advertising as well as to studies across nationalities. In explaining the similarities between Australian and South Korean consumers in the acceptance and response to SMS advertising, this study has highlighted the application of Modernisation Theory. This is a useful theoretical contribution that could pave the way for further research explaining the similarity of cultures in their adoption of technology.

Methodological Contributions

This research makes important contributions to the methodologies of future SMS advertising research. The creation of a behavioural response to SMS advertising scale is an important addition to the field, and the cross-national component of this study offers an important insight into the acceptance, intention and response to SMS advertising in a cross-national context.

Creation of the Behavioural Response to SMS Advertising Scale

This study has developed a thorough and exhaustive scale to measure consumers' behavioural responses to SMS advertising, which was previously lacking in the literature. This scale was developed by adapting items from various existing scales and identifying new items from extensive research and testing. The development of an exhaustive scale helps categorise consumers' responses to SMS advertising and contributes to the body of knowledge on the topic, providing researchers with the kinds of behavioural responses consumers may make when receiving SMS advertisements. In addition, this scale may be applied by future researchers conducting studies of this topic, thus leading to the generalisability of findings in response to SMS advertising. The creation of this scale also provides directions for future research into other forms of mobile advertising. Studies in the future may thus have a consistent tool to conduct research within a range of mobile advertising contexts.

Cross-national Applications

This study has provided useful indications to cross-national researchers on how consumers from different countries accept and respond to SMS advertising. The findings of this study have highlighted the general similarity of Australian and South Korean consumers in their acceptance of and responses to SMS advertising. This finding provides important considerations for cross-cultural academic researchers. Researchers should not take it for granted that consumers from different countries or cultural backgrounds respond differently to new forms of advertising. Traditional marketing theories such as the Diffusion of Innovation theory (Rogers 1995) may be less relevant in modern cross-national advertising research, where traditionally collective societies are making more individualistic decisions. As eastern cultures are beginning to portray more western values in consumer behaviour, the application of theories such as Modernisation Theory (Segall et al. 1990) may be more relevant to research on recent advertising media such as SMS.

Managerial Contributions

The results of this study make a number of important managerial contributions that are relevant to mobile and SMS advertising environments as well as to telecommunications providers. These results are particularly valuable to those companies operating in Australia and South Korea, but they are also useful to the broader international mobile advertising industry. This study offers useful insights into the nature of cross-national SMS advertising, which provides direction to any corporation seeking to integrate SMS into its international marketing communication strategy. The results of this study are also applicable to government authorities that create legislation and monitor anti-spam SMS advertising. The results of the hypotheses testing on each of the constructs within this study also have important managerial implications.

Drivers of Consumer Acceptance of SMS Advertising

In examining the drivers of acceptance, this study has helped uncover the factors that are important to consumers when choosing to accept or reject an SMS-based mobile advertising campaign.

Utility of SMS advertisements

It was found that perceived utility, meaning the nature of an advertising message, is a strong driver of consumer acceptance of SMS advertising. This highlights the value that consumers place on the information content, relevance and entertainment value within an advertisement. When constructing campaigns, advertisers should be careful to create messages that have a high information content that is relevant to the targeted consumer. The quality of messages sent needs to be carefully managed, and advertising agencies must work effectively with mobile operators to ensure consumer profiles are correct, up-to-date and fully utilised. This will ensure that advertising messages are correctly targeted and that they offer consumers personal value. Advertisers and marketers also need to be aware of the importance of the entertainment value of an SMS message. Based on the findings of this study, firms using the SMS advertising channel can be confident that consumers will respond favourably to creatively designed messages or interactive games. By making messages interesting, exciting, fun or curious, consumers will be more likely to accept SMS as an advertising approach.

Context of SMS Advertisements

This study has also found context to be a strong driver of Australian and Korean consumer acceptance. Context was found to be the most important driver of acceptance in South Korea and the second most important driver in Australia. This indicates that consumers place a high value on receiving messages that are relevant to them at a specific time or in a specific location. Campaigns that are time-specific and centred around significant dates or events such as Christmas are likely to enhance value for the consumer (Merisavo et al. 2007). Similarly, promotions should be sent at a relevant time of day, such as dinner vouchers in the evening. It is recommended that advertisers place more emphasis on location-based SMS advertising. For example, advertisers may consider sending messages that are relevant and highly targeted as consumers pass by a specific store. Beyond this, advertisers may find value in reaching consumers at sporting events, cinemas or encouraging them to participate in television programs. This finding provides guidance to firms deciding how to employ the SMS channel and how to reach consumers when they are most likely to act on an advertising message.

Control of SMS Advertisements

This study found that control is not an important driver of consumer acceptance of SMS advertising in Australia or South Korea. While the majority of the literature suggests that permission is a major concern, the findings of this research indicate that consumers may take it for granted that advertisements are not sent without prior consent. This finding is important for businesses looking to use SMS advertising. Such businesses can be reassured that consumers are familiar with SMS advertising and therefore should be less fearful of a consumer backlash if advertising is misdirected. This does not mean that advertisers should disobey the laws and unnecessarily irritate consumers, as it is important to build a good reputation for SMS advertising in the eyes of the consumer and regulatory authorities. Businesses should continue to follow anti-spam laws and not send unsolicited messages. It is also in the best interests of marketers to use the key strengths of SMS advertising, namely the ability to accurately target and to control exactly when they reach consumers, and to ensure they are relevant to the consumer.

Trust in Advertisers and Laws

This study found that trust is not an important determinant of consumer acceptance of SMS advertising among Australian respondents, but that it is to Korean consumers. This means that Australians may be less influenced by the possible misuse of personal information by advertisers and trust they will use their information appropriately. As indicated, this may also be because consumers feel protected by the strict anti-spam laws present in Australia. Managerially, this means advertisers can feel confident that consumers will provide correct and detailed personal information when consenting to receive advertisements. If consumers did not trust advertisers and believed that their information may be misused, they may be less willing to give correct details. This finding allows advertisers to be confident they are building an accurate profile of their targeted consumers as well as getting a significant number of participants. Advertisers should be careful to continue to abide by the laws in place and not abuse the trust placed in them by consumers. Korean consumer acceptance, by contrast, is more influenced by trust in advertisers, which may be a product of significant negative experiences and a breakdown in the laws that protect them. Advertisers in South Korea must therefore focus on building trust with subscribers by ensuring their personal information is not misused and educating recipients about the security of their information. By reducing social costs such as perceived risk and anxiety, consumers will be more likely to accept this form of advertising. In addition, lawmakers in South Korea need to be aware of the spam message problem in the mobile industry and severely punish those firms that break the law. Increased consumer protection reduces the perceived risk that consumer data may be mismanaged, which in turn increases the acceptance of SMS advertising.

Attitudes to Advertising in General

Finally, this study identifies attitudes to advertising in general as an important driver of consumer acceptance of SMS advertising in both Australia and South Korea. This means that the acceptance of SMS is highly dependent on previously formed attitudes about advertising. This finding has important considerations for businesses and advertisers using the SMS advertising channel. Advertisers need to be mindful that they will gain the greatest acceptance of an advertising campaign from those consumers who respond favourably to advertising in general. It

may be necessary to segment the audience based on previous campaign receptiveness or conduct research on which demographic or psychographic groups have the most favourable attitudes to advertising. While the grand solution would be to increase attitudes to advertising in general, advertisers must understand that this is highly unrealistic. Advertisers should instead focus on targeting those consumers who do respond favourably to advertising by conducting extensive research prior to campaign launch.

Relationship between Acceptance, Intention and Response to SMS Advertising

This study found significant links between the acceptance of SMS advertising, intention to receive SMS advertisements and behavioural responses to advertisements in both Australia and South Korea. This link was found to be weaker in South Korea, where there was no relationship between intention and response; however, both samples indicated strong direct links between acceptance and response. In both samples, the acceptance of SMS advertising was found to be low and consumers were generally unwilling to receive SMS advertisements. Following on from this negative acceptance and intention, behavioural responses were also primarily negative, with the majority of surveyed consumers indicating they would ignore, delete or not read advertising messages. This has important implications for the mobile advertising industry. SMS advertising has garnered poor consumer responses in two culturally diverse countries, suggesting that this is a significant problem for the industry. Despite SMS advertising representing significant opportunities for marketers, poor consumer response may be an indication of the lack of viability of SMS advertising as a marketing tool. While the findings of this study are not encouraging for potential SMS advertisers, they do offer an indication of how advertisers might improve the overall response to SMS advertising. The links identified in this study suggest that by improving the acceptance of SMS advertising, intention to receive SMS advertisements will improve and, in turn, responses will be more positive. If consumers are more accepting of the medium, they will begin to respond more favourably to advertisements, reading and following them up by purchasing, subscribing or forwarding to friends.

Consumer acceptance of SMS advertising can be improved in a variety of ways. Firstly, advertisers must be aware of those issues that this study has identified as being important in determining acceptance. When designing campaigns, advertisers should focus on the nature of the message, the context within which it is delivered, consumers' previous attitudes to advertising and trust issues in the specific country. To build the long-term acceptance of SMS advertising, marketers must create strong enduring relationships with subscribers. This could initially mean using the SMS channel not simply as an advertising platform but as a communication platform involving appointment reminders, news, receipts, answers to questions and other two-way forms of interaction. These communication techniques can be used to create an ongoing relationship with the consumer and improve the chances of a consumer accepting SMS advertising in the future. In the short-term, poor levels of acceptance can be improved by encouraging consumers to want to participate in SMS advertising. This can occur by offering consumers incentives to receive more SMS advertisements in the form of extra credit or data allowance from a service provider. The links identified in this study suggest that by managing and improving the acceptance of SMS advertising, advertisers can improve the behavioural response to it.

Cross-national implications

This study identifies that Australian and South Korean consumers are generally similar in their acceptance, intentions to receive and responses to SMS advertising. Consumers from both countries are influenced by message- and context-related factors as well as previous attitudes to advertising; however, they are unaffected by control over advertisements. This finding has some important managerial implications for the international mobile advertising industry. Rather than focus on segmenting markets culturally or nationally, international marketers should instead focus on segmenting consumers based on their individual needs and preferences. When designing SMS campaigns, marketers should focus on the same kinds of factors for consumers in both countries, ensuring the message offers value and is relevant and contextually valid.

Some differences between nationalities were also identified in this study. Advertisers operating in Australia and South Korea must be aware of these differences and tailor their campaigns accordingly. In South Korea, advertisers need to be aware of the importance of trust. This means focusing on building trusting relationships with consumers in order to reassure recipients that their personal information is being used appropriately. In addition, South Koreans' willingness to receive SMS advertisements does not necessarily translate into a behavioural response. This indicates that a relevant and valuable message may result in a favourable response even if consumers do not intend to receive them. Advertisers in South Korea should thus place extra focus on delivering messages that offer immediate value to consumers, such as relevant coupons or vouchers. By offering immediate value, consumers are encouraged to respond quickly.

Limitations and Future Research Directions

This study contributes significantly to the field of SMS advertising, although there are a number of limitations associated with it in terms of design and the generalisability of results. Taking into account these limitations, the importance of these findings to the field of SMS advertising research outweighs the restrictions of the study.

Research Methodology

Some limitations exist with the chosen research methodology. A quantitative research approach has been used in this study, and although this is most appropriate, it has some limitations and can lead to possible errors. Self-selection bias may occur in studies of this nature, as respondents complete the questionnaire by their own choice. This could imply that those who have strong opinions on SMS advertising may be more likely to respond than those who are indifferent (Zikmund 2003), leading to sample bias. In addition, a survey design that relies on self-reporting instead of a consumer's actual behaviour is a drawback. An experimental examination of the variables would generate more confidence in the results, which is particularly relevant to the behavioural response to SMS advertising scale.

The small convenience sample in this study (203 in Australia and 207 in South Korea) means a complete and accurate representation of the population cannot occur. Although there was a small sample size for this study, it exceeds the requirements for a student-level thesis, which should be between 50 and 100 (Perry 1998). In addition, the sample selection within this study was limited to primarily students between the ages of 18 and 45. The constructs identified to be important drivers of consumer acceptance in this study may not be applicable to an older generation or to other adolescent consumers that are less familiar with mobile technology (Grant and O'Donohoe 2007) and less exposed to mobile advertising (Leung 2007). The survey instruments used within this study have only used 7 point likert scales. This was done to achieve a consistent measure across both national contexts and different scales. Because of this, there is the potential for common method bias.

The time horizon of this research also presents a limitation. The time horizon for data collection was a cross-sectional approach, which occurred in a single fixed period (Sekeran 2003). While this method was most convenient, it only gathers information at a particular point in time. This means the study does not account for changes in consumer acceptance and response to SMS advertising over time and does not measure the effect of different time periods on these variables.

These limitations in the research methodology of this study present opportunities for future research, which should test the same constructs used in this study by employing a range of research techniques. A qualitative research method could be used, which would be useful for exploring the constructs in this study in more detail and gaining a different view of consumer responses. A larger sample size that tested a greater number of respondents would also be useful for generalising the results of this study, as would testing a sample made up of older or younger respondents. A longitudinal approach to data collection could also be used to gauge changing levels of acceptance and responses over time. An experimental examination of the variables within this study, particularly responses to SMS advertisements, would be of great benefit to validate the findings of this study. Future research should take an observational approach to

record actual consumer behaviour when receiving SMS advertisements. Further rigorous testing of the Acceptance and Behavioural Response scale is also necessary. This could be carried out using different analysis techniques such as Structured Equation Modelling or testing the scale in a range of contexts.

Cross-national Application

A key limitation of this study relates to cross-national comparisons. This study was based on Australian and South Korean consumers and as such it may not be directly applicable to consumers in other countries. Although it obtained similar findings for Australia and South Korea, these two cultures were found to have similar laws relating to SMS advertising. The results may differ significantly in cultures where the use of SMS advertising is different or in which the laws relating to unsolicited messages are diverse. This limitation presents an opportunity for future research. It is necessary to test consumer acceptance and responses to SMS advertising in other cultures, particularly those that have less stringent laws relating to unsolicited advertising messages and the possible misuse of personal data. This would allow researchers to further study the impact of control and trust in advertisers and laws on the acceptance of SMS advertising. Furthermore, this research has studied the national impact between Australia and South Korea, two contrasting cultures. It would thus be interesting to test the differences between countries with similar cultures, such as Australia and the UK or South Korea and Japan.

SMS Advertising

This research focused on only one type of mobile advertising, SMS, and therefore the findings are somewhat limited to this field. Researchers could apply the constructs of this study to test acceptance and response to other forms of mobile advertising, such as MMS, Bluetooth or mobile internet, where less research has been conducted compared with SMS. In particular, there is a need to further analyse the relationship between attitudes to advertising in general and SMS advertising. This study found it to be a significant driver of consumer acceptance, although this

finding should be tested further to establish its validity. It would be interesting for future studies to test the impact of attitudes to advertising on the other forms of mobile advertising.

The constructs in this study were applied to SMS advertising in general, and the different types of SMS advertisements were not accounted for in this research. This represents a limitation, as it is likely that different types of SMS advertisements, such as service-based announcements, coupons and competition entries, affect a consumer's acceptance and response in different ways. In future research, it would be valuable to analyse the different types of SMS advertisements that consumers receive and the impact of these on acceptance and response. For example, would service-based advertisements result in a higher acceptance compared with product-based advertisements, and would consumers respond to coupons more favourably than to competition-based campaigns?

Concluding Comments

As an emerging area within the advertising discipline, there is a critical need for current research into the acceptance of and response to SMS advertising. This study has added to the field of SMS advertising research and contributed to bridging the knowledge gap between academic research and industry in Australia and South Korea. The findings of this research indicate that Attitudes to Advertising, Utility and Context are key drivers in the acceptance of SMS advertising in both nations and that trust is a driver of acceptance only in South Korea. Significant relationships were also found between acceptance and intention, acceptance and response and intention and response in Australia, and between acceptance and intention as well as between acceptance and response in South Korea. Intention was not found to be a mediator between acceptance and response in either nation.

These findings have important implications for both marketing practitioners and researchers. Theoretically, this study supports the generalisation of pre-existing scales in a new context and the application of key existing marketing theories, while suggesting the application of new cross-

cultural theories to SMS advertising. This study has contributed methodologically by developing a scale to measure consumer responses to SMS advertising as well as conducting a cross-national study of SMS advertising. Managerially, the findings of this study suggest that advertising messages must be constructed carefully, containing information that is useful, contextually relevant and correctly targeted. In addition, marketers should focus on building relationships with customers and offer incentives to accept SMS advertising in order to improve negative behavioural responses. The similarity between Australian and Korean consumers also means that advertisers should segment markets based on individual preferences rather than on nationality.

The limitations and future directions of this study were also discussed. The potential shortcomings of this research include aspects of the research methodology, cross-national applications and the narrow field of SMS advertising. Recommendations for future research include different research techniques and the broadening of the sample, further cross-national studies and application to other forms of mobile advertising.

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APPENDICES

Appendix A: Australian Questionnaire

Short Message Service (SMS) Advertising Survey

We are surveying people about their attitudes towards SMS advertising. Your help in completing this questionnaire is much appreciated. Please be assured that all your responses are confidential and will not be linked to you in any way.

1	Do you have access to a mobile phone?	
(a) Yes (b) No		
2	**Have you used SMS before?**	
(a) Yes (b) No (Please proceed to **Section C if answer is NO**)		
3	**How many SMS messages do you send within a week?**	
(a) Less than 2 messages	(b) 2 -5 messages	(c) 6 - 9 messages
(d) 10-15 messages	(e) 15-20 messages	(f) 20 or more messages
4	**Have you received SMS advertising messages in the past?**	
(a) Yes (b) No (Please proceed to **Section C if answer is NO**)(c) Don't remember		
5	**What do you do when you receive these SMS advertising messages?**	
(a) Delete immediately	(b) Read entire message and then delete	
(c) Read part of message and then delete	(d) Read and keep for future referral	
(e) Ignore completely	(f) Read and forward to friends	
(g) Read and reply/follow up by SMS	(h) Read and follow up via other media (internet)	
(i) Read and purchase/subscribe		

6	How many SMS advertisements are you willing to receive?
(a) Less than one message per day	(b) Two messages per day
(c) Three messages per day	(d) Over four messages per day

A — **The following questions examine your acceptance of advertising in general.**

(Please circle one number for each statement)

		Strongly disagree						Strongly agree
1	I think that advertising is interesting	1	2	3	4	5	6	7
2	I think that advertising is enjoyable	1	2	3	4	5	6	7
3	I think that advertising is informative	1	2	3	4	5	6	7
4	I think that advertising is believable	1	2	3	4	5	6	7

B — **The following questions relate to your views on SMS advertising.**

(Please circle one number for each statement)

		Strongly disagree						Strongly agree
1	I think that SMS advertising saves me money	1	2	3	4	5	6	7
2	I think SMS advertising saves me time	1	2	3	4	5	6	7
3	I think that useful information is important in SMS advertising	1	2	3	4	5	6	7
4	I think that an entertaining experience is important in SMS advertising	1	2	3	4	5	6	7
5	I would view SMS advertising related to me being in a specific location (e.g. stores, restaurants) as useful	1	2	3	4	5	6	7
6	I would view SMS advertising related to a specific time or date (e.g. anniversary) as useful	1	2	3	4	5	6	7
7	I would be prepared to spend time providing my personal details to make SMS advertising better match my needs	1	2	3	4	5	6	7

8	I would only be prepared to receive SMS advertising if I had provided my permission	1	2	3	4	5	6	7
9	It is important for me that I can control the permission to receive SMS advertising	1	2	3	4	5	6	7
10	It is important for me that I can refuse to receive SMS advertising	1	2	3	4	5	6	7
11	It is important for me that I can filter SMS advertising to match my needs	1	2	3	4	5	6	7
12	The biggest problem related to receiving SMS advertising is loss of control	1	2	3	4	5	6	7
13	The biggest problem related to receiving SMS advertising is loss of privacy	1	2	3	4	5	6	7
14	The biggest problem related to receiving SMS advertising is the time involved in dealing with it.	1	2	3	4	5	6	7
15	The biggest problem related to receiving SMS advertising is that I feel it is annoying or irritating	1	2	3	4	5	6	7
16	The biggest problem related to receiving SMS advertising is that it blurs the distinction between home, work, and leisure	1	2	3	4	5	6	7
17	I believe that my mobile operator uses my data only for a purpose that I have approved	1	2	3	4	5	6	7
18	I believe that an advertiser would use my data only for a purpose that I have approved	1	2	3	4	5	6	7
19	I believe that the consumer is protected by laws related to data privacy	1	2	3	4	5	6	7
20	Overall, I feel positively about SMS advertising	1	2	3	4	5	6	7
21	I am willing to receive SMS advertising messages in the future	1	2	3	4	5	6	7
22	I would read all the SMS advertising messages I receive in the future	1	2	3	4	5	6	7

C — **Your Profile. Please tick your response in the appropriate brackets.**

1. Your Gender	2. Age Group	3. Annual Income	4. Education
Male [ ] Female [ ]	Under 18 [ ] 18 – 24 [ ] 25 – 34 [ ]	Under $15000 [ ] $15,001-$29,999 [ ] $30,000-$44,999 [ ]	Undergraduate Degree [ ] Postgraduate Degree [ ] High School [ ]

| 35 – 44 | [   ] | $45,000-$59,999 | [   ] | Other[   ] |
| 45 and over | [   ] | $60,000-over | [   ] | |

Thanks for your time. This survey is confidential and your answers cannot be linked to you.

Appendix B: South Korean Questionnaire

<u>문 자 광 고 설 문 조 사</u>

1	**휴대폰을 사용하십니까?**	
(a) 네 (b) 아니오		
2	**문자를 쓰신 적이 있으십니까?**	
(a) 네 (b) 아니오 (아니오라고 대답하셨다면, Section C로 넘어가주시기 바랍니다.)		
3	**일주일동안 몇개의 문자를 보내십니까?**	
(a) 두개 이하	(b) 2 - 5개	(c) 6 - 9 개
(d) 10-15개	(e) 15-20개	(f) 20개 이상
4	**과거에 문자 광고를 받으신 적이 있으십니까?**	
(a) 네 (b) 아니오 (아니오라고 대답하셨다면, Section C로 넘어가주시기 바랍니다.) (c) 기억나지 않는다.		
5	**문자광고를 받으신 후에 어떻게 대응하십니까?**	
(a) 바로 지워버린다.		(b) 다 읽은 후에 지운다.
(c) 일부만 확인한 후 지워버린다.		(d) 읽은 후 나중을 위해 저장한다.
(e) 무시해버린다.		(f) 읽은 후 친구들에게 보낸다.
(g)읽은 후 문자로 더 알아본다.		(h) 읽은 후 다른 매체로 더 알아본다. (인터넷)
(i) 읽은 후 구매한다.		
6	**하루에 얼마나 많은 문자 광고를 받으실 의지가 있습니까?**	
(a) 하루에 한개 이하		(b) 하루에 두개
(c) 하루에 세개		(d) 하루에 네개 이상

A	다음 질문들은 광고에 대한 일반적인 반응에 관한 것입니다. (각 질문에 찬성정도에 따라 숫자 하나를 선택해 주시길 바랍니다.)							
		확고히 반대한다. 확고히 찬성한다.						
1	광고는 흥미롭다고 생각한다.	1	2	3	4	5	6	7
2	광고는 재미있다고 생각한다.	1	2	3	4	5	6	7
3	광고는 정보에 유용하다고 생각한다.	1	2	3	4	5	6	7
4	광고는 믿을만 하다고 생각한다.	1	2	3	4	5	6	7

B	다음 질문들은 문자 광고에 대한 의견에 관한 것입니다. (각 질문에 찬성정도에 따라 숫자 하나를 선택해 주시길 바랍니다.)							
		확고히 반대한다. 확고히 찬성한다.						
1	문자광고는 돈 절약에 유용하다고 생각한다.	1	2	3	4	5	6	7
2	문자광고는 시간 절약에 유용하다고 생각한다.	1	2	3	4	5	6	7
3	문자 광고에 유용한 정보가 중요하다고 생각한다.	1	2	3	4	5	6	7
4	문자 광고에 여흥이 중요하다고 생각한다.	1	2	3	4	5	6	7
5	특정한 장소(예. 식당, 영화)에 유용한 문자 광고를 확인할 것이다.	1	2	3	4	5	6	7
6	특정한 시간(예. 기념일)에 유용한 문자 광고를 확인할 것이다.	1	2	3	4	5	6	7
7	내 필요에 맞는 문자 광고를 받기위해 내 개인 정보를 제공할 의지가 있다.	1	2	3	4	5	6	7
8	내가 승인한 문자 광고만 받고 싶다.	1	2	3	4	5	6	7
9	나에겐 문자 광고 승인 통제 가능 여부가 중요하다.	1	2	3	4	5	6	7

10	나에겐 문자 광고 거부 가능 여부가 중요하다.	1	2	3	4	5	6	7
11	나에겐 문자 광고를 내 필요에 맞게 걸러서 받을 수 있는 여부가 중요하다.	1	2	3	4	5	6	7
12	문자 광고는 통제 불가능이 가장 큰 문제이다.	1	2	3	4	5	6	7
13	문자 광고는 사생활 침해가 가장 큰 문제이다.	1	2	3	4	5	6	7
14	문자 광고는 처리하는 시간이 가장 큰 문제이다.	1	2	3	4	5	6	7
15	문자 광고는 귀찮고 거슬리는 것이 가장 큰 문제이다.	1	2	3	4	5	6	7
16	문자 광고는 직장, 집, 여가의 차이를 흐릿하게 하는 것이 가장 큰 문제이다.	1	2	3	4	5	6	7
17	나는 휴대폰 통신회사에서 내 개인 정보가 허락받은 용도에만 쓰인다고 믿는다.	1	2	3	4	5	6	7
18	나는 광고회사에서 내 개인 정보가 허락받은 용도에만 쓰인다고 믿는다.	1	2	3	4	5	6	7
19	나는 소비자들이 개인 정보에 관해 법적으로 보호받는다고 믿는다.	1	2	3	4	5	6	7
20	전체적으로 문자 광고를 긍정적으로 본다.	1	2	3	4	5	6	7
21	앞으로 문자 광고를 계속해서 받을 의향이 있다.	1	2	3	4	5	6	7
22	앞으로 받는 문자 광고를 다 확인할 의향이 있다.	1	2	3	4	5	6	7

C 프로필. 알맞는 괄호에 체크하시길 바랍니다.

1. 성별	2.연령대	3. 월급	4. 학력
남 [ ] 여 [ ]	Under 이하 [ ] 18 – 24 [ ] 25 – 34 [ ] 25 – 34 [ ] 45 이상 [ ]	100만원 이하 [ ] 100 - 150만원 [ ] 150 - 200만원[ ] 200 - 250만원[ ] 250만원이상[ ]	대학원 [ ] 대학교 [ ] 고등학교 [ ] 기타 [ ]

Appendix C: Pretest Questionnaire

SMS Advertising Exercise

Have you received SMS advertising on you mobile phone?

_____

What type of SMS advertising have you received? State as many as you can remember

_____
_____
_____
_____
_____
_____
_____

What do you do with these SMS advertising messages? State all your responses to this form of advertising.

_____
_____
_____
_____
_____
_____
_____
_____

Appendix D: Australian Questionnaire Cover Page

An Exploratory Study of Consumers' Acceptance of SMS Advertising

My name is Kyle Jamieson, I am a Masters student studying in the School of Marketing, Curtin University of Technology, Perth, Australia. I am completing a thesis as partial fulfillment of my Master of Philosophy (Marketing). The purpose of this study is to assess consumer attitudes and acceptance of Short Message Service (SMS) advertising.

This survey instrument has been cleared by Ethics Committee, in line with the University's policy on research with low risk involving human participants. The attached survey questionnaire will take approximately 5 minutes of your time. All information will be kept confidential. You can withdraw from participation at any time without prejudice. If you have any questions regarding this survey, please contact the undersigned. You may also contact the University Ethics Committee on 9266 2784 or by email hrec@curtin.edu.au.

Thank you for your participation.

Researcher: Kyle Jamieson,

kyle.jamieson@student.curtin.edu.au

Supervisors: Professor Ian Phau

Ian.Phau@cbs.curtin.edu.au

Dr Steve Dix

Steve.Dix@cbs.curtin.edu.au

Appendix E: South Korean Questionnaire Cover Page

소비자들의 문자 광고 승인 여부에 관한 탐구 조사

제 이름은 카일 제머슨 이고, 서부 호주 퍼스에 있는 커틴 대학교에서 마케팅 석사 과정을 공부 하고 있습니다. 그 마케팅 철학 석사를 따기 위한 과정의 일부로 논문을 쓰고 있습니다. 제 조사의 목적은 문자 광고에 대한 소비자들의 태도와 승인 여부를 알고자 함입니다.

이 설문 조사는 이미 도덕 윤리 위원회의 허가를 받았으며, 대학교 인간 연구 방침에 따라 만들어졌습니다.첨부된 설문지를 완성하는 데에 5분 가량이 걸릴겄입니다. 모든 정보는 비밀로 처리될 것이며, 원하신다면 언제든 그만 두실 수 있습니다.설문에 관해 질문이 있으시다면 밑에 개제된 연락처로

저에게 연락을 주시기 바랍니다. 커틴 대학교 도덕 위원회 전화번호는 +61 8 9266 2784 이며 이메일 주소는

hrec@curtin.edu.au 입니다.

도와주셔서 감사합니다.

학생: Kyle Jamieson,

           kyle.jamieson@student.curtin.edu.au

지도교수: Professor Ian Phau

                   Ian.Phau@cbs.curtin.edu.au

                   Dr Steve Dix

                   Steve.Dix@cbs.curtin.edu.au

Appendix F: Ethics Clearance Form

(1) Project meets ethical requirements and is granted approval

From: *August 2 to: December 2009*

OR

(2) Project requires amendment, to be resubmitted to reviewer for approval) .... ☐
(attach list of amendments)
Summary of amendments required:

Approved subject to:

Please make sure Supervisor also signs in the appropriate location on this application.

Please not comments on the research questionnaire itself.

OR

(3) Applicant instructed to submit an Application Form A to the HREC for approval .... ☐

Name of reviewer
(Block Letters) *Dr David Wong*

Signature: *[signature]* **Date:** *7/9/09*

Checklist

1. Completed the attached Form C Checklist for Reviewers .... ☐
2. Details added to the Ethics Form C Database .... ☐
3. Letter sent to Applicant .... ☐

Appendix G

Correlation - Australia

		Advertising is interesting	Advertising is Enjoyable	Advertising is Informative	Advertising is Beleivable	Saves me money	Saves me time	View in specific location	View at specific time	Provided permission to receive
Advertising is interesting	Pearson Correlation	1	.903**	.617**	.620**	.338**	.420**	.352**	.386**	.111
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.132
	N	187	187	187	187	187	187	187	187	187
Advertising is Enjoyable	Pearson Correlation	.903**	1	.636**	.597**	.239**	.326**	.320**	.352**	.114
	Sig. (2-tailed)	.000		.000	.000	.001	.000	.000	.000	.122
	N	187	187	187	187	187	187	187	187	187
Advertising is Informative	Pearson Correlation	.617**	.636**	1	.689**	.184*	.338**	.379**	.392**	.102
	Sig. (2-tailed)	.000	.000		.000	.012	.000	.000	.000	.165
	N	187	187	187	187	187	187	187	187	187
Advertising is Beleivable	Pearson Correlation	.620**	.597**	.689**	1	.287**	.412**	.393**	.333**	-.041
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.578
	N	187	187	187	187	187	187	187	187	187
Saves me money	Pearson Correlation	.338**	.239**	.184*	.287**	1	.771**	.193**	.237**	-.178*
	Sig. (2-tailed)	.000	.001	.012	.000		.000	.008	.001	.015
	N	187	187	187	187	187	187	187	187	187
Saves me time	Pearson Correlation	.420**	.326**	.338**	.412**	.771**	1	.300**	.397**	-.089
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.227
	N	187	187	187	187	187	187	187	187	187
View in specific location	Pearson Correlation	.352**	.320**	.379**	.393**	.193**	.300**	1	.754**	-.052
	Sig. (2-tailed)	.000	.000	.000	.000	.008	.000		.000	.480
	N	187	187	187	187	187	187	187	187	187
View at specific time	Pearson Correlation	.386**	.352**	.392**	.333**	.237**	.397**	.754**	1	.065
	Sig. (2-tailed)	.000	.000	.000	.000	.001	.000	.000		.380
	N	187	187	187	187	187	187	187	187	187
Provided permission to receive	Pearson Correlation	.111	.114	.102	-.041	-.178*	-.089	-.052	.065	1
	Sig. (2-tailed)	.132	.122	.165	.578	.015	.227	.480	.380	
	N	187	187	187	187	187	187	187	187	187
Control permission to receive	Pearson Correlation	.027	.054	.093	-.082	-.217**	-.073	.041	.131	.528**
	Sig. (2-tailed)	.713	.463	.203	.267	.003	.322	.575	.073	.000
	N	187	187	187	187	187	187	187	187	187
Refuse to receive ads	Pearson Correlation	.003	.012	.106	-.014	-.324**	-.172*	.009	.065	.410**
	Sig. (2-tailed)	.965	.876	.147	.854	.000	.018	.898	.380	.000
	N	187	187	187	187	187	187	187	187	187
Filter to match my needs	Pearson Correlation	.019	.054	.081	-.033	-.100	.079	.151*	.197**	.353**

	Sig. (2-tailed)	.801	.460	.269	.652	.172	.284	.039	.007	.000
	N	187	187	187	187	187	187	187	187	187
Mobile operator uses data	Pearson Correlation	.124	.165*	.216**	.120	.049	.216**	-.078	-.010	.186*
	Sig. (2-tailed)	.092	.024	.003	.102	.502	.003	.291	.892	.011
	N	187	187	187	187	187	187	187	187	187
Advertiser uses data	Pearson Correlation	.108	.134	.241**	.138	.205**	.286**	.075	.089	.109
	Sig. (2-tailed)	.142	.068	.001	.060	.005	.000	.306	.223	.139
	N	187	187	187	187	187	187	187	187	187
Feel positive about SMS ad	Pearson Correlation	.547**	.505**	.492**	.446**	.374**	.529**	.417**	.463**	-.097
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.187
	N	187	187	187	187	187	187	187	187	187
Willing to receive SMS ads future	Pearson Correlation	.481**	.443**	.477**	.494**	.321**	.510**	.474**	.455**	-.064
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.384
	N	187	187	187	187	187	187	187	187	187
Read all SMS ads future	Pearson Correlation	.327**	.285**	.452**	.420**	.270**	.374**	.333**	.283**	-.022
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.767
	N	187	187	187	187	187	187	187	187	187

Control permission to receive	Refuse to receive ads	Filter to match my needs	Mobile operator uses data	Advertiser uses data	Feel positive about SMS ad	Willing to receive SMS ads future	Read all SMS ads future
.027	.003	.019	.124	.108	.547**	.481**	.327**
.713	.965	.801	.092	.142	.000	.000	.000
187	187	187	187	187	187	187	187
.054	.012	.054	.165*	.134	.505**	.443**	.285**
.463	.876	.460	.024	.068	.000	.000	.000
187	187	187	187	187	187	187	187
.093	.106	.081	.216**	.241**	.492**	.477**	.452**
.203	.147	.269	.003	.001	.000	.000	.000
187	187	187	187	187	187	187	187
-.082	-.014	-.033	.120	.138	.446**	.494**	.420**
.267	.854	.652	.102	.060	.000	.000	.000
187	187	187	187	187	187	187	187
-.217**	-.324**	-.100	.049	.205**	.374**	.321**	.270**
.003	.000	.172	.502	.005	.000	.000	.000
187	187	187	187	187	187	187	187
-.073	-.172*	.079	.216**	.286**	.529**	.510**	.374**
.322	.018	.284	.003	.000	.000	.000	.000
187	187	187	187	187	187	187	187
.041	.009	.151*	-.078	.075	.417**	.474**	.333**
.575	.898	.039	.291	.306	.000	.000	.000
187	187	187	187	187	187	187	187
.131	.065	.197**	-.010	.089	.463**	.455**	.283**
.073	.380	.007	.892	.223	.000	.000	.000
187	187	187	187	187	187	187	187
.528**	.410**	.353**	.186*	.109	-.097	-.064	-.022
.000	.000	.000	.011	.139	.187	.384	.767
187	187	187	187	187	187	187	187
1	.664**	.644**	.138	.220**	-.149*	-.115	-.110
	.000	.000	.060	.002	.042	.117	.132

187	187	187	187	187	187	187	187
.664**	1	.606**	.081	.117	-.110	-.108	-.189**
.000		.000	.269	.110	.133	.141	.009
187	187	187	187	187	187	187	187
.644**	.606**	1	.192**	.224**	-.027	.013	-.061
.000	.000		.009	.002	.716	.860	.407
187	187	187	187	187	187	187	187
.138	.081	.192**	1	.690**	.061	-.033	.016
.060	.269	.009		.000	.410	.653	.826
187	187	187	187	187	187	187	187
.220**	.117	.224**	.690**	1	.148*	.095	.104
.002	.110	.002	.000		.043	.198	.157
187	187	187	187	187	187	187	187
-.149*	-.110	-.027	.061	.148*	1	.811**	.641**
.042	.133	.716	.410	.043		.000	.000
187	187	187	187	187	187	187	187
-.115	-.108	.013	-.033	.095	.811**	1	.744**
.117	.141	.860	.653	.198	.000		.000
187	187	187	187	187	187	187	187
-.110	-.189**	-.061	.016	.104	.641**	.744**	1
.132	.009	.407	.826	.157	.000	.000	
187	187	187	187	187	187	187	187

Appendix H

Correlation – Korea

		advertising is interesting	advertising is enjoyable	advertising is informative	advertising is believable	saves me money	saves me time	view in specific location	view at specific time	provide permission to receive
advertising is interesting	Pearson Correlation	1	.857**	.691**	.500**	.052	.062	.222**	.177*	.227**
	Sig. (2-tailed)		.000	.000	.000	.453	.377	.001	.011	.001
	N	207	207	207	207	207	207	207	207	207
advertising is enjoyable	Pearson Correlation	.857**	1	.722**	.565**	.122	.068	.204**	.203**	.155*
	Sig. (2-tailed)	.000		.000	.000	.081	.327	.003	.003	.026
	N	207	207	207	207	207	207	207	207	207
advertising is informative	Pearson Correlation	.691**	.722**	1	.693**	.148*	.090	.274**	.291**	.258**
	Sig. (2-tailed)	.000	.000		.000	.033	.195	.000	.000	.000
	N	207	207	207	207	207	207	207	207	207
advertising is believable	Pearson Correlation	.500**	.565**	.693**	1	.359**	.247**	.393**	.365**	.132
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.057
	N	207	207	207	207	207	207	207	207	207
saves me money	Pearson Correlation	.052	.122	.148*	.359**	1	.842**	.378**	.387**	.238**
	Sig. (2-tailed)	.453	.081	.033	.000		.000	.000	.000	.001
	N	207	207	207	207	207	207	207	207	207

saves me time	Pearson Correlation	.062	.068	.090	.247**	.842**	1	.478**	.525**	.281**
	Sig. (2-tailed)	.377	.327	.195	.000	.000		.000	.000	.000
	N	207	207	207	207	207	207	207	207	207
view in specific location	Pearson Correlation	.222**	.204**	.274**	.393**	.378**	.478**	1	.845**	.253**
	Sig. (2-tailed)	.001	.003	.000	.000	.000	.000		.000	.000
	N	207	207	207	207	207	207	207	207	207
view at specific time	Pearson Correlation	.177*	.203**	.291**	.365**	.387**	.525**	.845**	1	.250**
	Sig. (2-tailed)	.011	.003	.000	.000	.000	.000	.000		.000
	N	207	207	207	207	207	207	207	207	207
provide permission to receive	Pearson Correlation	.227**	.155*	.258**	.132	.238**	.281**	.253**	.250**	1
	Sig. (2-tailed)	.001	.026	.000	.057	.001	.000	.000	.000	
	N	207	207	207	207	207	207	207	207	207
control permission to receive	Pearson Correlation	.195**	.099	.175*	.236**	.284**	.332**	.256**	.358**	.474**
	Sig. (2-tailed)	.005	.156	.012	.001	.000	.000	.000	.000	.000
	N	207	207	207	207	207	207	207	207	207
refuse to receive	Pearson Correlation	.123	.095	.149*	.117	.176*	.222**	-.002	.113	.386**
	Sig. (2-tailed)	.078	.172	.032	.092	.011	.001	.976	.105	.000
	N	207	207	207	207	207	207	207	207	207
filter to match my needs	Pearson Correlation	.170*	.117	.204**	.137*	.221**	.281**	.161*	.277**	.448**
	Sig. (2-tailed)	.014	.092	.003	.049	.001	.000	.020	.000	.000
	N	207	207	207	207	207	207	207	207	207
mobile operator uses data	Pearson Correlation	-.012	-.029	.022	.192**	.008	-.015	.200**	.196**	-.106
	Sig. (2-tailed)	.866	.680	.755	.006	.904	.832	.004	.005	.127
	N	207	207	207	207	207	207	207	207	207
advertiser uses data	Pearson Correlation	.000	.040	.020	.202**	-.006	.066	.201**	.240**	-.126
	Sig. (2-tailed)	1.000	.565	.770	.003	.934	.345	.004	.000	.071
	N	207	207	207	207	207	207	207	207	207
feel positive about sms ads	Pearson Correlation	.229**	.198**	.200**	.355**	.387**	.467**	.634**	.548**	.086
	Sig. (2-tailed)	.001	.004	.004	.000	.000	.000	.000	.000	.219
	N	207	207	207	207	207	207	207	207	207
willing to receive in future	Pearson Correlation	.246**	.164*	.243**	.301**	.341**	.381**	.561**	.510**	.245**
	Sig. (2-tailed)	.000	.018	.000	.000	.000	.000	.000	.000	.000
	N	207	207	207	207	207	207	207	207	207
read all ads in future	Pearson Correlation	.373**	.245**	.230**	.238**	.371**	.417**	.450**	.433**	.275**
	Sig. (2-tailed)	.000	.000	.001	.001	.000	.000	.000	.000	.000
	N	207	207	207	207	207	207	207	207	207

control permission to receive	refuse to receive	filter to match my needs	mobile operator uses data	advertiser uses data	feel positive about sms ads	willing to receive in future	read all ads in future
.195**	.123	.170*	-.012	.000	.229**	.246**	.373**
.005	.078	.014	.866	1.000	.001	.000	.000
207	207	207	207	207	207	207	207
.099	.095	.117	-.029	.040	.198**	.164*	.245**
.156	.172	.092	.680	.565	.004	.018	.000
207	207	207	207	207	207	207	207
.175*	.149*	.204**	.022	.020	.200**	.243**	.230**
.012	.032	.003	.755	.770	.004	.000	.001
207	207	207	207	207	207	207	207
.236**	.117	.137*	.192**	.202**	.355**	.301**	.238**
.001	.092	.049	.006	.003	.000	.000	.001
207	207	207	207	207	207	207	207
.284**	.176*	.221**	.008	-.006	.387**	.341**	.371**
.000	.011	.001	.904	.934	.000	.000	.000
207	207	207	207	207	207	207	207
.332**	.222**	.281**	-.015	.066	.467**	.381**	.417**
.000	.001	.000	.832	.345	.000	.000	.000
207	207	207	207	207	207	207	207
.256**	-.002	.161*	.200**	.201**	.634**	.561**	.450**
.000	.976	.020	.004	.004	.000	.000	.000
207	207	207	207	207	207	207	207
.358**	.113	.277**	.196**	.240**	.548**	.510**	.433**
.000	.105	.000	.005	.000	.000	.000	.000
207	207	207	207	207	207	207	207
.474**	.386**	.448**	-.106	-.126	.086	.245**	.275**
.000	.000	.000	.127	.071	.219	.000	.000
207	207	207	207	207	207	207	207
1	.687**	.707**	.113	.088	.061	.259**	.296**
	.000	.000	.106	.208	.381	.000	.000
207	207	207	207	207	207	207	207
.687**	1	.714**	-.018	-.066	-.088	.113	.104
.000		.000	.801	.344	.205	.106	.134
207	207	207	207	207	207	207	207
.707**	.714**	1	.002	-.025	-.014	.222**	.229**
.000	.000		.981	.723	.836	.001	.001
207	207	207	207	207	207	207	207
.113	-.018	.002	1	.884**	.418**	.456**	.231**
.106	.801	.981		.000	.000	.000	.001
207	207	207	207	207	207	207	207
.088	-.066	-.025	.884**	1	.438**	.417**	.198**
.208	.344	.723	.000		.000	.000	.004
207	207	207	207	207	207	207	207
.061	-.088	-.014	.418**	.438**	1	.779**	.597**
.381	.205	.836	.000	.000		.000	.000
207	207	207	207	207	207	207	207
.259**	.113	.222**	.456**	.417**	.779**	1	.625**
.000	.106	.001	.000	.000	.000		.000
207	207	207	207	207	207	207	207
.296**	.104	.229**	.231**	.198**	.597**	.625**	1
.000	.134	.001	.001	.004	.000	.000	
207	207	207	207	207	207	207	207