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AN EVALUATION OF CONSUMER INTENTION TO PARTICIPATE IN MOBILE ADVERTISING AND AN EMPIRICAL STUDY CONDUCTED IN ISTANBUL

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AN EVALUATION OF CONSUMER INTENTION TO PARTICIPATE IN MOBILE ADVERTISING AND AN EMPIRICAL STUDY CONDUCTED IN ISTANBUL

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Abstract

Mobile services provide companies with a strong marketing potential, because mobile technologies enable brands to have a direct communication with consumers, regardless of time and place. Therefore, mobile marketing brings about a variety of opportunities for marketers. New digital marketing channels like Internet and mobile telephony lead to interactive and personalized content and context in marketing messages so, considering marketing communications, these channels offer a unique opportunity to reach consumers. High market penetration of mobile phones and the emergence of high speed mobile network technologies have attracted advertising industry and using of mobile medium as a marketing communication tool has been increasing. Marketing communications were highly influenced by recent developments in technology and the gradual transformation from mass marketing to targeted marketing. Besides the Internet, mobile medium presents important advertising opportunities Mobile marketing has been an issue of interest for both academics and practitioners. Moreover, the number of companies investing in mobile marketing campaigns is increasing. However, in spite of the increasing attention from both academics and practitioners, there is little academic research conducted on this topic and yet, the nature and implications of the mobile channel are not fully understood.

Considering the potential of mobile media, it is interesting to understand the relation between consumer's attitude towards mobile marketing and mobile marketing efforts

In this context, this research aims to help understanding this relation and it examines the factors which affect the acceptance of mobile advertising from consumers' perspective. Mobile marketing stands for the use of SMS, MMS, client applications and other interactive

multimedia methods as being marketing media in both pull and push type campaigns. Because of insufficient definitions of mobile advertising and mobile marketing terms create ambiguity in literature and, various terms seem to refer to the same phenomenon, it is important to highlight that above mentioned type of activities are investigated under the scope of mobile advertising campaigns in this study.

The study aims to investigate the appreciation of mobile advertising by consumers. Besides, another intention of the research is to cues about mobile marketing, positioning with mobile advertising, evaluation of the concepts, potentials, boundaries and finally the critical success factors from the customer acceptance point of view.

This study makes two contributions to the literature:

Firstly, assessing previous studies in the field, the study proposes a conceptual research model of consumer intention to join mobile advertising campaigns. The literature was surveyed to provide a benchmark for better understanding the phenomena and deriving the theoretical framework for the proposed research in Chapter 1 and Chapter 2.

Secondly, the model is tested by empirical data obtained from Turkish mobile market. Mobile market in Turkey has experienced 60% mobile phone penetration; three active mobile operators with around 250 service provider partners operate in the market and population is predominantly young in Turkey. Additionally, 3G (3^{rd} Generation) network licenses tender that is planned to be hold on 7^{th} of September; 2007 will allow 5 operators who will serve wide band services including advanced mobile advertising campaigns. These facts imply that Turkish mobile market has a huge potential for mobile marketing activities and mobile advertising campaigns. A model of consumer intention to participate in mobile advertising is developed in the Chapter 3 of this study, along with a number of associated hypotheses and Chapter 3 also includes the testing of the model and findings are presented, with managerial implications and suggestions for future studies. Conclusions are provided in Chapter 4.

The results of the study will provide various managerial insights to enlighten both contemporary and future cases of mobile advertising medium as an emerging one-to-one marketing channel.

Findings give insights about influential factors on customer intention to participate in mobile advertising campaigns. The results might be helpful for those who take part in Turkish mobile advertising value chain, such as mobile marketing agencies, mobile marketing advertisers, mobile operators, and service providers etc. in clearly understanding antecedents of successful mobile advertising campaigns. This study will be beneficial for brands willing to be more active in direct marketing and mobile operators who are actively involved in mobile marketing campaigns, in understanding the degree of consumer response to mobile marketing campaigns and in determination of campaign types which are more desirable for consumers to participate.

KULLANICILARIN MOBİL REKLAM KAMPANYALARINA KATILIM EĞİLİMİNİN İNCELENMESİ VE İSTANBUL İÇİN BİR AMPİRİK SAHA ÇALIŞMASI

Özet

Mobil teknoloji, markaların tüketiciyle doğrudan iletişimi için zaman ve mekandan bağımsız bir kanal teşkil etmektedir; bu nedenle mobil ortam şirketler için güçlü bir pazarlama kanalı potansiyeli oluşturur.Mobil kanal üzerinden pazarlama, sözkonusu bu temel özelliklerinin yanısıra pazarlamacılar için bir çok fırsatı da beraberinde getirmektedir. Internet ve cep telefonu gibi yeni dijital pazarlama kanalları, pazarlama mesajlarının içerik ve uygulama bazında daha kişisel ve interaktif olmasını sağlayarak, pazarlama iletişimi bağlamında tüketiciye ulaşmak için benzersiz bir fırsat oluştururlar. Cep telefonlarının yüksek pazar penetrasyonu ve yüksek hızlı mobil şebeke teknolojilerinin ortaya çıkması reklamcılık endüstrisinin dikkatini çekmektedir ve mobil ortamın bir pazarlama iletişimi aracı olarak kullanımı giderek artmaktadır. Teknolojideki son gelişmeler ve kitlesel pazarlamanın aşama aşama terkedilerek bireysel pazarlamaya geçilmesi, pazarlama iletişimi yöntemlerini de oldukça etkilemiştir. Bu kapsamda mobil kanal internetin de ötesinde önemli reklamcılık olanakları sunmaktadır.

Son zamanlarda mobil pazarlama, hem akademisyenler hem de konunun uygulayıcıları için ilgi çeken bir konu haline gelmiştir. Dahası, mobil pazarlamaya yatırım yapan şirket sayısı giderek artmaktadır. Fakat, akademik ve endüstriyel çevrelerin artan ilgisine rağmen, bu konu üzerinde yapılmış henüz çok az akademik araştırma vardır ve mobil kanalın doğası ve faydaları tam olarak anlaşılabilmiş gözükmemektedir.

Mobil iletişim kanalının sahip olduğu potansiyel düşünüldüğünde, tüketiciler tarafındaki mobil pazarlamaya eğilim ile mobil pazarlama faaliyetleri arasındaki ilişkiyi anlamak önemli hale gelmektedir.

Bu bağlamda, bu araştırma yukarıda sözü edilen ilişkiyi anlamayı hedeflemektedir ve mobil pazarlamanın tüketici gözünde kabullenilmesini, tüketicinin bu tür kampanyalara katılımını sağlayan etkenleri incelemektedir. Mobil marketing terimi, hem herkese gönderilen (pull) hem de kullanıcıların etkileşimle katıldığı (push) tipi kampanyalarda pazarlama aracı olarak kullanılan SMS, MMS, cihaz bazlı uygulamalar ve diğer interaktif multimedya yöntemleri ile yapılan kampanyaları kapsamaktadır. Mobil pazarlama ve mobil reklamcılık terimlerinin tanımlarının yetersiz olması literatürde bir belirsizliğe yol açmaktadır ve birçok terim aynı olguyu tanımlıyormuş gibi görünmektedir. Bu nedenle, bu çalışmada yukarıda sözü edilen tipteki yöntemler ile yapılan uygulamaların tamamı mobil reklamcılık başlığı altında incelenmiş, mobil pazarlama ve mobil reklam aynı anlamda kullanılmıştır.

Bu çalışma, mobil reklamcılığa yönelik tüketicilerin eğilimini ve kampanyalara katılımlarındaki etmenleri araştırmayı amaçlamaktadır. Ayrıca, araştırmanın bir başka amacı da mobil pazarlama, mobil reklamcılık ile konumlandırma, konseptlerin, potansiyellerin ve sınırların değerlendirilmesi ve son olarak müşteri açısından önemli katılım kriterleri hakkında ipuçları bulmaktır.

Bu araştıma literatüre iki açıdan katkı yapmaktadır:

Birincisi, alanında yapılmış önceki çalışmaları inceleyerek tüketicilerin mobil reklam kampanyalarına katılma isteği ile ilgili kavramsal bir araştırma modeli sunmaktadır. Birinci ve ikinci bölümlerde olgunun daha iyi anlaşılmasına ve araştırmanın teorik altyapısının kurulmasına bir dayanak noktası oluşturması için kampsamlı bir literatür taraması yapılmıştır.

İkincisi, kurulan model Türk mobil pazarından elde edilen ampirik data ile test edilmektedir. Türkiye'deki mobil sektör %60'ın üzerinde bir pazar penetrasyonuna sahiptir; üç aktif mobil operatör ve 250 civarında servis sağlayıcı çözüm ortağı sektörde faaliyet göstermektedir ve Türkiye nüfusunun çoğunluğu gençlerden oluşmaktadır.Öte yandan,7 Eylül 2007 tarihinde hedeflenen 3G ihalesi ile mobil reklam kampanyalarının üzerinde koşacağı yüksek band genişlikli 5 operatör olması beklenmektedir. Bu faktörler, Türk mobil

pazarının mobil pazarlama faaliyetleri ve mobil reklam kampanyaları için büyük bir potansiyele sahip olduğunu göstermektedir. Çalışmanın üçüncü bölümünde, tüketicilerin mobil reklam kampanyalarına katılım kriterlerinin bir modeli, ilgili hipotezlerle birlikte, geliştirilmiştir. Üçüncü bölüm ayrıca, modelin ve bulguların testleriyle birlikte sektöre yönelik çıkarımları ve sonraki çalışmalar için önerileri içermektedir. Nihai değerlendirmeleri içeren "sonuç" kısmı dördüncü bölümde sunulmaktadır.

Bu araştırmanın sonuçları, gelişmekte olan bir birebir pazarlama kanalı olan mobil reklamcılık ile ilgili güncel ve gelecekteki vakaları aydınlatmak için yönetimsel çıkarımlar sağlamaktadır.

Araştırmanın bulguları, tüketicilerin mobil reklam kampanyalarına katılma isteğini etkileyen faktörler konusunda ipuçları sağlamaktadır. Sonuçlar, Türk mobil reklamcılık değer zincirinde yer alan mobil pazarlama ajansları, mobil pazarlama reklam verenleri, mobil operatörler ve servis sağlayıcılar gibi firmaların başarılı mobil reklam kampanyalarının altında yatan faktörleri anlayabilmeleri açısından yardımcı olacaktır. Bu araştırma, doğrudan pazarlamada daha aktif olmak isteyen markalar ve mobil pazarlama kampanyalarında aktif bir şekilde yer alan mobil operatörlere, mobil pazarlama kampanyalarına tüketicinin verdiği tepkinin anlaşılması ve hangi kampanya tipinin tüketicilerce daha tercih edilir olduğunun belirlenmesi açısından faydalı olacaktır.

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Dedication

To my parents.

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CHAPTER 1:

INTRODUCTION AND RESEARCH MOTIVATION

1. INTRODUCTION AND RESEARCH MOTIVATION

Since marketing channels are parts of the overall customer value delivery network, in which each channel member and activity adds value for the customers, expectations of consumers regarding the channel network affect establishment of the channel. Hence, in order to create an empathy with the customer, marketing communications is of crucial importance. According to Kotler, two major changes in marketing communications environment have been identified since 1990's (Kotler *et al* 2005). Firstly, fragmentation in mass markets is an increasing trend and marketers are shifting to target marketing. Secondly, as Godin maintains, interactive marketing, which enables companies to focus more effectively on the individual customer and trade segments, constitutes a considerable amount within total marketing spending (Godin 1999).

Recent developments in mobile technologies are major factors in changes mentioned above. For decades, marketers have been experiencing with low response rates of direct marketing programs, and they had to rely on indirect proxy measures like reach, impressions, brand and advertisement recognition and retention to gauge the effectiveness of their traditional mass-market media advertising and promotion campaigns. However, Becker states that, as the mobile channel proves its viability and recent discoveries support its effectiveness, marketers can easily integrate the mobile channel both tactically and strategically into their marketing plans and improve ROI of their programs (Becker 2005b).

Leppaniemi stresses the profound impact of recent technological advances in gradual transformation from mass marketing to target marketing (Leppaniemi *et al* 2005). The introduction of the internet, e-mail, text messaging, wireless application protocol, relational databases and all other digital technologies both have provided marketers with the unique opportunity to access to direct one-to-one interactive channels, like the mobile channel, to reach out and engage their customers.

Changes in the market context and fast developments in technology have resulted in the growth of direct marketing. Triki mentions the synergy which originates from the

combination of the main ability of direct marketers to communicate with the customer and the ubiquitous nature and power of mobile telephony; and emphasizes that this synergy increases the likelihood of the success of direct marketing (Triki *et al* 2004).

According to Becker, the main function of marketing is the management of a company's organizational processes that fulfill customer demand in a profitable way. These processes include the management of product, price, promotion, distribution channels, customer relationships, and both internal and outbound company communications (Becker 2005b).

Starting from the mid-1990s, developed countries have been places with high levels of mobile phone penetration. As of 1997, worldwide usage of mobile communication devices was 215 million. By 2001, this number had risen to a massive 961 million and it is still rising to 1, 16 billion by 2003. Western Europe displays the highest mobile phone penetration with 79%, while North America and Asia follows with 48% and 12%, respectively. However, the European mobile sector has experienced a slowdown, recently. This slowdown forced operators to search for new services that can stimulate demand. In this context, short message service (SMS) has gone beyond all initial expectations and it turned out to be a phenomenal success. The total number of SMS messages sent globally in 2002 was 670 billion, and this number is expected to increase to 2, 6 trillion by 2007. Being an exceptional success, SMS has attracted attention of the advertising industry in terms of communicating the commercial content via mobile telephony (Bauer *et al* 2005).

When the internet and wireless technology converged in the late 1990's, a revolutionary telecommunication service, namely mobile internet was introduced. Technological transition from 2G to 3G is still on the agenda of global mobile operators, and there were more than 115 million wireless data applications users worldwide by June 2004 (Smith 2004). This figure is expected to reach 1, 72 billion by 2007, generating aggregate subscriber revenue of $584 billion (Yankee Group 2003). This impressive growth will not only change the way people live, but also, the way firms advertise (Okazaki 2005).

Mobile phones have already been used as a means of communicating commercial content to customers by major global brand manufacturers – such as BMW, McDonald's and Nike – in their commercial campaigns. International market research institutes also consider that mobile marketing is a marketing tool with a great potential and its importance is expected to rise continually (Wohlfahrt 2002).

At present, mobile marketing channel is in use mainly in promotions such as in contests and in lotteries both in global and Turkish market. However, Pura states that although mobile marketing communication constitutes a fresh place in promotion mix of companies, its role in advertising campaigns has not been studied sufficiently so far (Pura 2002).

On the other hand, The Finnish Direct Marketing Association reports that the global market can appreciate more sophisticated mobile marketing campaigns like mobile customer relationship management (The Finnish Direct Marketing Association 2001). Providing benefits of high reach, low cost and high retention rate of utilization of mobile channel leads to high expectations of service providers as well as customers (Clickatell 2002).

Moreover, the mobile channel, especially SMS, is considered to be immediate, automated, reliable, personal, discreet and customized channel enabling an efficient way to reach markets directly and providing mobile phone users with a direct call-to-action which can hardly be achieved through other channels (Barnes and Scornavacca 2004; Clickatell 2004; Lappaniemi and Karjaluoto 2004).

According to The Mobile Marketing Association (MMA), mobile marketing is "any form of marketing, advertising or sales promotion activity aimed at consumers" (MMA 2003). Mobile marketing can be conducted as either push-based or pull-based. Push-based mobile marketing means sending SMS and alerts to wireless devices. However, in order to send push messages, companies need permission of the customer. On the other hand, in the case of pull type of mobile marketing, the user demands information from a provider or advertiser (Barnes and Scornavacca 2004; Carat lnteractive 2002; Pura 2002).

Despite the fact that mobile marketing depends mostly on SMS (Short Message Service) messages today, it is thought that the industry will probably be re-shaped as MMS (Multimedia Message Service) enabled phones spread (Barwise and Strong 2002; Add2Phone, 2003). Yunos and Gao indicate that high penetration of mobile phones with larger screens will open up new frontiers for mobile marketers (Yunos and Gao 2003).

M-marketing initiates new ways of target messages to users which can not offered by existing advertising channels like television, radio, print, and mail, and thus, Kotch considers that mobile marketing has potential to be the best targeted advertising medium (Kotch 2001). A study by eMarketer shows that, approximately 40% of mobile phone users have received mobile advertisements via SMS from marketers in Asia, 36% in Europe and only 8% in the USA (eMarketer 2003).

M-marketing (Mobile Marketing) and m-advertising (Mobile Advertising) has captured much attention and it has been mentioned in a glorious way in both academic and industrial publications in global arena but, the role and use cases of mobile advertising and future relevant applications still remain uncertain. While there is not a common definition of mobile advertising, very few academicians have made research about its significance or critical factors determining its success. This is a result of the fact that m-marketing and advertising are very new concepts and they are evolving gradually from basic text messaging (SMS) to more interactive and intelligent marketing communication channels (e.g., MMS, Java client, Symbian client).

According to The Mobile Marketing Association, which is the worldwide leader in promoting mobile marketing through mobile devices, m-marketing is the use of the mobile medium as a communications and entertainment channel between a brand and an end-user (MMA 2003). Basically, m-marketing implies the process of starting planning and execution, pricing, promotion, and distribution of products and services through the mobile channel (IMAP 2002).

Market is transforming to the so-called smart phone era. In this context, as standardization in devices and networks increases, the development of m-marketing application becomes easier. As a result, it is possible that above mentioned descriptions of mobile marketing by MMA and IMAP will be realized very soon.

The purpose of mobile phone usage has already gone beyond personal and business voice communication. Significant improvements in mobile networks, mobile phones, content, applications, consumer privacy regulations, and related technology and standards have been witnessed recently. Becker notes that these improvements have resulted in the Mobile Channel, which is a multi-faceted interactive network by which companies provide communication, personalization, information and entertainment services to an individual's mobile phone through various mobile delivery technologies (Becker 2005b). These new technologies today are composed of SMS (text messaging), picture messaging (multimedia messaging), mobile internet (WAP), mobile email, Bluetooth, and interactive voice response. The introduction of the internet, email, text messaging, wireless application protocol, relational databases and all other digital technologies provided marketers with the unique opportunity to access to direct one-to-one interactive channels, like the mobile channel, to reach out and engage their customers. Companies use a variety of mobile delivery technologies for both marketing and delivery of communication, personalization, information and entertainment products and services to the customer, and these mobile delivery technologies are features of the mobile channel, which is a multi-faceted interactive, interoperable network (Manis 2005, Becker 2005a, Becker 2005b, Bragge *et al* 2005, Dickinger *et al* 2004, Nysveen *et al* 2005).

Mobile Channel is not only used for the delivery of mobile services, but also it is increasingly used worldwide for marketing purposes that consist of lead generation, branding, customer relationship management, customer retention, and more.

The fact that the mobile channel as a marketing medium is personal, interactive, time, and location independent, makes it different from traditional channels like TV, radio, and newspapers. However, although the popular press, analysts, application providers, and other industry practitioners have been highly interested in the appearance of the Mobile

channel, there exist many unanswered questions about how to take advantage of this new channel in the most effective way.

Most studies about the mobile marketing industry are qualitative in nature because of the fact that it is in very beginning. These studies aim to find dominant theory and to develop theoretical frameworks and definitions that can be useful in understanding of the Mobile Channel. Their other aim is to identify appropriate strategies and tactics in order to use the Mobile Channel effectively. The mobile value chain and ecosystem, integrated marketing, wireless advertising, location based services, and permission marketing and best practices were some of study topics that were explored by most of the recent studies.

Qualitative and empirical data published so far reveals that mobile marketing can be very effective, but Becker argues that studies done until now to prove or disprove effectiveness, customer perception and customer intention analysis are limited. Thus, more elaboration on the topic is needed (Becker and Hanley 2006).

By early August 2006, The World Advertising Research Center (WARC.com) database includes 600 advertising or marketing research articles about mobile marketing. A search of "mobile marketing" at Google Scholar Search resulted in 28,500 sources, while a "cell phone advertising" query found 6,970. Growth in mobile marketing-related conferences papers has been slow. At the August 2006 conference of the Association for Education in Journalism and Mass Communication, the number of papers presented in the Advertising Division about mobile marketing was four, which is higher than one in the 2005 Conference.

Leppäniemi *et al* (2006) studied fifty conference papers and journal research articles pertaining to mobile marketing published between January 2000 and February 2006. The research reveals a vast range of mobile marketing topics, which include the mobile ecosystem, consumer attitudes and value of mobile advertising.

Even with all this work, however, Leppäniemi *et al* (2006) indicate that "…despite the increasing number of publications, the growing body of literature on mobile marketing is somewhat inconsistent and highly fragmented. This is due, in large part, to the fact that a common conceptualization of the phenomenon is still lacking". For example, the article shows 21 different definitions of mobile marketing based on the studies elaborated. Thus, a more focused approach is evidently needed.

The first published academic study on mobile marketing goes back to 2001. However, Figure 1.1 (Leppäniemi *et al* 2006) shows that the number of research papers published on the topic is progressively increasing.

The initial research motive of Academic efforts was determination of the antecedents and consequences of mobile marketing. Among the pioneering efforts in mobile marketing research in general, there were studies of Barnes (2002), Kannan *et al* (2001), Yunos *et al* (2003), Sullivan Mort and Drennan (2001, 2002), and Kavassalis *et al* (2002, 2003).

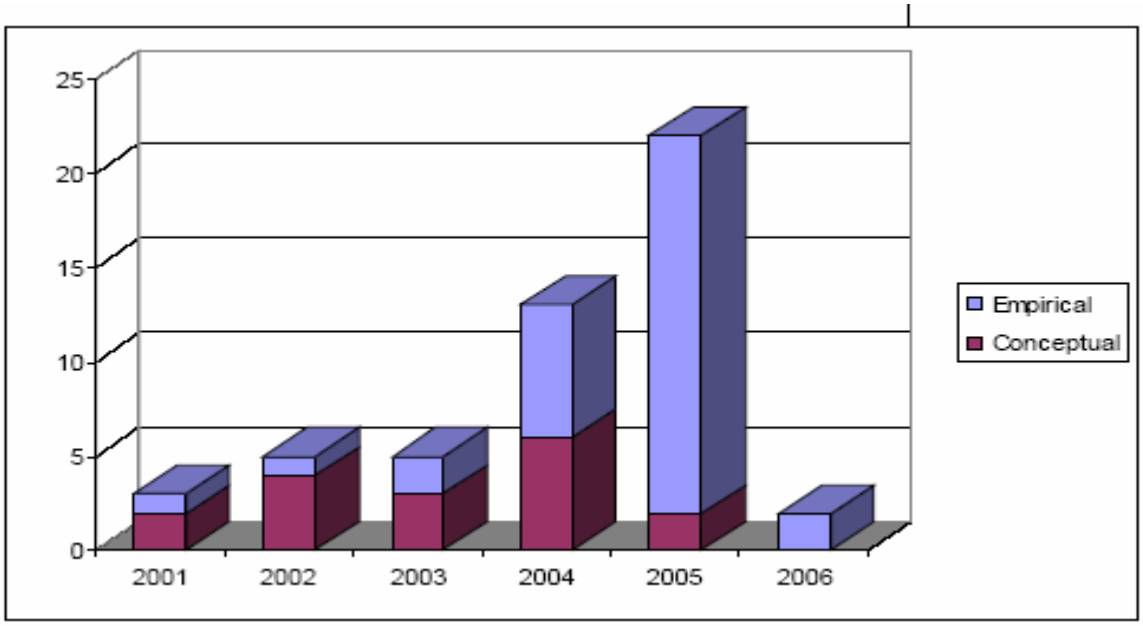


Figure 1.1: The number of mobile marketing publications per year. (Source:Leppäniemi *et al* 2006)

As stated before, most of the literature about mobile marketing is qualitative in nature, because of the fact that it is still considered to be in the embryonic stage (Becker 2005b). Those works were conceptual by nature but, their conceptualizations provided a solid foundation for significant number of researchers who have involved in empirical explorations.

After these initial studies, many authors examined the nature of mobile marketing (Dickinger *et al* 2004, Tähtinen and Salo 2004, Tähtinen 2005) and the role of mobile marketing in companies' promotion mix (Karjaluoto *et al* 2004), and then they made contributions to the initial conceptual foundation.

Okazaki (2005) conducted an empirical survey of the perceptions of multinational corporations (MNC) operating in Europe regarding mobile advertising adoption in order to contribute to fill this research gap.

Virtanen *et al* (2005) explored the perceived barriers to growth in mobile marketing and identified ways to prevail those barriers, and this research also shed light on mobile marketing adoption. They advocated that there are six main barriers for the growth of mobile marketing as a marketing medium, namely: 1) lack of research, 2) resistance to change among marketing service providers and marketers, 3) lack of co-operation and knowledge sharing, 4) fear of technology, 5) complexity of implementation and 6) fear of spam stigma. Ultimately, they offered a list of suggestions for how to overcome the barriers.

A careful advance planning is needed before sending messages to a consumer's phone, because mobile phones possess intimacy in their nature. There are not only worries about attacking people's private lives; but also, because of mobile spams, there are raising privacy concerns related to the utilization of personal and location data used to personalize mobile marketing messages. Regulatory bodies throughout the world are well aware of the importance of solving these issues, so they have issued laws to protect user privacy. Camponovo and Cerruti (2004) furnish decent contributions about regulatory issues

concerning mobile marketing. Their paper includes illustrations and comparisons about the regulatory frameworks of Switzerland, the European Union and the United States, and an analysis of the possible implications for the mobile business industry in general. Also, Petty (2003) studied the legal and policy deriving from mobile marketing in the United States. His conclusion was that there should be a balance between the right to privacy and the right to market by, and this balance could be attained by establishing mechanisms of consumer choice.

Besides publications mentioned above, there have been some papers exploring on different mobile marketing applications.

Wehmeyer and Muller-Lankenau (2005) studied on mobile couponing and their study provided the first evidence regarding consumer acceptance and preferences for mobile couponing service attributes. They included four service attributes in the conjoint experiment and results showed that the configuration channel had the greatest relative importance, followed by the type of coupons, the possibility of personalizing the offered coupons, and the location-awareness of the couponing service. The study of Kölmel and Alexakis (2002), which was among the first mobile advertising studies, constructed an overview of location based advertising. In his conceptual study, Han *et al* (2004) provided a framework which referred many of the issues that are characteristic of mobile gaming and advertising. According to the proposed framework, time and location-sensitive interactive marketing is facilitated by means of the location-aware technology which provides users with the capability to collect nearby items such as m-coupons and exchange those items in nearby participating stores. These applications are just a few of the many, and it is possible that the number of practical implications and academic publications will rise drastically in the near future.

Leppäniemi *et al* (2006) points out that conceptual analysis of mobile marketing dominates existing literature as compared to empirical studies. However, empirical research in mobile marketing is given more importance today, and it is growing very fast. Becker believes that research has a crucial role in direction of the future practice and development of mobile

marketing (Becker and Hanley 2006). Although the literature provides a lot of information about the effectiveness of mobile marketing, there is much more to learn about consumer attitude towards mobile marketing and advertising. Consequently, mobile marketing and advertising is still in its embryonic stage within marketing communications, despite the fact that initial overoptimistic expectations have taken justifiable reaction. There is still place for marketers to learn to use it in terms of brand strategy, creative execution and evaluation.

In this vein, the topic of effective use of the mobile channel for consumer and business marketing has started to attract attention of academics who are all over the world.

Some instructive studies recently have been focusing on raising and answering the necessary; what, why, how, how many and how much questions of mobile marketing. Due to the fact that mobile marketing is a brand new topic, there has been little substantive research published about the effect of these unique characteristics and related variables on a consumer's response to a mobile enhanced advertisement or promotion; and about the effect of the advertisement or promotional medium itself, i.e. TV, radio, print media, Internet, text messaging, wireless Internet, multimedia messaging, etc. on response to the outcome of a campaign. In fact, Virtanen reports that, industry practitioners and those who participated in a Nokia Mobile Marketing Summit '04 workshop stated mobile marketing effectiveness and ROI research to be one of the top challenges facing industry practitioners today (Virtanen *et al* 2005).

Despite the fact that fewer empirical quantitative studies have been published so far, these published studies have been significantly helpful for understanding of the Mobile Channel. A study, published in the February 2005 issue of the Journal of Service Research, titled "Mobilizing the Brand, The Effects of Mobile Service on Brand Relationship and Main Channel Use" by HerbjØrn Nysveen, Per Pedersen, Helge ThorbjØrnsen, and Pierre Berthon, is an example of these empirical studies. Considering that today brands are faced with the challenge of reaching to their target customer becomes a challenge , because of, among other things, the fragmentation of market segments and the general decline in

advertising effectiveness in traditional media (TV, radio, newspaper, magazine, and related print), this study is especially timely.

Meanwhile, an increasing number of findings support the belief that the effectiveness of traditional retail, broadcast, and media channels is vanishing due to the hyper fragmentation of traditional channels. Anderson mentions that introduction of new media channels brought about an accelerated decline in network TV audiences, newspaper and magazine circulation, and radio listeners (Anderson 2005). Results of a recent Enpocket Media Monitor US survey showed that 58% of all adults would give up newspapers and magazines and 12% would give up TV, before giving up their mobile phone (Enpocket 2005).

Traditional TV advertisers show exact rate of decline. The study by Foust supports that leading corporations like the Coca Cola Company have started to reallocate their TV media funds in favor of new channels (Foust 2004), including mobile. For example, Coca-Cola's campaigns of Beijing Coke Cool Summer program in 2003 and 2005 summer campaign in Germany where 800 million bottles were encoded a text code each, were some of the largest mobile marketing campaigns in history (Morrissey 2002, Marketing Goes Mobile 2005). The fact that mobile phones are becoming widespread and their usage as a primary communication channel have an effect on even traditional telemarketing and market research (Callegaro and Poggio 2004), and the growing trend toward individuals giving up their landline for their mobile phones shows exactly that adoption of mobile phones is increasing. For example, reports show that nearly 35% of the population in Finland is accessible only via their mobile, while this number is 9% in the U.S. and it is growing (Preferring to Go 2005). Mobile penetration in Turkey is approximately 60% and it is on the rise as well, but internet penetration is still around 14-15%.

A study conducted in Greece by Kavassalis supports the idea of increased effectiveness of mobile marketing over traditional media providing the evidence that response rates of text messaging campaigns are generally in the range of 10~20% being far more than that of email (5%), direct mail (1~2%) and print advertising (0.15~0.60%) (Kavassalis *et al* 2003).

Kavassalis also reports that mobile marketing campaigns lead to high brand recall (46~64%) and high redemption of in store coupons. Ruth Rettie notes in another study that mobile marketing has a positive effect on reach (Rettie and Brum 2001). Rettie and Brum's study concludes that 89% of all text messages are read and that 85.7% of respondents with positive attraction towards the brand were reported to be more likely to make a purchase.

The Mobile Marketing Association also note that mobile campaigns in which messages are forwarded to others at a rate of 5~32% (CTIA 2005) have a viral nature, showing that word-of-mouth (another important measures) is a key by-product of mobile marketing.

These studies support that the factors increased response rate, improved brand loyalty, rise in message virility, and growth of sales resulting from mobile or mobile enhanced marketing campaigns are readily available and directly measurable for companies. However, acceptance by the consumer is the critical factor determining the success of a new marketing instrument.

Therefore, assessment of consumer's intention to join mobile marketing and its more common application m-advertising campaigns as addition to examining potential of this relatively new marketing channel is very interesting areas to be explored.

When mobile penetration rate of 60% in Turkey, higher than fixed-line penetration, one can say there is a high potential of mobile marketing to be unleashed. Mobile phones are highly popular, they develop very fast and they offer techniques of direct marketing but, their use in marketing applications still remains limited. Also, there has been limited research in this area. As a result, the study on the role of mobile technology in direct marketing would be useful for decision makers working in the field.

This study aims to present findings from the analysis on mobile marketing and advertising in Turkish market, it intends to recognize the emerging customer responsiveness to mobile advertising and effectiveness of it as well as analyzing factors that affect customer willingness to join mobile advertising campaigns by evaluating answers to the research questions.

The study investigates the attitude of the customer towards mobile advertising including challenges, such as technological and behavioral issues, with using a review of recent literature on mobile advertising and results of research that is conducted in local market within the scope the study.

1.1 Mobile Telecommunication Sector Outlook

According to latest report from Visiongain, well known research company, there are over two billion mobile phones subscribers and by the end of 2006, another 500 million phones will be in use. They forecast that the number of users will increase to almost three billion globally, by 2010 as shown in Figure 1.2.

Year	Total (bn)	Subscribers growth (%)
2004	1.7	-
2005	2.1	16.7
2006	2.3	14.3
2007	2.5	12.5
2008	2.7	11.1
2009	2.8	10.0
2010	2.9	9.1
CAGR:		**9.31%**

Figure 1.2: Mobile subscribers 2004-2010 (Source:VisionGain 2006).

They expect some growth in North America and Western Europe although much of the growth will occur in developing countries. Actually, mobile penetration in some countries

is over 100%, means they have more mobile phone than people. In the UK, mobile phone subscriptions exceed the population, with 61.1 million handsets currently in use. Likewise, in Italy, penetration is over 100% with over 58.2 million mobile phones. Germany, with 74.1 million subscribers, has a penetration rate of 90% and is the largest market for mobile phones in Europe. France has only 78% penetration, with 47.4 million handsets. Spain has 41 million subscribers, over 100% penetration. There are 203 million mobile phone subscribers in the U.S., representing 69% penetration (VisionGain 2006).

Although second and third big mobile operators are not quoted to stock exchange, so the numbers are not officially declared, it is estimated that there are over 40million mobile subscribers in Turkey, which represents over 60% penetration. Having also considered the population is relatively young, it is very normal to expect there is still a high potential in mobile sector to have a growth in Turkey.

On the other hand, consumer spending on mobile data products and services grew continually on a global basis in 2005. Globally, carrier data ARPU (Average Rate of Usage per User) demonstrated a rise from $3.92 in Q2 2004 to $4.11 in Q2 2005, representing 12.4% and 14.5% of total ARPU respectively. According to the estimation of Strategy Analytics, the global end user spends on mobile data services will grow from $92.2 billion in 2005 to $114.4 billion in 2006. Person to person text messaging via SMS will account for 56% of end user spend on mobile data services and it will continue to be the dominant application globally.

They foresee that a combination of key factors including, broader penetration of 3G (3rd Generation) devices, wider availability of services at lower cost, more robust and ubiquitous 3G network access and growing consumer awareness of services will stimulate a global growth in spending on mobile data services/products, which is expected to be 26%, from $92.2 billion in 2005 to $114.4 billion in 2006 (Figure 1.3) (Strategy Analytics 2006).

2006 forecasts show that, the mobile phone is rapidly becoming a primary means of communication, not only for voice but also for digital services, such as email, video, music

and photos. The growth of next generation services (such as EDGE, 3G applications) enables a much faster transfer of wireless data, which makes mobile technology increasingly sophisticated. Thus, mobile marketing is beginning to live up to its potential.

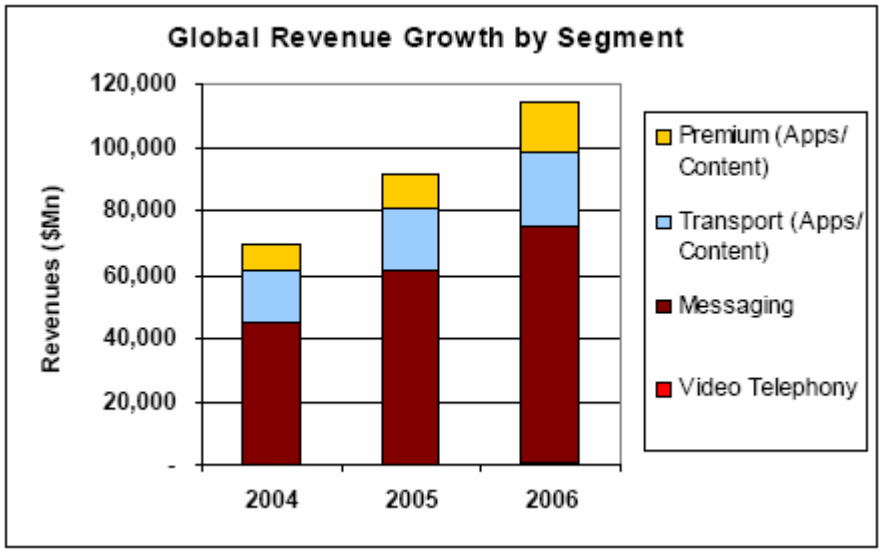


Figure 1.3: Global growth in data revenues (Source: Strategy Analytics 2006).

Although SMS is the most common version of mobile marketing, the practice of mobile marketing has achieved to the level of incorporating 3G video, viral campaigns, music downloads, bluetooth transfers and even redeemable high street vouchers, rather than simple SMS promotions and ringtones.

Mobile advertisement can be in the form of multimedia messages, including e.g. picture, text, sound and video clips. The messages are sent to the consumer in the same way as traditional SMS messages and the consumer does not have to pay anything for them. WAP Push is another available technology. In this case, a so-called service indicator message, including a description of the mobile advertisement and an URL (Universal Resource Locator) is first sent to the consumer. When the consumer receives the service indicator, she/he can decide whether to browse the actual mobile advertisement by using GPRS (Global Packet Radio Service), or not. Consequently, browsing the ad bears a cost to the

consumer, because of using the GPRS connection, which is a service offered by the consumer's service operator. Komulianen concludes that, being able to utilize all XHTML (The Extensible HyperText Markup Language) features, a WAP (Wireless Application Protocol) Push ad can direct the consumer to the advertiser's web pages, if they are suitable for mobile browsing. (Komulianen *et al* 2004).

Multimedia content becomes increasingly available, providing a large opportunity for sophisticated forms of mobile advertising. Contents which include advertising - like live TV programming – can be sent to mobile handsets, so the value of presenting full multimedia ads with programs is beginning to be appreciated by brands and entertainment content providers.

Considering operators in the U.S. and Western Europe, advertising with 3G services is currently either in the stage of testing various forms of it or is already allowed to be served on operator portals. A number of multimedia companies launched mobile advertisings in first six months of 2006 within their multimedia offering. Furthermore, large online search engines (Google, Yahoo) are stepping into the mobile world, which creates new advertising opportunities in the shape of context-based mobile search.

Despite being a fresh market in 2005, mobile marketing and advertising created a market of $255 million in Europe and the United States, and moreover, according to the forecast by VisionGain, mobile marketing and advertising in these two geographical areas will grow to exceed $1 billion in 2009, if some certain elements are formed (VisionGain 2006). There seem to be many issues including business models and revenue share, the type, length and frequency of ads and consumer attitudes expecting to be resolved.

Operators will have to strive for both maximizing the revenue potential of advertising, and at the same time not risk alienating subscribers which leads to an increase in churn.

1.2 Evolution of Mobile Marketing Concept

The emergence of wireless marketing technologies is providing unique opportunities for mobile carriers, advertisers and publishers in terms of generating new revenue streams through existing and new customers. As the consumer continues increasingly to adopt wireless technologies, marketing via wireless devices will become an important part of all integrated data communications strategies very soon.

Becker defines marketing as the function helping a company tell the market what it does and giving information about the company's products and services and in this role marketing is directly involved in making money for a corporation (Becker 2005b). Kavassalis asserts that SMS marketing possesses interesting properties namely, high-speed message delivery, interactivity, great customer reach, and a response rate five times higher than direct mail (Kavassalis *et al* 2003). Collaboration among campaign sponsors (brand, content owner, media, or retail property), marketing agencies and mobile applications-network partners will produce mobile or mobile enhanced traditional media marketing campaigns to stimulate a positive consumer response.

In spite of the fact that long-term viability of mobile marketing and short-term implementation challenges are debatable, mobile marketing can drive incremental revenue, enhance consumer loyalty and provide convenience for mobile consumers, and thus be beneficial for consumers, mobile service providers, publishers and advertisers.

Possessing features of mobility, time sensitivity, interactivity and advanced personalization, mobile channel largely differs from any other communications or marketing channels. As cited in Sky Go report, it provides marketers with the opportunity to literally place a brand in a consumer's hand (Sky Go 2001).

For instance, in the phase of just learning about the product or service respondents may be led to search for additional information, which can be received by contacting the company through the mobile web, instant voice response (IVR), messaging, online, or at a bricks 'n

mortar store. When the consumer shows his/her inclination responding to a mobile program and completing the information gathering step, the next step in the consumer lifecycle is to purchase. Nysveen shows that a mobile marketing campaign can influence a consumer in two ways. It can have direct influence in purchasing a product or service via Mobile, Online, or Offline channels. Secondly, it can create brand trust with the consumer, and thus indirectly influence future purchases through any of channels above (Nysveen *et al* 2005).

In terms of revenue generation, traditionally marketing has an indirect role by helping an effective communication of the value of the corporation's products or services, pricing them inline with market demand, and enabling a number of payment methods like Premium SMS, Credit Card, Debit Card, etc. to facilitate a purchase. The marketers are neither the actual producer of the goods or services nor the salesperson making the final selling. However, according to circumstances, if the campaign is an experience which is attractive enough for the user to spend money, the marketing campaign itself can generate revenue. Becker proposes that marketers can either apply Premium SMS, loyalty point programs, or other billing methods in order to charge the consumer for participating in the marketing program, or they can sell sponsorship and ad placement within the campaign experience (Becker 2005a).

For example, a TV viewer voting for a TV show like Big Brother in the UK, or a concert attendee receiving a ringtone to be entered to win a seat upgrade during a concert event may all be charged. Also, Advertising Messages can be included in the body of an SMS message, in an inline or interstitial ad on the mobile web or in an IVR based exchange, or they can be embedded within a mobile game for example, so marketers can sell and embed sponsorship or advertising directly into the campaign.

Additionally, mobile marketing can create cost efficient programs that establish brand awareness, generate leads, convert leads to customers, and enhance customer loyalty. Becker notes that as compared to traditional methods, the variable cost for standard rate non-premium mobile initiatives is extremely low. The cost averages around 0.02~$0.05/message for moderate volume SMS programs and it may decrease to even

$0.00 per interaction for high volume SMS programs with certain aggregators and channels. In the case of commercial email services, the cost per transaction can be as low as $0.01, while IVR services cost around $0.07 and often higher per minute. With traditional direct mail, the costs are even higher. Not having the added time and location independent benefits of mobile programs, even Pay per Click ads on the web cost significantly higher than the mobile interaction (Becker 2005a, Becker 2005b).

The fact that mobile marketing can generate higher response rates than complete traditional media is just one of the many unique characteristics of mobile marketing, and has a distinguished place in the marketing effectiveness puzzle. The costs of mobile marketing campaigns are often an insignificant part of the overall program budget, as compared to regional or nationwide traditional media.

Having one of the lowest variable cost per message, mobile marketing is highly personal, and it achieves the highest response rate.

Moreover, it should not be ignored the fact that mobile is capable of turning any traditional channel into an interactive medium, which improves the ability of marketers to establish an enduring and profitable relationship with customers.

By means of a proper management of this relationship, customer revenue and value to the firm can be increased over time. The use of the mobile channel as a marketing tool is a very recent issue in the U.S. and is gaining a lot of interest in other parts of the world.

Leading brands have been recognized the benefits of mobile marketing and they have not missed them. In fact, Pearse refers to Coca-Cola's marketing manager James Eadie saying "mobile marketing could be phenomenally important, when you look at the penetration of handsets and the passion the audience has for mobile…as a way of connection, it ought to be phenomenally powerful and more important than TV. So we should be spending 50% of our marketing budget within decades" (Pearse 2005).

Triki *et al*. (2004) identifies that main targets of advertisers to adopt this new tool are, technological factors, market relevant environment factors such as competition, individual factors such as presence and personalization, and finally organizational factors such as innovative brand building.

Marketers are in an appropriate situation to significantly add value to their organization more so than at any time in history. The use of mobile marketing for marketers is that it enables them unique and engaging one-to-one relationships with their customers.

Being creative, investing the time to learn and experiment with different mobile and traditional media mobile enhanced campaign configurations, and making creative applications on mobile are key success factors for marketers with mobile and to make money out of this immensely powerful new medium.

1.3 Cases of Mobile Marketing Utilization

A basic definition of the mobile marketing can be the use of "the wireless" to deliver "any paid form of impersonal presentation and promotion of goods, services, ideas by well-identified promoter" (Kotler *et al* 2002).

Each channel is peculiar and they differ from any other channel in terms of advertising and campaign formats, so the mobile marketing can be very different from traditional ways, depending on the goals of the specific initiative. Possible formats and initiatives of mobile marketing are presented in Figure 1.4 (Facchetti *et al* 2005).

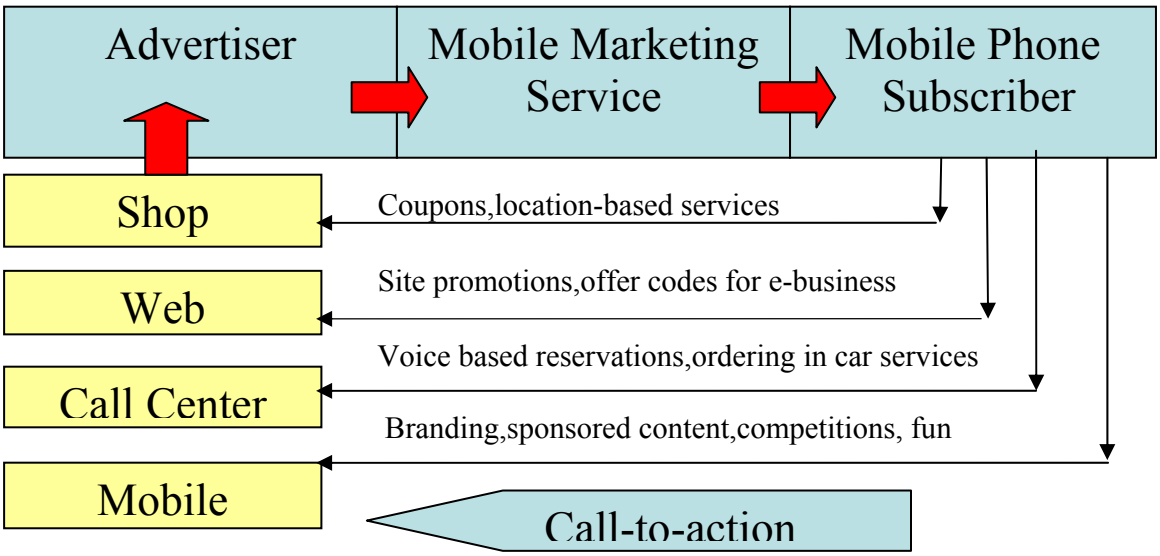


Figure 1.4: Possible mobile marketing formats and initiatives (Source: Facchetti 2005)

In order to reach a correct definition, the mobile channel should not be thought of an extension of the wireline internet. Firstly, the fact that the mobile content has peculiarities should not be ignored, and these peculiarities can be designed according to three characteristics (de Lussanet and Nordan 2001, Devine and Holmqvist 2001, Gartner Dataquest 2001, Kavassalis *et al* 2002, Schmid *et al* 2001):

- *personalization* of mobile phone is not usually shared among users because it belongs to one specific individual; which presents a great opportunity for customized content,

- *positioning* which means the supply of relevant information to the user according to his or her location at a particular moment,

- *time sensitivity* refers to both to update information suitable or adopted to a specific time or occasion and to make services available continually, independent of the moment.

In addition, the legislation about the privacy and the technology is among other issues that have an effect on the mobile context. The legislation in Western Europe will probably have uniformity and it is already defined, at least for a short period of time. The European Commission presented a new "Proposal for a Directive of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector" on December 19th 2000, and the proposal was voted and accepted by the European Parliament, on May 30th 2002.

On the other hand, concerning the technology, interoperability between different networks is exceptionally important, and also the availability of localization technologies and mobile terminals is a key point.

Eden Zoller (2004) mentions that; although mobile marketing has a great potential, the scenario where promotional messages are pushed to consumers every time they walk past Starbucks is somewhat intrusive. Such a use of mobile marketing can be perceived as spam and at best a carefully managed opt-in database with tight control on the frequency of messages sent would be needed.

Zoller proposes the following ways for the usage of wireless marketing in reality (Zoller 2004):

- *Customer acquisition:* Application of wireless marketing in order to reach and, hopefully, acquire new customers. To achieve this, some direct response strategies including promotions, competitions or placing an advertisement on a popular service/channel can be used.

- *Customer relationship marketing (CRM):* Being a relatively new area for wireless marketing, CRM can improve relationships with existing customers by enhancing brand awareness and creating a continuous dialogue. Loyalty and customer retention schemes and sales support programs can be used as strategies.

- *Driving Sales:* Wireless marketing can effectively cause an increase in micro payments that are initiated and fulfilled by using the handset, such as buying a ringtone released to promote a new single. For larger, more expensive products and services, generating sales leads is the main aim of campaigns. For example, vouchers can be sent to encourage consumers to go to a physical shop or website. Moreover, these activities can contribute to loyalty schemes and ongoing CRM activity. The next step along from using SMS (or other platforms) as a direct response tool is CRM activities supported by wireless marketing, and it is strategic rather than tactical.

Promotions based on text-to-win competitions and those linked to interactive television, such as opinion polls, voting and games are the most common and successful forms of mobile marketing. Usage of vouchers or coupons in order to drive sales is also popular, and barcodes cited is a new application with a promising future in this area. Being primitive forms of mobile marketing, vouchers or coupons are also the most applied mobile marketing applications in Turkey. BP, Pepsi, Coca-Cola, and Ülker Group are among big and well recognized brands which have been organizing similar campaigns for 3-4 years in Turkey.

Astrid Dickinger and Parissa Haghirian (2004) studied on the issue of grouping mobile marketing applications in similar categories and they concluded the following:

- *Text Messaging Applications:*160-character limitation has adverse effects on the design of cell phone messages, so SMS is not advised to serve as the main media in a campaign,

- *Mobile Couponing:* Companies are able to send coupons to cell phones through SMS. Mobile couponing provides marketers with at least three advantages: targeting based on customer cell phone numbers; time sensitivity, for instance receiving a 20% discount on purchases immediately after entering a shop; and

efficient handling by scanning the coupon's bar-code at the cash desk. Raskino (2001) forecasts that frequency of mobile coupon usage by consumers will be 300 times greater than that of ordinary paper coupon usage,

- *Information Services:* News, weather, traffic, market rates, horoscopes, or songs just played on the radio are examples of information services that are funded by advertisings. The information would be personalized and relevant for the receiver of the services, and he/she would pay little or nothing,

- *Mobile CRM :* CRM activities like receiving free newsletters, pictures, ring tones, bonus points and coupons after joining a customer program, are supported by SMS,

- *Branding:* Mobile marketing is used as a branding tool. Wella, a top seller of hair cosmetics and fragrances in over 150 countries, sent a message including a kiss to all their clients that gave permission to receive SMS messages from Wella, as a part of its campaign. The Wella kiss was appreciated by customers so much that it was forwarded to friends. As Murphy indicates, with this viral impact, a high effect for a low cost was achieved (Murphy 2003). Wella paid only for sending text messages to the opt-in clients, but the messages passed on to friends did not cost anything,

- *Entertainment:* As most people enjoy playing games, providing games and prizes via text messaging results in high participation. Sending games and prizes to the customer's cell phone presents an entertaining way to attract and keep customers.

The mobile competition run by Warner Brothers Movie World in Germany is an example of entertainment type of mobile applications. In that competition, customers were invited to send a certain message to three friends as quickly as possible, and they were also asked to forward the message to Warner Brothers. The first five teams which had succeeded to complete the cycle received free tickets to Warner Brothers' Movie World entertainment park (Ford *et al* 2003). Findings of a Siemens Survey and Gartner Research shows that

entertainment applications are especially appreciated by " generation @" segment – young World Wide Web users between 12 and 16 years old (GlobalReach 2002).

- *Product Launches:* Mobile marketing is also instrumental in supporting product launches, especially services. The success of mobile advertising depends on appropriately embedding it in the marketing mix. Multimedia content will be enabled by broadband access and advanced mobile devices and this will speed up image campaign possibilities,

- *Location Based Services:* Location based services that have a connection with a distinct location enable local advertising – i.e., a person might be sent an SMS including directions to the nearest restaurant or bus station. A registered client can receive advertisements from a company when this client passes the point of purchase, and this illustrates the time sensitiveness of this approach.

Simply considered, the use of mobile marketing is to furnish the mobile channel for marketing. Mobile marketing is a practice in which brands and marketers are in interaction with their audience through the mobile channel, including through messaging (SMS, MMS, Email), voice (IVR), alternative alerts (Bluetooth, etc.), client based applications (Java, Symbian) , WAP, mobile advertising, and data services like Mobile TV, picture recognition, mobile portals, etc.

Being less then a decade old, the concept of mobile marketing has only been in practice for the last few years. The Direct Marketing Association (2006) states that aims of marketers for employing mobile marketing are:

- Response fulfillment,
- Sales promotion support,
- Direct sales (through downloadable content),
- Interactivity' (such as voting and competitions),
- Customer service support,

- Research and data collection,
- Store traffic generation,
- Couponing and ticketing,
- CRM (Customer Relationship Management),
- Advertising,
- Branding.

Industry case studies and academic research have provided a lot of information about mobile marketing and consumers' acceptance of it. Becker and Hanley (2006) present some of the statistical insights about the mobile marketing:

- It is often a preferred channel for certain demographic segments (youth, ethnic groups, women, and others) and it can effectively generate response rates from these segments: WAP banner ads responses of 3%-5%; SMS programs 3%-10% or higher; and there are examples of MMS campaigns up to 20% (Kavassalis *et al* 2003, Baker 2006, Enpocket 2005, Levey 2006, Young 2005),

- The connected customer can be engaged by the usage of incentives like free minutes, coupons, sweepstakes, content, money, and so on. However, currently certain markets do not allow many of incentive models because of legal and regulatory constraints,

- It is interactive and useful in converting normally static media (TV, print, radio) to interactive, personalized, informative and entertaining media (Marriott 2006, Bauer *et al* 2005, Manis 2005, Bragge *et al* 2005, Dickinger *et al* 2004, Nysveen *et al* 2005),

- It can effectively collect customer information that has been very difficult, if not impossible, to previously gather and utilize via other means. Customer information includes location, time, presence, and immediate purchase intentions,

- It is increasingly being adopted by marketers. By 2008, mobile marketing in its various forms will being employed actively by up to 89 percent (depending on geography) of marketers (Marriott 2006, Pearse 2005, Airwide Solutions 2006),

- It is an effective way to promote and deliver contents and personalization softwares,

- It can be instrumental to support other research methods. For example, a recent study indicates that "adults are 3.5 times more likely to agree to participate in a panel study using a cell phone (66%) versus 18% who would agree to carry a pager" (Loechner 2006).

It should always be considered that, with all sponsorship possibilities it provides, mobile marketing is also a cost effective and attractive way for marketers as well as consumers.

M-advertising is an advertising medium which offers new ways of targeting messages to users that traditional advertising channels (e.g., television, radio, print, and mail) can never achieve, so Leppaniemi strongly advocates that it has a great potential to become the best-targeted advertising (Leppäniemi *et al* 2005).

In particular, Mylonopoulos and Doukidis mention that mobile e-mail has been thought of an effective tool to "enhance brand awareness, build or test customer loyalty, and develop or enhance demographic databases" (Mylonopoulos and Doukidis 2003).

According to an earlier pilot study conducted, 79 per cent of participants recalled 60 percent of mobile advertising, which is a surprisingly high level of recognition in mobile advertising (Barnes 2002).

In addition, Kavassalis proposes that being able to engage in "one-to-one dialogue" with customers, firms that use mobile e-mail campaigns can attract consumer attention and

produce much more consumer responses than other direct marketing channels can (Kavassalis *et al* 2003).

An experimental survey by Ericsson reveals that receiving mobile advertising was liked by 60 per cent of samples (Barnes 2002).

Similarly, Barwise and Strong's survey in which trial mobile advertisings of popular brands were used revealed that about 84 per cent of 500 young British adults are likely to recommend the service to their friends, and just 7 per cent are likely to give up the service (Barwise and Strong 2002). On the other hand, Kavassalis notes that by complementing mobile advertising with other channels, such as the internet, television, print media, and personal contact, marketers can maximize their campaign effectiveness (Kavassalis *et al* 2003).

Forecasts of analysts show that mobile advertising will clearly become more relevant in near future. As Leppäniemi finds, the expected growth in m-advertising market is from US$16 billion to US$23 by the year 2005 and to US$17.2 billion by 2007 (Leppäniemi *et al* 2005). This means that m-advertising is very popular and it is growing rapidly especially in Asia and Europe. A study by eMarketer shows that percentages of mobile phone subscribers receiving mobile advertisements (SMS) are approximately 40% in Asia, 36% in Europe and only 8% in the USA (eMarketer 2003).

As Varshney &Vetter states, advertising using mobile devices as communication vehicle, namely mobile advertising, can be evaluated as one of the most important and promising applications of mobile services (Varshney and Vetter 2002). A number of different actors can find potential revenue-generating opportunities in mobile advertising, but there is still rather a fragmentation in the industry (Durlacher 2000).

It might be initially considered that the m-advertising industry is composed by two different and quite distinct industries: advertising and telecommunications. Both the advertising

business and the software business have roles in development of mobile advertising service. When the more traditional modes of advertising business (newspaper advertising, TV advertising etc.) are considered, it is obvious that there is a variety of actors, each with their very specific areas of expertise and roles (Komulainen *et al* 2004).

When we look more closely at the industry, we see that mobile marketing companies and technology providers have been main drivers of the emergence of m-advertising. However, IMAP reports that effective utilization of mobile channel is ignored by traditional advertising players such as ad agencies and media agencies at the moment (IMAP 2003).

Being well established industries, traditional advertising and telecommunications have their own "best practices" and revenue models. However, the m-advertising has failed to successfully integrate these two different industries so far (Komulainen *et al* 2005).

For example, Finland is a country with a very high mobile phone penetration, but still SMS-ads are the only commercially available mobile advertising solution there, although using MMS or WAP Push technology would provide advertisers and consumers with much more value through the use of images, voice, videos etc. Mobile advertising has the potential, but the revenue-generating opportunities are yet to be utilized, and a successful business model is yet to be found. In order to be successful in the mobile business, co-operation among various business actors such as technology providers, device manufacturers, content providers, service developers etc. is required to bring value to the end customer. Since the development of the mobile advertising service requires a large number of actors to coordinate and combine their activities and resources, Komulainen implies that it takes time to establish a viable business model (Komulainen *et al* 2005).This implication is also relevant for Turkish market, because currently mobile advertising campaigns are mainly driven by operators and mobile marketing agencies who act as service providers.

In this vein, identification of the key players is necessary to analyze the mobile advertising market dynamics. The advertisers, the m-advertising companies, the media owners, the

traditional advertising agencies, the network operators / carriers, the technology providers and the customers are the main players in the mobile advertising value chain. The advertisers are of crucial importance in this value chain. The revenue flow through the value chain stems mainly from payments of the advertisers to the m-advertising companies for implementation of the m-advertising campaign. In traditional advertising industry, revenues are mainly generated from commissions and fees paid by advertisers, but in most cases of m-advertising, those means are not included. Media owners also have an important role in this value chain. The databases of permission based mobile numbers are owned either by media owners or advertising brands and these permission based databases are prerequisites for delivering m-advertising in the area of the European Union (EU). Again, the network operators have an important role in the value chain, because they control the distribution channel. Modern and innovative technology sticks the elements of the value chain together. There must not be any problem in integration of m-advertising technology into the telecommunications ecosystem (e.g. location based services) and m-advertising must always cope with an increasing set of different protocols (SMS, MMS, WAP, J2ME, etc.), a wide variety of handsets, high capacities and availability. However, on top of all the above mentioned critical success factors, it should be well understood that customers' acceptance is the main factor for the success of m-advertising. (Leppäniemi *et al* 2004).

As different authors mention, mobile advertising can be seen to be completely different from traditional advertising (Choi *et al* 1997, Tähtinen and Salo 2004).Being primarily targeted at mass audiences, traditional advertising relies mostly on one-way mass communication. On the other hand m-advertising efficiently identifies the receiver, i.e. the user of the mobile device, and so it can be, at a low cost, tailored to individual customers. Therefore, m-advertising is a unique form of advertising, because it allows personal interaction with individuals (Frontiers 2004). However, Leppäniemi *et al* (2004) indicates that, from a marketing perspective, there have been an extremely low number of researches on this phenomenon.

There has been a lot of glory and attention paid to mobile-advertising, but only few academicians have made research on its importance or critical factors that determine its

success. This is a result of the fact that m-marketing and advertising are very new concepts and they are evolving gradually from basic text messaging (SMS) to more interactive and intelligent marketing communication channels (e.g., MMS). Both academic and industrial publications include a number of definitions for the concept “mobile advertising”, but there is not a commonly accepted definition either. Besides, some definitions of mobile marketing and mobile advertising are overlapping. Therefore, in order not to confuse two of those terms, it is important to clarify the concepts of mobile advertising and mobile marketing. The following section deals the positioning of these two concepts based on a comprehensive literature survey.

1.4 Positioning of Mobile Marketing and Mobile Advertising

Most consumers can bring wireless devices to wherever they go and they use them frequently throughout the day, thus, as compared to its marketing media predecessors, mobile marketing is more personal. Mobile devices, unlike PCs, are usually owned by one person and are seldom shared, as a result it is possible to target and customize marketing messages for a particular user with a high level of confidence that it will reach its target. Therefore, capability of commanding the immediate attention of the consumer, mobile marketing is an extremely personalized communications medium.

Marketers have been developing campaigns that support content; creating sponsorships and marketing programs that lead to consumer interaction with the brand through games and interactive entertainment applications; initiating opt-in marketing programs by which consumers get valuable information and promotions on products and services that related to their lives.

The recent evolution of telecommunications technology considered, m-advertising has gained a rather impressive potential to become an ever-critical element of the marketing mix in the coming years.

As already mentioned, although m-advertising has been a lot of attention, there have been only a few academic researchers to provide useful insights into this area (SkyGo 2001). The fact that the m-advertising market is in its very beginning may lead to this scarcity of academic research.

According to the definition by the Mobile Marketing Association (2003), the leading global association working to energize the development of mobile marketing and its associated technology, m-marketing is the use of the mobile medium as a communications and entertainment channel between a brand and an end-user. However, being one of the largest professional marketing associations, even the American Marketing Association (2003) is yet to provide a formal definition for "mobile or wireless advertising".

Mobile marketing enables advertisers spontaneous, direct, interactive and/or targeted communications, and it is the only personal channel to do this. As the definition of the IMAP supports, mobile marketing can basically be evaluated as the process of planning and execution conception, pricing, promotion, and distribution of products and services through the mobile channel (IMAP 2003).

The IMAP (2003) defines mobile advertising as "the business of encouraging people to buy products and services using the mobile channel as medium to deliver the advertisement message". The process of buying is overemphasized according to this definition, while the substance of the advertising concept is not fully elaborated. Thereby, emphasis should be placed on the effect of the message in the traditional sense of advertising. The American Marketing Association (2003) defines advertising as follows: "The placement of announcements and persuasive messages in time or space purchased in any of the mass media by business firms, nonprofit organizations, government agencies, and individuals who seek to inform and/or persuade members of a particular target market or audience about their products, services, organizations, or ideas." Moreover, the definition of advertising by the Merriam-Webster Dictionary (2003) is as follows: "Advertising is the action of calling something to the attention of the public especially by paid announcements."

Considering the common characteristics of mobile media, Leppäniemi *et al* (2004) suggests the following definition for mobile advertising: "Any paid message communicated by mobile media with the intent to influence the attitudes, intentions and behavior of those addressed by the commercial messages."

The recent study of Leppäniemi, Sinisalo and Karjaluoto (2006) addresses that regarding the most appropriate way in which this emerging phenomenon should be defined; there is obviously a lack of consensus, while some of conceptualizations above are similar. They mention that, the literature review results in 21 different definitions or meanings of mobile marketing. The analysis found that four major approaches to marketing through the mobile channel are represented by the definitions, collectively. More specifically, it was revealed that implicit or explicit conceptualizations attributed to marketing through the mobile channel have been the following: (1) mobile marketing (e.g. Kalakota and Robinson 2002, MMA 2005, Scharl et al 2005, Facchetti et al 2005, Dickinger et al 2004, Bauer et al 2005); (2) mobile advertising (e.g. Leppäniemi et al 2004, Tähtinen and Salo 2004, Haghirian and Madlberger 2005, De Reyck and Degraeve 2003); (3) wireless marketing (Tsang et al 2004) and/or (4) wireless advertising (Petty 2003, Yunos et al 2003). All these are summarized in Table 1.1 (Leppäniemi et al 2006).

Researchers have not even reached a consensus on whether the focus should be on internet-based advertising in the wireless devices such as PDA(Personal Digital Assistant) or on the telecom sector (advertisements delivered via telecom networks). In the US, the focus of the researchers has mainly been on the wireless internet-based advertising, whereas in Europe m-advertising has only been evaluated as SMS and MMS based telecommunication (Add2Phone 2003, Enpocket 2002).

Table 1.1: Definitions of mobile marketing or mobile advertising (adopted from source Leppäniemi et al 2006)

Author(s)	Concept	Definition
Kalakota and Robinson(2002)	Mobile marketing	"The distribution of any kind of message or promotion that adds value to the customer while enhancing revenue for the firm".
Rettie et al. (2005)	Mobile marketing	"…marketing activities that deliver advertisements to mobile devices".
MMA Code of Conduct (2005)	Mobile marketing	"Mobile marketing is any form of marketing, advertising or sales promotion activity aimed at consumers and conducted over a mobile channel".
Scharl et al. (2005)	Mobile marketing	"Using a wireless medium to provide consumers with time and location sensitive personalized information that promotes goods, services and ideas, thereby benefiting all stakeholders".
Sullivan Mort and Brennan (2002)	Mobile marketing	"The application of marketing to the mobile environment of smart phones, mobile phones, personal digital assistants, and telematics".
Facchetti et al. (2005)	Mobile marketing	"…any paid form impersonal presentation and promotion of goods, services, ideas by well-identified promoter (Kotler et al.2002) using the "the wireless" as delivery channel".
Dickinger et al. (2004)	Mobile marketing	"Using interactive wireless media to provide customers with time and location sensitive, personalized information that promotes goods, services and ideas, thereby generating value for all stakeholders".
Hainonen and Strandvik (2003)	Mobile marketing	"…use of SMS and MMS as marketing media in push campaigns".
Kavassalis et al. (2003)	Mobile marketing	"…something technologically simple that uses the mobile network as a complementary distribution channel for delivering old-fashioned commercial information and interactive promotional advertising".
Bauer et al.(2005)	Mobile marketing	"…using the mobile phone as a means of conveying commercial content to customers".
MMA UK (2005)	Mobile marketing	"Mobile marketing is the use of the mobile medium as a communications and entertainment channel between a brand and end-user.
Class 2005	Mobile marketing	"The use of wireless media as an integrated content delivery, marketing and communications channel".
Lappaniemi et al. (2004)	Mobile advertising	"Any paid message communicated by mobile with the intent to influence the attitudes, intentions and behavior of those addressed by the commercial messages".
Tahtinen and Salo (2004)	Mobile advertising	"…ads sent to and presented on mobile devices,i.e.cellular phones,PDAs, and other handheld devices".
Komulainen et al.(2004)	Mobile advertising	"…advertising using mobile devices as a communications vehicle".
Haghirian and Madlberger (2005)	Mobile advertising	"The usage of interactive wireless media to transmit advertising messages to consumers in form of time and location sensitive, personalized information with the overall goal to promote goods

Table 1.1.(cont'd).

		and services.
De Reyck and Degraeve(2003)	Mobile advertising	"…advertising via mobile phones".
Petty (2003)	Wireless advertising messaging	"…form of advertising…that includes short text messages sent to telephones, personal digital assistants and other wireless devices".
Yunos et al. (2003)	Wireless advertising	"…advertising and marketing activities that deliver ads to mobile devices over a wireless network".
Tsang et al. (2004)	Wireless marketing	"…sending advertising messages to mobile devices through the wireless network".
Brassington and Pettitt (2003)	Wireless marketing	"…the use of text messaging via a mobile telephone as a means of marketing communication".

It seems that concepts of "wireless vs. mobile" have been confused recently and it is necessary to clarify this issue. Wireless does not necessarily mean mobile (Balasubramanian *et al* 2002, Anckar and D'Incau 2002, Varshney and Vetter 2000, Kumar 2004). For instance, a consumer communicating with a Web site from a desktop computer at home, with signals carried over a wireless local area network (WLAN) or over a satellite network, is using wireless but not mobile communication.

When a wireless access is used, mobility can be very limited within the range of the access point. However, in order to achieve true mobility there is a certain need for an underlying mobile network, which implements the mobility across the whole area covered. This fact should be kept in mind when in order to define marketing through the mobile channel. Mobile advertising means use of mobile channel as a medium to send the advertisement messages to mobile devices, on the other hand wireless advertising can be assessed as a wireless internet and online advertising in the first place (Paavilainen 2002, Barnes 2002).

Based on this distinction, Leppäniemi *et al* (2006) propose that the best conceptual foundation for the phenomenon is provided by the mobile as a concept, due to the fact that particularly the mobile has an inclusive nature and it represents the space in which the value of mobile marketing communications evolves. Therefore, defining mobile marketing as a concept and mobile advertising as its subset are the most appropriate for this evolving phenomenon. Authors have considered that the mobile is, mainly, a medium for marketing

communications, and subsequently they came up with the following conceptualization building on the insights: “Mobile marketing is the use of the mobile medium as a means of marketing communications”.

Briefly, in most of the covered studies the term “mobile marketing” was utilized to refer to the same phenomenon as “mobile advertising”. Moreover, their descriptions do not correspond with the definition of the term “marketing”.

Therefore, to use the term “mobile marketing” to refer to personalized, interactive, dialogue-oriented commercial communication via mobile devices does not provide researchers and/or practitioners with a clear understanding of the phenomenon. More likely, it may be easily mistaken with terms like mobile commerce, which means electronic commerce transactions carried out via mobile devices (see Dholakia and Dholakia 2002, Kalakota and Winston 1996) or mobile business, which refers to an even broader phenomenon also including internal business processes and transactions partially operated in the off-line world (Zobel 2001).

Mobile advertising, as it is used, does not fully cover the whole phenomenon. On the other hand, in spite of the fact that marketing is a broader concept than advertising, when it is used to describe the phenomenon of our focus, it actually covers more than its range.

Due to the fact that terms lacking an explicit definition are being used and different terms seem to refer to the same phenomenon, another study was issued by Tähtinen in 2005 for a better conceptualization and clarification.

In Tähtinen’s study, Kalakota and Robinson’s (2002) description of mobile marketing which is “the distribution of any kind of message or promotion that adds value to the customer while enhancing revenue for the firm” is matched with the 4th P, namely marketing communications from a traditional marketing management perspective. Additionally, as compared to what the use of mobile phones enables marketers to do, it is mentioned that advertising as a one-way communication from the marketer to the consumer

seems to be much more restricted. The receiver of the message has options to react by phoning the marketer, sending the company a text message, or clicking herself to the company's web-pages (if fitted to mobile use). Therefore, mobile advertising is much more interactive and personal as compared to traditional advertising.

The problem of mobile advertisement being too small and the mobile marketing being too large is visualized by in Tähtinen (2005) Figure 1.5.

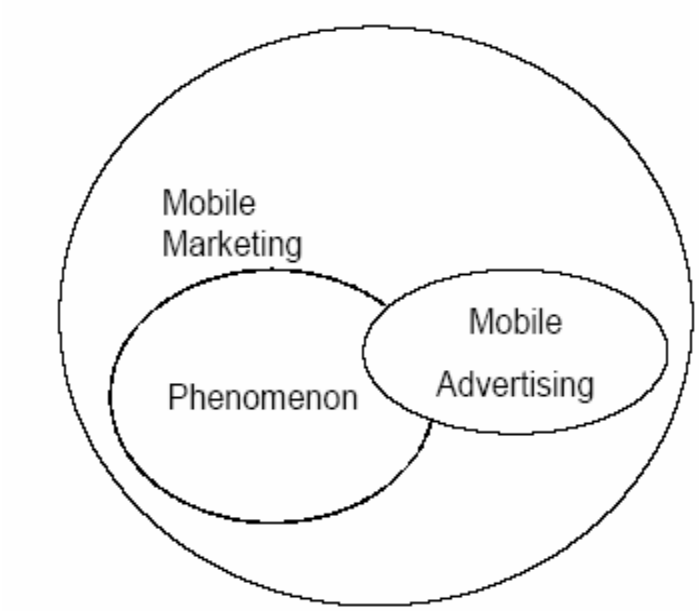


Figure 1.5: The relations between the terms and the phenomenon (Source: Tähtinen 2005).

Consequently, Tähtinen (2005) offers two suggestions: Firstly, to adopt a single term combining several crucial components under a single word, which is mobile-ad communication or secondly, another solution would be to introduce the term "mobile marketing communication", which would make a distinction between mobile forms and any traditional non-mobile forms of marketing communication.

Salo *et al* (2004) also evaluate the term mobile advertising as a part of m-marketing. Figure 1.6 illuminates their positioning of mobile-commerce, mobile marketing and mobile advertising.

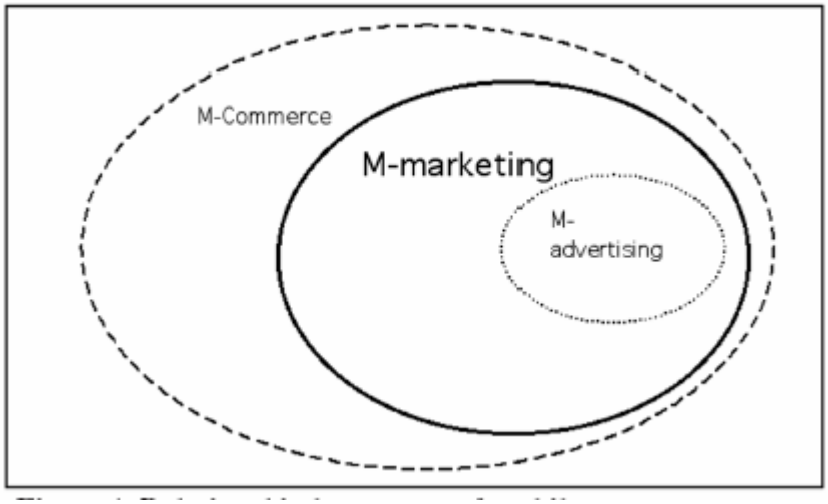


Figure 1.6: Relationships between concepts (Source: Salo *et al* 2004)

Figure 1.6 implies that, m-marketing includes both sending mobile ads and distribution of mobile services (m-services), besides commerce over mobile channels. Bitner, Brown and Meuter indicate that the combination of rapidly developing mobile technology—i.e., processing and transmitting capacity—and high penetration of mobile devices presents an enormous potential for delivery of m-services via mobile devices (Bitner *et al* 2000). As Tähtinen and Salo mentions, m-services cover a vast variety of types, including the capacity to send and receive text, pictures, music, and video clips, to trade stock, to book airline or movie tickets online, and to receive personalized shopping alerts (Tähtinen and Salo 2004).

The fact that m-marketing has a specific context provide brands with the opportunity to send targeted and personalized m-services and mobile advertisements (m-ads) to consumers related with their interest areas, while they move around.

Therefore, Turban *et al* have suggested an alternative term that is location based commerce for m-commerce (Turban *et al* 2002). By means of m-marketing, unique, personalized, and customized content can be sent (Turban et al 2002), and also consumers can interact with

the sender of the message and they can be stimulated to purchase either the sent content or the advertised good itself. Integration of mobile payment mechanisms will enable customers directly make purchases from their handhelds and make payments by their phone bills.

M-marketing which allows for one-to-one, mass communication, and many-to-many models, includes interactivity and leaves traditional communication behind, like other forms of electronic marketing (Barwise *et al* 2002, Hoffman and Novak 1996, Jee and Lee 2002).

Pieters and Wedel conclude that, because of the special characteristics, m-marketing can and should be used to deliver m-services and m-ads that are different from the traditional advertisements employed in other media (Pieters and Wedel 2004).

Additionally, the type of content that permission based marketing should offer to the consumer is affected by the special features of m-marketing in terms of to be perceived as valuable and/or entertaining.

Therefore, as research reports support, it is not surprising that m-advertising is forecasted to become the second largest form of m-commerce by the year 2005, reaching more than US $6 billion in Europe alone (Durlacher, 2000), globally up to US $16- 23 billion (IMAP 2002; Ovum 2002), and to US $17.2 billion by 2007 (Nokia 2003).

Consequently, the positive aspects of Tahtinen's second alternative which is depending on the goal and use of "mobile marketing communication", it may serve the same purpose as advertising, personal selling, public relations, customer relationship management, and sales promotion, have been considered and thus, in this study, m-advertising refers to all marketing communication activities over mobile as a subset of mobile marketing campaigns. For example, when unknown masses are targeted, the term mobile advertising would fit, and when also directed towards loyal customers to increase their level of

relationship with the marketer, it could be labeled as mobile CRM, but still the communication with the customer can be achieved through mobile advertising campaigns.

Having considered the above mentioned conflicts and overlaps, mobile marketing and mobile advertising are used interchangeably in this study, in accordance with the use case.

1.5 Positioning of Mobile Marketing with other Marketing Communication Channels

The growing number of marketing channels and rapid improvements in technology-based systems, especially those about digital channels (e.g. Internet and mobile) are resulting in fundamental changes in the interaction between customers and companies. New channel opportunities, such as the Internet and other direct channels must be developed by product and service producers and providers in order for them to remain competitive. As Becker shows, an increasing body of evidence supports the belief that the there is a decrease in the effectiveness of traditional retail, broadcast, and media channels in the face of the enormous fragmentation of traditional channels (Becker 2005b).

At present, many marketing channels are used by both customers and companies and these channels have different purposes, constraints, and different influencing external environment, and ultimately these have different outcomes for those engaged in.

Becker explains that, for decades, marketers have been living with low response rates of direct marketing programs, and they had to rely on indirect proxy measures like reach, impressions, brand and ad recognition and retention to gauge the effectiveness of their traditional mass-market media advertising and promotion campaigns (Becker 2005b).

The trend toward using multiple marketing channels has no more seen as an exception but it has become the rule (Frasier 1999) and is recognized as a crucial task to especially select

channels for new and improved products in consumer and business markets (Rangan *et al* 1992).

Direct (e.g. Dell direct) or indirect channels (e.g. food retailing) are not mere channel choices. Moriarty and Moran assert that, with a mixture of the above mentioned channels, various combinations of channels including a hybrid channel or a dual channel also exist (Moriarty and Moran 1990). Besides physical delivery channels the Internet provides an additional channel. As Rayport and Sviokla mention, this channel is sometimes called a virtual channel (Rayport and Sviokla 1995). Furthermore, mobile devices over mobile network provide brands with a more novel channel solution (Leppäniemi *et al* 2004, Salo and Tähtinen 2005).

On the other hand, there is still an observed domination of traditional advertising channels (Althans 1993) like television, radio and print over the advertising market. Being well established parts of the media mix they are applied by enterprises to communicate with existing and potential customers. The fundamental problems with the classical mass media, as Figge and Schrott point out, stem from limitations related to interaction, allocation and measuring efficiency (Figge and Schrott 2003).

Being firstly a one-way communication traditional mass media does not enable a direct response from and interaction with the recipient. Therefore, with mass media advertising, it is impossible to get into an immediate dialog with the potential customer. Furthermore, marketers can not specifically focus on the target customer group. Only feasible media choice for marketers is the one where the target customer group is possibly making up a large portion of the receivers. This leads to high spreading losses and it often reminds the quotation of Lord Leverhulme: “I know half the money I spend on advertising is wasted, but I can never find out which half” (Trommsdorff and Becker, 2001).

Finally, there is no direct mechanism existining to gauge the efficiency of advertising messages distributed by traditional mass media exists and it takes much effort to provide advertising companies with data about their campaigns (IP Deutschland 2002).

On the other hand, the introduction of new media channels has resulted in an accelerated decline in network TV audiences, newspaper and magazine circulation, and radio listeners (Anderson 2005).

As already mentioned in the Introduction part, the mobile channel as a marketing medium is personal, interactive, time, and location independent, distinguishes it from traditional channels like TV, radio, and newspapers. Figge and Schrott note that cost is another important factor in the comparison between different advertising media (Figge and Schrott 2003).

There is a rapid growth in the use of the mobile telephony in direct marketing and mainly the SMS marketing with a number of creative marketing applications. Possessing qualities of intrusiveness, interactivity, immediacy and targeting, this digital media enables personalization of content and context of the message, thus, as Becker indicates, it is considered to potentially improve the likelihood to reach consumers (Becker 2005a, Becker 2005b).

Triki, Piquet and Trabelsi's study (2004) demonstrates promised advantages of the use of mobile phones in direct marketing. A comparison table summarizing the functionalities of direct mail, telephone, e-mail and SMS based direct marketing is provided in the study (Table 1.2).

Table 1.2: Comparison of direct marketing techniques (Source: Triki *et al* 2004).

	Direct Mail	**Telephone**	**E-mail**	**SMS**
Reach	All households	Most households	Internet users	Mobile users
Response rate	Approx 2%	10%-20%	3,5%-15%	Not known
Cost	Medium $1	High $10	Very low 5c	Low 10c
Time to organize	Slowest-materials, post	Slow-scripting	Quick	Quick

Table 1.2.(cont'd)

		&briefing		
List availability	Very good	Good	Limited	Very Limited
Response Time	Slow	Quick	Quick	Quickest
Materials	Any:text,visuals, objects	Voice only	Text, visuals	Short text only
Personalization	Yes	One to one	Yes	Yes
Consistency	Consistent	Variable	Consistent	Consistent
Persuasive Impact	Medium	High	Low	Low
Interactivity	No	Yes	Yes	Yes
Access	Home	Home	Home/work	Everywhere
Intrusive	Low	High	Medium	Medium-high
Immediacy	No	No	No	Yes
Targetable by location	No	No	No	Yes

Zoller proposes three different ways in which mobile marketing can be used: customer acquisition, customer relationship management and driving sales (Zoller 2004). However, the mobile medium requires other media in order to be successful. When considering a mobile channel, the overall marketing strategy has to incorporate it to overcome the limitations of chosen channel and unleash the potential of mobile technology.

Basically, this incorporation is achieved through either with evaluating different options to start a new series of campaigns based on the mobile channel or integrating the mobile channel to existing marketing channels. A study in FirstPartner has proved that the second option, where the mobile channel is integrated to existing marketing campaigns using other media is the most effective and efficient option (FirstPartner 2003). Mobile campaigns are complimenting elements of other media, such as television, print and Internet, and vice versa.

Carat Interactive (2002) considers that the mobile phone is not appropriate for stand-alone campaigns. Instead, it is advised to be utilized to extend the presence of a company into an additional channel, because it has limitations regarding screen size, sound and handling. Actually, introduction of multimedia enabled, multifunctional personal devices, PDAs and

handsets has started to change this. However, as Enders and Jelassi (2000) explain it is still valuable to integrate mobile marketing campaigns into other marketing communication channels.

By this way, the mobile phone acts as the natural glue between other media types as a result of its ubiquitous nature: it is accessible and turned on when watching TV, looking at a billboard on the subway, buying groceries at the supermarket or listening to the radio. All the campaigns mentioned above benefit from this cross-linking of different media types, positively affecting the unique strengths of each. Other media types are not the only ones that benefit from the integration of the mobile in multi-channel advertising campaigns: mobile campaigns are provided with a higher legitimacy by tangible support mechanisms from other media types that have been around for years—such as a flyer or an in-store promotion—, because these mechanisms have a physical component (Enders and Jelassi 2000). Take examples of a TV advertisement that is shown on different channels and broadcasting times, or a billboard advertisement presented in different locations that asks viewers to participate in an SMS contest. When actual response rates in different channels or locations are measured, it becomes possible to control placement more effectively than via traditional indirect measurements.

To sum up, as the number of media types has increased, it has become gradually more challenging for marketing managers to find appropriate strategies to target potential customers with their messages. Initially, in the past it was possible to catch a large portion of society by placing advertisements with the main TV networks, but the rise of private channels has resulted in a high level of fragmentation, and access to consumers has become complicated. There can be observed similar fragmentation in other mass-media types such as print or radio. As a result, Davenport and Beck point out it has become very difficult for advertisers to get time and attention from their audience (Davenport and Beck 2000). Despite the fact that mobile multimedia advertising has very promising features as compared to the traditional mass media, it is highly probable that mobile multimedia advertising will not totally substitute but supplement classic media channels in terms of creating and maintaining balanced media mix.

CHAPTER 2:

POTENTIAL OF MOBILE ADVERTISING AND CONCEPTUAL ANALYSIS OF EFFECTING ANTECEDENTS

2. POTENTIAL OF MOBILE ADVERTISING AND CONCEPTUAL ANALYSIS OF EFFECTING ANTECEDENTS

Actively searching for a consistent audience, advertisers have started to allocate more money to mobile advertising, as some experiences in the area have proved to be beneficial.

Clearly, the term "mobile advertising" referred in this study does not mean advertisements that move from place to place—i.e., buses, trucks, trains, trams, and taxis (Goldsborough 1995, Hume 1988).

Advertising sent through text messages, banner advertising on Web sites aimed at cell phone users, ads that precede or follow a video clip, and wireless mobile game advertising that is either sponsored or placed within a game are all elements of the mobile ad market (Shabelman 2007). Shabelman also reports that according to the information provided by Informa Telecoms & Media, global mobile ad spending in 2007 is projected to top $1.5 billion, up 42% from $871 million in 2006. The research firm based on the U.K. forecast, mobile advertising to rise to $11.4 billion, by 2001.

In addition to the fact that mobile is a highly personalized medium, its unique features like location and targeted content and applications make it more attractive in promoting brands.

Linda Barrabee asserts that the spending in the context of traditional media such as TV and newspapers is certainly inefficient and disproportionate. However, as illustrated in Figure 2.1, there are strong growth opportunities in emerging areas such as the internet, games and mobile (Barrabee 2006a).

Time-shifting attribute increases the attractiveness of the always-on and always-with-you features of the mobile. When combined with personalized content, context and applications, this increase positively affects the demand, so advertisers' job becomes more complicated.

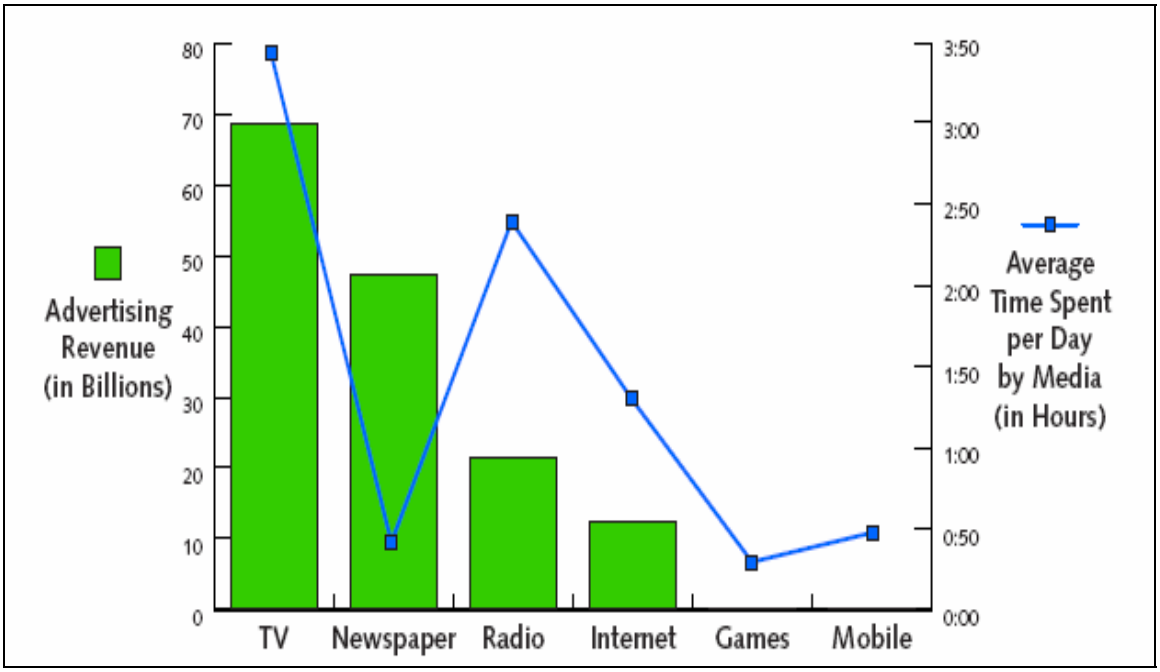


Figure 2.1: Advertising and time spent by medium (Source: Barrabee 2006a).

Mobile has become a very interesting topic for advertisers, but it is new and it is difficult to gauge its effectiveness, since there is not much transparency or metrics available to gauge its effectiveness. Also, there are not agreed-upon metrics to measure its effectiveness. Additionally, commercial relationships and supporting technology are still not mature.

Besides operators are observed to mostly deal with fundamental issues such as business model, factors that affect the customer response, campaign design etc.It needs more evaluation, since the wireless market is sort of saturated. It is a very difficult task for the carriers to gain new customers, and also they have to strive for increasing customer retention, which means they should keep their current customers satisfied and not irritate them.

However, decrease in voice revenues is proven to be problematic for mobile operators (carriers), and their investments in next generation networks must become profitable. Carriers need both to develop consumer transactions/spending, and to build new business models because of the introduction of more costly multimedia services.

Messaging (text and multimedia messaging service), mobile internet/WAP, mobile video, mobile search and in downloads such as games and other applications and content downloads are multiple ways of the manifestation of mobile advertising. Also, advertising and the interaction of consumers with brands become possible by means of multiple ways, namely passive and pull.

Since customers pay for their actions on their mobile phones, the appropriate delivery mechanisms for mobile content are considered for consumers. An unpleasant experience can certainly cause the loss of a customer. On the other hand, correct application of the personalization of mobile can pave the way to a powerful advertising application.

2.1 Market Trends

Person-to-person (P2P) text messaging and premium content are main sources of mobile data revenue. B2C market can be a new expansion area for operators. Mobile advertising and marketing, on the other hand, are at their very beginning, but, as Yunus points out, their revenue and branding potential have been started to be appreciated by Asian operators (Yunus 2005).

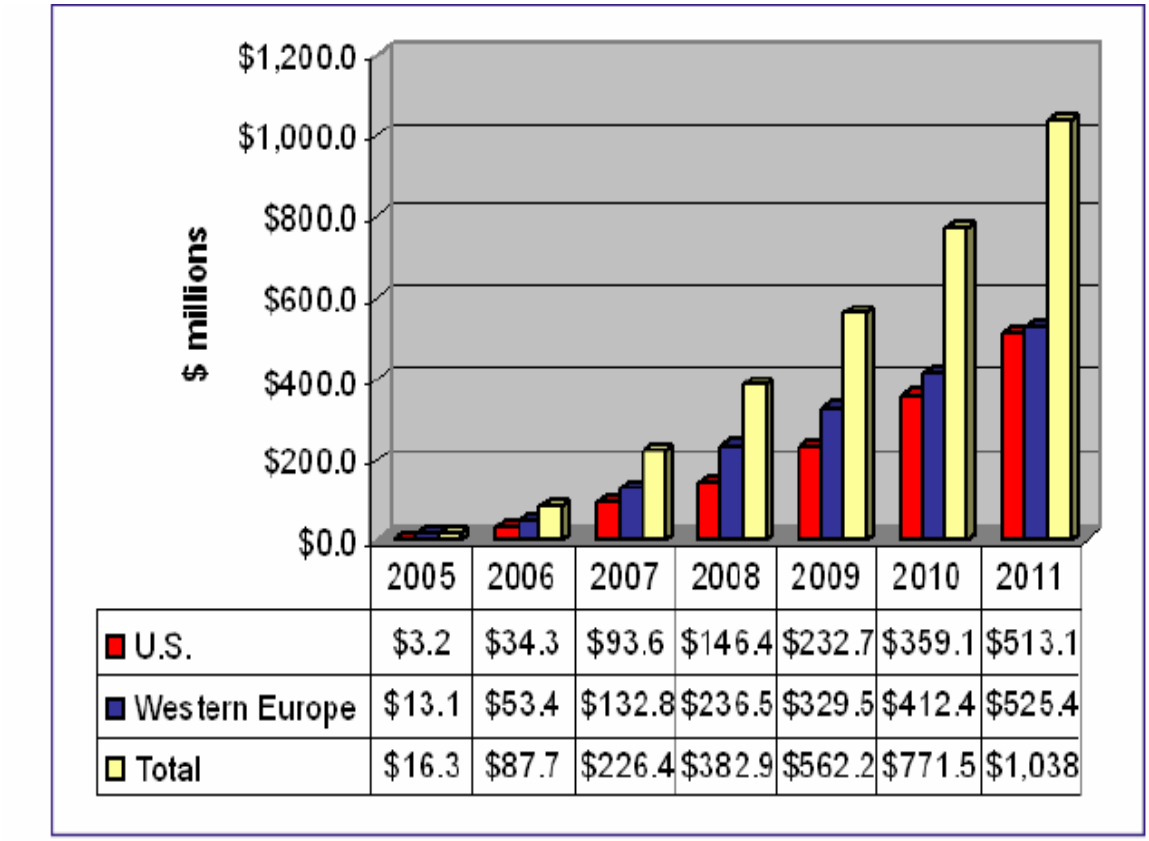
Mobile advertising has not become a mature market yet, and Barrabee mentions that most activity takes place in Asia (Barrabee 2006). Without doubt, data communication and mobile marketing and advertising are pioneered by the Japanese. Japanese people take advantage of the small form of the mobile phone to communicate and access to the Internet, because of the lack of space. As a result, Japan is not good at the home PC ownership rate as compared to other developed countries. The population of Japan is 120 million, and over 80 million people use data services on their mobile phones. Japanese mobile operators have successfully foreseen the opportunities beyond voice communication. When KDDI launched 3G services in 2002, it was very early for European and American operators. Visiongain forecasts that 2006 Japanese mobile marketing and advertising expenditures will be $374 million and it is estimated to rise to $657.5 million in 2009. South Korea is

another Asian country which has advanced in terms of adopting mobile technology and offering mobile marketing and advertising. Both in Japan and in South Korea, mobile phones with satellite-delivered television have been offered for more than a year. SK Telecom, which is the largest wireless operator in South Korea, has made a partnership agreement with Korean mobile ad agency AirCROSS (Visiongain 2006).

Barrabee forecasts that in 2006 and later on, Asian operators will start to lose their dominance in mobile advertising as European companies develop and the US companies will follow after about a year. Barrabee expects a parallel growth in total advertising spending with the total economic growth in the US and to become $292 billion in 2006 (Barrabee 2006a).

As of January 2006, there are 203 million mobile phone users in the U.S, and 55 million of them are aged fewer than 20. M:Metrics reports that about 40 million U.S. mobile-phone subscribers have multimedia phones that support watching TV. There is a male dominance in this subscriber group and they are mostly aged between 18 and 34. It is argued that Americans are too much worried about privacy and spam issues, so, mobile marketing opportunities have not been fully exploited in the US. On the other hand, mobile marketing service providers blame the lack of technology standards and interoperability problems for the late development of the market. In the UK, web-browsing and MMS video are becoming popular and SMS is used heavily. Young people aged fewer than 25 are the dominant users of SMS like North America, but SMS usage is substantial up to age 35 and it includes B2B use. In the 17 countries of Western Europe, 3G enabled mobile phones are used by 6% of subscribers, which makes 17 million people. Germany and the UK have advanced in mobile marketing and advertising and they are the best in Europe. Also, Spain has made considerable improvements. France lags behind, and this is attributed to greater regulation and lower penetration of mobile phones in France (Visiongain 2006). There will be a slow shift in the market from messaging to more expensive and sophisticated advertising, and it is expected that global investment in advertising will surpass those for marketing (Figure 2.2).

Forecast figures of VisionGain show that total investment in mobile advertising will grow at a CAGR(Compound Annual Growth Rate) of 99.8% from 2005 and 2011. CAGR growth will be faster in the US (133.1%) than in Europe (85.0%). However, investment will be slightly lower in the US with $513.1m as compared to Europe's $525.4m. The growth in total mobile marketing investment will be a CAGR of 21.3% from 2005 and 2011. Again, CAGR growth will be higher in the US than Europe with figures of 23.1% and 19.9%, respectively. As it is the case in advertising, there will be more investment in Europe ($408.7m) than the US ($351.4m) (VisionGain 2006).



	2005	2006	2007	2008	2009	2010	2011
U.S.	$3.2	$34.3	$93.6	$146.4	$232.7	$359.1	$513.1
Western Europe	$13.1	$53.4	$132.8	$236.5	$329.5	$412.4	$525.4
Total	$16.3	$87.7	$226.4	$382.9	$562.2	$771.5	$1,038

Figure 2.2: Global mobile advertising investment by region, 2005-2011(Source:Visiongain 2006).

Mobile phone was used for only voice communication in its early phases, but lately it has become "the third screen" after the TV and the personal computer, since people spend a lot

of time staring at these objects to obtain information, entertainment, and a general feeling of connectedness. The screen of the mobile phone is much smaller than the TV and the PC, but the mobile phone can combine features of both in a compact form.

Marketers have been using basic text messaging for marketing purposes for a decade; however, technological improvements provide them with greater opportunities such as rich media. In addition to SMS, MMS which utilizes simple graphics and sound, WAP mobile Internet, WAP Push, and streaming video enabled by 3G services are all available for marketers. For the first time, video advertising on mobile phones is feasible by means of the 3G capability.

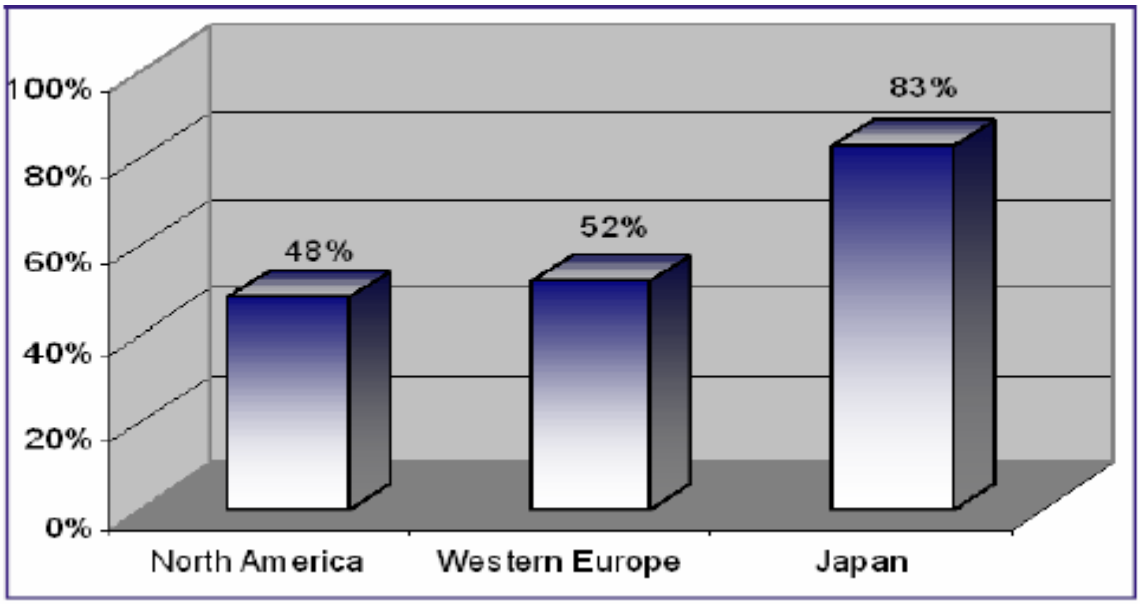


Figure 2.3: Penetration of Multimedia Enabled Handsets by region,2005 (Source: VisionGain 2006).

The summary of the penetration of multimedia enabled handsets by region is presented in Figure 2.3. Improved capabilities of mobile handsets directly affect the development of mobile advertising, i.e. mobile TV and video advertising.

However, since high-end handsets are relatively expensive, mobile phone users are motivated to buy a new model only if their mobile operators introduce new content and services that they cannot reach via their existing phones. Multi-media content such as photography, games, and streaming video initiate people in developed countries to replace their mobile phones (VisionGain 2006).

In addition to the new content and services, rich media marketing messages bring about new ways for brands, publishers and entertainment companies to reach out to consumers.

New technology and services are beneficial for also mobile operators, because price decreases lead to a decline in the ARPU (average revenue per user) from voice traffic, and data services are an alternative source of revenue. Actually, the share of data services in overall revenue is increasing rapidly, especially in Europe. Data revenues constitute 20% to 30% of total revenues in Europe, and still basic SMS accounts for the 95% portion of the data. 3G networks allow the quality transmission of multi-media services are on the agenda of mobile operators and they have invested billions of dollars to it. In order to recoup these investments, operators need subscribers to buy 3G services. Currently, 6% of subscribers in the 17 countries of Western Europe, which makes 17 million people, have 3G enabled mobile phones (VisionGain 2006).

Mobile operators have not been in need for revenue share since their environment was self-contained. However, value added data services have gained importance in the market and operators started to rely on third parties which provide content such as ringtones, games, music, and video. In the beginning, operators were the strong side in the relationship with 3rd party companies, because operators were the only agents for content providers to access to subscribers. At present, however, entities such as record labels, console game developers, and broadcasters which provide popular content take more revenue share from operators, because there is an increasing demand for music, games, and TV on a mobile handset. A foregoing example of pressures that face operators is Broadcast Mobile TV as illustrated in the Figure 2.4. A usual subscriber is expected to spend no more than US$10 per month for mobile TV. In this situation, the operator which has to provide content from

providers such as TV channels and movie studios may face slim and nonexistent margins (Holland 2007).

Considering some of the problems mobile operators have been experiencing, mobile advertising may offer some relief and solution. Mobile advertising may create a new and beneficial revenue stream and, as a result, subscribers may access to richer media by paying less, and also it may cover the cost of content purchased by content providers.

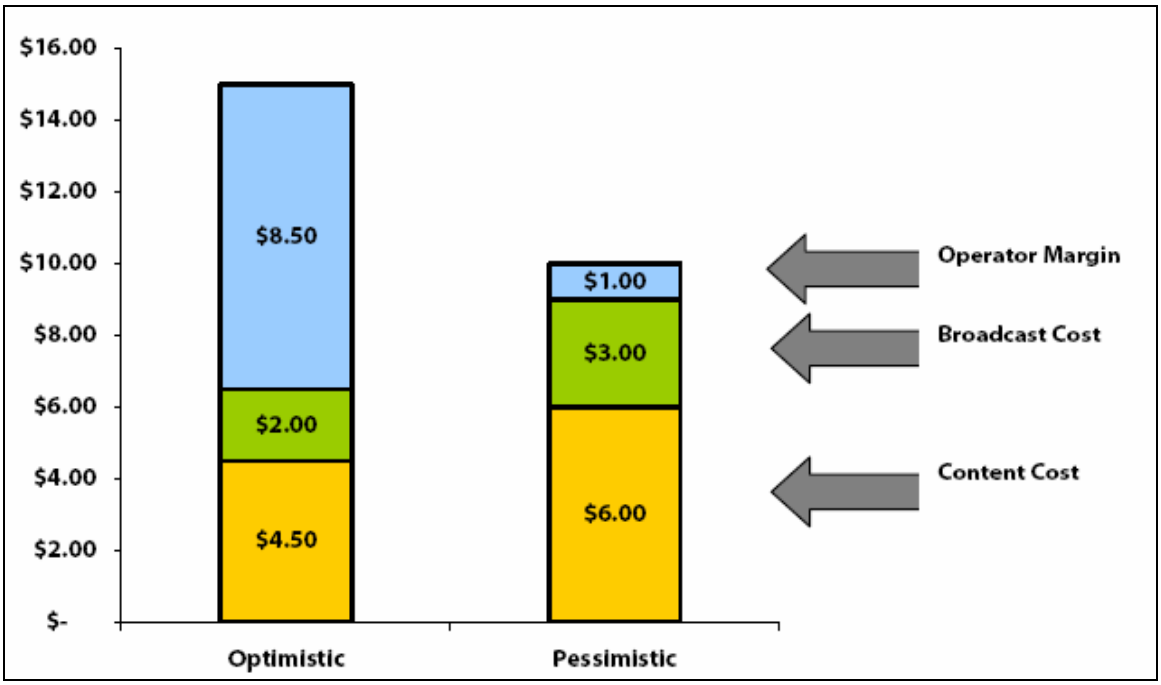


Figure 2.4: Operator margin scenarios for broadcast mobile TV (Source: Holland 2007).

Mobile advertising offers a great potential but, for many years, there has been very few results achieved by wireless technology vendors and some operators. Two major reasons have been making mobile network operators and advertisers reluctant to launch considerable campaigns: there is not an agreement on whether persuading a consumer to buy a particular product is effective or not, and there is a fear from negative reaction of consumers who might think the mobile advertising content is spam. The mobile advertising

concept was always important, but its real life applications were not so much attractive. However, Lonergan indicates that, according to Vodafone, global advertising industry is an industry of £226 billion (US $418 billion), and mobile advertising is in the agenda of Vodafone to capture a share from this industry (Lonergan 2006).

The fact that how Vodafone will gain this share remains ambiguous. It might offer following examples as solutions:

- Pushing SMS/MMS adverts or alerts based on a customer's expressed preferences or location,
- Offering advertising space on the mobile phone's idle screen or on the Vodafone live! portal, with a click-through capability to the advertiser's own mobile portal,
- Inserting adverts in mobile TV programming,
- Exclusive joint-marketing initiatives with major entertainment companies, for example, to market the availability of an artist's new record release exclusively for download on the Vodafone live! Portal.

The examples above are not just theoretical; some of them have been practiced before. The partnership between Vodafone and Google for mobile search capabilities is a prominent example. However, advertisers are not expected to invest in mobile advertising unless they see a potential increase in sales. Thus, operators' duty is to show mobile channel's opportunities by innovative and alternative models in order to convince advertisers. An example from the US demonstrates this kind of an initiation (Lonergan 2006, Yankee 2006).

Virgin Mobile launched a service called Sugar Mama, on June 14, 2006. Subscribers to this service are sent video- and text-based advertisements—like a mini survey, and the ones who view and respond to them earn free voice minutes, as a result. In contrast to the common view, this service is more than a mobile advertising campaign. It is rather a well-targeted, real-time mobile focus group that compensates survey respondents by subsidizing

voice minutes. The discussion on Yankee Group Decision Note named “A Virgin Idea: Airtime for Adtime” concludes that Sugar Mama service is a pioneering example of mobile advertising rather than actual mobile advertising. It is also concluded that Sugar Mama initiates an inevitable strategy for service providers who need both to increase their overall revenue and remain competitive on prices (Yankee 2006).

Large amounts of investments in mobile advertising by consumer brands seem to be a future phenomenon, since a high level of consumer acceptance is needed. Without these large investments, assertions of Vodafone and other operators that they can capture a significant share of the global advertising business should be treated with a healthy degree of skepticism.

Today, in a multimedia 3G environment, mobile marketing and advertising campaigns are becoming more complicated than simple SMS campaigns, so major brand will outsource these activities.

Consequently, there are opportunities for existing market players. Mobile operators do not have direct experience with advertising agencies and on the other hand, agencies, especially European ones, lack expertise in mobile advertising. Aggregators and mobile marketing specialists that act as intermediaries between agencies and operators may introduce new services to bridge the gap between the two.On the other hand, the year 2007 is expected to bring about consolidation in the sector. The functions across the mobile value chain such as marketing/media, applications, platforms and access will be consolidated and more "one stop-shops" will emerge, as boutique firms are bought-up (Yankee 2006).

Moreover, according to the forecast of Visiongain, target market for mobile marketing and advertising in Europe and Asia will change, as average age of mobile phone users will exceed 35. As a result, mobile advertisers will target an older population and they will advertise more expensive goods and services (VisionGain 2006).

New types of mobile advertising applications may be on the way. The mobile search engine, which is the last component of a fully functioning mobile Internet solution, is an example. Operators have restricted their customers within branded portals, but that model cannot be sustained any more. Search engine providers such as Yahoo!, AOL and Google are expanding their actions to the mobile channel (Yahoo Press Release, 2006). Actually, there is a great opportunity for mobile advertising in contextual advertising based on mobile search. Additionally, as information flows from mobile subscribers to mobile brands and advertisers, CRM will be an important process for them. They will need sophisticated analytic tools to manage profiles in their databases.

Mobile ads will be in the same format as the established advertising format of TV, but they will be of shorter duration. Ad-subsidized mobile network operators which offer free airtime to users for pushing advertisements to their handsets will emerge. An example of this in Turkey is two businessmen who applied to TPE (Turkish Patent Institute) and registered advertising sponsored calls for Turkey in February 2007. They declared to the press that they were ready to work with an operator to deploy their solution (Hürriyet 2007).

Xero Mobile, which is an MVNO established by former Gizmondo Europe executives is a European example of an ad-subsidized mobile network operator. Xero is thought to have risen mostly Europe originated $300 million in financing, and according to their prospectus, before their launch in 2006, they will incur a cost of $92m to set up the service. However they expect to earn $1.8bn after three years of operation. There are not many details about Xero's strategy and their decision about subsidizing handset sales remains unclear. Xero Mobile's evolution and achievements will be interesting to follow (Pyramid Research 2006).

Marketing and advertising campaigns have already been made by many of the Fortune 500 companies including Coca-Cola and P&G in Asia and Europe. The Internet will constitute a benchmark for the evolution the mobile advertising. Innovators will make the first move and other brands will measure the customer reaction. Mistakes of first-movers will be

learning exercises for brands. With the exception of the consumer packaged good industry, large companies will not take the first steps and allow smaller companies and entertainment companies to make their move. In case of the Internet, large companies waited too long step in and they became disadvantageous in the competition. Obviously, they will not make the same mistake in the mobile advertising case. With its personal and interactive characteristics, the mobile channel is unique and desirable. Spontaneous, interactive, highly targeted communications between brands, content owners, and the mobile phone user become possible by means of the mobile channel. It provides brands and publishers with customer behavior patterns as well as demographic and psychographic characteristics. At this point, the user's acceptance of mobile advertising becomes an important factor in the overall success of a campaign launch (Pyramid Research 2006).

2.2 Promises and Boundaries of Mobile Advertising

The high global penetration level of mobile communication devices amongst the public is an evident indicator of the great potential of mobile marketing. Additionally, the basic specs of the mobile phone allow for marketing measures not compatible by the use of other media. The reasons that a mobile phone is generally used only by its owner and also most users regard it almost as intimate accessory with a very personal relationship make the mobile market a convenient medium for highly personalized marketing applications.

Personalizing the mobile phone has become a key symbol in people's lives expressing various underlying motivations. Teenage users, for instance, express their individuality by selecting a particular brand, color, size, and display logo and ring tone. Moreover, as a status symbol and a significant part of their daily lives, they carry their mobile phone within reach at all times. Adults, regarding their mobile phones also as a highly personal utensil, individualize it by saving contacts, messages and important dates and also in terms of SIM (Subscriber Identity Module) card, which identifies each mobile phone and its unique user.

As a matter of fact, mobile phone is apparent to be the ideal medium for direct and personalized customer communication with its ease for the advertiser to contact potential

customers at any time and location. That is because mobile phone users typically have their device with them at all times and may leave it on standby for an average of 14 hours a day (Bauer *et al* 2005).

Interactivity is another aspect that highly affects mobile marketing in terms of its active communication nature. Mobile phone is a highly interactive medium that enables the recipient of a message to reply to it immediately through the bi-directional mode of communication. As such, these characteristics of the mobile phone ensure a direct dialogue between the advertiser and the potential customer.

Geo-location technologies such as the Global Positioning System (GPS) or Cell of Origin (COO) enable operators to localize the user and to adapt the marketing impulse to his current position.The utilization of these technologies ensures consumers to be informed about new product offerings at the point-of-sale and result in impulse purchases. However, the present lack of powerful positioning technologies avoids the realization of such push-services. Adversely, location-based pull services are more common, which can only perform by active demand from the customers such that the customer informs the service operator about own current position and as a result receives related offers of close-by product and service providers (e.g., grocery stores, gas stations, or ATMs) (Barnes 2003).

The development of positioning technologies has highlighted a promising future for mobile commerce applications as predicted by many experts; location based services (LBS) are forecasted to become the "killer application" of mobile commerce (Kölmel 2003). The adaptation of a service considering the position of the customer gives the provider the ability to perform a pre-selection of services that would either be the customer's function. As Rao and Minakakis maintains, this provides convenience to the customer to choose the most desired service that will result in more satisfaction and less price sensitivity. (Rao and Minakakis 2003).

The leading features of mobile marketing mentioned as personalization, ubiquity, interactivity and localization secure a significant potential for this innovative commercial

communication with its individualized and dialogue-oriented nature that provides it with a distinguishing aspect from mass communication. Furthermore, the mobile phone can easily enlarge its campaign's domain through viral effects. Viral effects can take place when the original target group of the campaign forwards the advertising message to other recipients outside the target group (Wohlfahrt 2002).

It is inevitable that the advertising message has a greater impact on the receiver when received from a familiar sender rather than the advertiser itself. This assumption has been proven with the perception that messages from neutral senders are more trustworthy than those from a self-interested one. (Kroeber-Riel and Weinberg 2003).

Obviously, viral effects not only help increase the reaching capacity of marketing campaigns but also have a large impact on their effectiveness. These so far mentioned performance features put the mobile marketing forward as a new instrument of commercial communication (Bauer *et al* 2005). A successful advertising campaign, therefore, will create value for the customers and also generate sales increase and actionable data for the sponsoring brand. This outcome enables the operator to benefit from advertising revenues and the potential brand loyalty from the customer brand. The attractiveness of this field can be explained with the fact that when compared to click-through rates of less than 1% for Web-based advertising, average click and call-through rates for wireless devices are 19% and 12%, respectively. In Japan, the click-through figures have further reached up to 33% through well targeted campaigns (Scharl *et al* 2004).

On the other hand, successful advertising brings large rewards, while coming up with even larger risks. If customers perceive a mobile advertising campaign as irrelevant and disruptive they will be irritated. Irritated customers will lead to an increase in customer care calls that incur costs for the operator, and in the end the operator will face a higher level of churn**.** As a result, there will be a little or no affect on sales and sponsoring brands will reallocate their spending elsewhere as they face poor quality metrics. Thus, Holland indicates that it is a challenging task both to maximize the amount of advertising exposures and to minimize the level of subscriber discomfort at the same time (Holland 2007).

The following section presents a summary of the critical success factors, challenges, application types and business models for better understanding of mobile advertising phenomena.

2.2.1 Success Factors and Challenges

Traditional media bring about some difficulties for advertisers. Mobile advertising, on the other hand, offers new business models in which sales are supported by ads while customers do not pay anything. As a result, mobile channel gradually becomes an attractive channel.

Barrabee asserts that following developments are the cause of the increasing interest in mobile channel (Barrabee 2006a):

- Growing consumer awareness and adoption of mobile data services,
- Maturing messaging market,
- . Increased short code activities,
- Erosion of carriers' "walled gardens",
- Improvements in the overall consumer mobile data/internet experience.

The ability to provide customers with one-on-one interaction capabilities as well as the value of the brand by means of a personalized way does offer new revenue sources for carriers, as well as a strong leverage in keeping their customers loyal.

In the US, text messaging alone gives the opportunity for advertisers to reach 206 million consumers, which accounts for 72% of the total population. Barrabee notes that with the steady growth of mobile internet usage—via WAP or HTML browsers— and 2.5/3G handset penetration, there will be greater opportunities for banner ads, interactive links and more innovative mobile multimedia advertising campaigns (Barrabee 2006a).

Farid Yunus lists the advantages of the mobile channel as the following (Yunus 2005):

- Immediacy: Messages are tailored, making them immediately relevant such as a limited time discount offer when a customer enters a shopping mall,
- Personalization: Unlike traditional mass media, messages are individualized for each user based on their customer profile, with minimal incremental cost,
- Interactivity: Customers can respond or immediately purchase products via short messaging service (SMS) or WAP links instead of waiting until they have fixed internet access,
- Virulence: Consumers can immediately forward ads to other users, which create potential viral effects not replicable by other media,
- Responsiveness: The ability to respond immediately results in higher response rates (e.g., SMS campaigns have achieved up to a 70% response rate and WAP click through rates range from 3% to 5%),
- Monitoring ability**:** Counting the number of SMS responses or visitors to a linked site easily evaluates campaign success.
- Lower cost**:** Mobile advertising is much cheaper than traditional media—bulk SMS rates are as low as $0.01 per message or $35 to $50 per thousand WAP impressions.

VisionGain reports that national and local marketers and advertisers have a share of 36% of total US advertising spending ($177.2 billion) in 2005. The mobile channel's immediacy attracts them, and they try to reach their customers through new and potentially more effective ways, rather than traditional ways. As mentioned in VisionGain, both national and local advertisers which are tied to location, could reach mobile consumers who want to be informed about things around (VisionGain 2006).

Mobile advertising can be used as an independent medium, but experiences show that its best use is when it works as a link between traditional channels. In Asia, campaigns in which message delivery is used as a main part of the whole media mix prove to be very successful. Yunus states that this kind of usage creates interaction between outdoor, TV and

print media, and this interaction enables gathering of consumers in specific store locations at designated times of day (Yunus 2005).

VisionGain 2006 report implies that mobile marketing is superior to traditional media and direct mail campaigns in terms of cost savings (Vision Gain 2006):

- Almost 100% of SMS messages are read by phone users when they are received,
- High response rates are experienced in the case of mobile campaigns (up to 20%) as compared to that of traditional call-to-action campaigns (2-4%), and this can be attributed to the novelty of mobile campaigns. Table 2.1 presents comparison of media campaign response rates.

Table 2.1: Comparison of Media Campaign Response Rates (Source: Vision Gain 2006).

	Response Rates	
Standard campaign	2-4%	
Third Screen Media Mobile Campaign	21%	(Dunkin' Donuts)
	Banner Ad Click-through	
Internet	1%	
Mobile phone	4%	

Mobile marketing campaigns result in higher response rates than other direct marketing channels, and this can be attributed to several factors:

- Mobile messaging is viral. Messages are often forwarded,
- Mobile campaigns have a high recall rate,

- Mobile marketing and advertising provides a personalized, quantifiable message or image that is time and location sensitive and provides relevant data about consumer behavior.

According to the traditional meaning of direct marketing, it makes use of a sophisticated and up-to-date database in order to create relationships with customers. Triki notes that the growth of direct marketing is highly correlated with technological developments the change in market conditions (Triki *et al* 2004).

When changes that direct marketing has passed through are considered, it is notable to see how the printed message (mailing, catalogue, flyers …) evolved to the telephone then to the Internet and finally to the mobile. Since mobile telephony has advanced to take new roles to be introduced into direct marketing, we cannot just mention an ordinary way of direct marketing, but rather we can call it "mobile marketing".

There are several factors that put a pressure on this new marketing/advertising channel, such as:

- Economical factors: Saturation of the market of fixed telephony (Desavoye 2002) and the phenomenal growth of the market of the mobiles (Heikkilä 2002, Rice and Katz 2003, Cloarec and Victor 2004),
- Technological factors: Limits of the Internet in terms; of accessibility, of memorizing, security (Henault *et al* 1996, Weil 2000) and "overflow syndrome" of information (Weil 2000, Dandouau 2001). The technological development of the cellular networks, of the wireless infrastructure (GPRS, UMTS, WIFI, etc…) (Heikkilä 2002) and of the services increasingly sophisticated as regards mobile telephony (MMS, Mobile Internet…) (David *et al* 2004),
- Cultural factors: The mobile will be popular in the countries having a young and urban population, in the cities where the citizens spend their time working and in the companies where the mobile represents an indisputable fashion,

- Individual factors: They are related to changes of the needs as consumers become increasingly demanding for new services (Gerpott *et a*l 2001),
- Intrinsic specificities of the media: Mobile devices have an "always on" nature as they are kept on or near users' bodies-in pockets- nearly all times of the day. As a result, usage of mobile devices is simple and convenient, which makes them powerful vehicles for marketing messages (Howard 2003).

There are marketing related concerns in creating databases of mobile telephone numbers, such as, to inform about a traffic in the points of sale, the promotion of the products and the services, the launch of a new product (Dianoux and Held 2004), the improvement of the brand awareness, and for obtaining a fast reaction and a credible feedback (Kavassalis *et al* 2002).

According to Dickinger's definition, mobile marketing is: "Using interactive wireless media to provide customers with time and location sensitive, personalized information that promotes goods, services and ideas, thereby generating value for all stakeholders" (Dickinger *et al* 2004).

As far as the issues mentioned above are concerned, we can list the advantages of mobile marketing versus traditional marketing as below:

- Anytime, anywhere access to consumer,
- Lower Cost,
- Immediate feedback and ability to change campaign,
- Ability to better target audience,
- Customer data capture,
- Measurable ROI.

Although there are advantages of adopting mobile marketing, some factors create problems in adoption, such as:

- Technical constraints: Several researchers affirm that (Dickinger *et al* 2004, Desavoye 2002, Dianoux and Held, 2004, Kavassalis *et al* 2002, Barwise and Strong 2002, Yunos *et al* 2002):
    - There are difficulties arising from the fact that messages are text based and limited to 160 characters. Thus, new methods are needed to make more use of mobile marketing,
    - Smaller screen size : Users are limited when using a wireless device interface,
    - Inconsistent formatting (special fonts, colors, picture formats might not be displayable on some wireless devices),
    - Slow download speeds: Current technology does not allow that. However, 3G network and device penetration is expected to increase the speed.
- Legal problems: In this category, concerns mainly arise from (Yunos *et al* 2002):
    - Privacy: The sector of electronic communication is under the pressure of regulations which regulate the data processing in personal matter and protection of the private life of the consumers (Dianoux and Held 2004),
    - Standardization: There is a lack of well defined standards and regulations, and it creates difficulty for the success of major companies.
- Barriers related to the choice of the data base: Companies face a dilemmatic situation that whether to construct their own data base or to use an external one (Dianoux and Held 2004). However, the usage of an external database is not specified under any regulation.
- Barriers related to the market: The market of the mobile marketing lacks maturity, and it is in its very beginning (Yunos *et al* 2002, Amieux 2004).
- Financial problems : there are problems of (Yunos *et al* 2002):
    - Cost: Advertisers consider the current mobile devices to be expensive. Solutions may be operators involving in device distribution or subsidies,

- High business risk: The fact that wireless marketing is in its beginning, there is a high uncertainty in the market,
- Push vs. pull: Pull ads are more favorable than push ads in terms of intrusion, but they cost more.

Here is another list of grouped barriers of mobile marketing adoption, which is derived from Triki's *et al* (2004):

- Environmental factors:
  - The number restricted or quasi absent of the service provider,
  - Absence of recommendations by the agency,
  - Unavailability of the data bases,
  - The existence of a blurred regulation,
  - Lack of information on the subject of the mobile marketing,
  - Non popularity and non exploitation of the tool ; low awareness,
  - Reception of criticisms and the complaints preventing the exploitation of the tool.
- Technological factors :
  - Problems of networks, such as slowness, failures of sending,
  - Ignorance of technical specificities of the network, the mobile services and the world of telecommunications.
- Factors about marketing:
  - There is a lack of evaluation techniques and it prevents companies from multiplying their experiment or to give up the adoption,
  - Non possession of the permission based data bases,
  - The resource allocation to mobile campaigns can be blocked by the concerns about the profitability of the support, the nature of the product to be promoted and the relationship with the mobile support.
- Organizational factors:
  - Culture of the firm and of leaders: Leaders who are not familiar with the mobile marketing may constitute a barrier against the adoption,

- Structural specificities: These are factors that stem from the dysfunction of the information system, the inexistence of a developed marketing unit or they may be related with the nature of the activity,

According to a similar categorization by VisionGain, there are technological and attitudinal barriers to successful mobile marketing. Technological barriers are the following (VisionGain 2006):

- Restricted memory on mobile phones,
- Short battery life,
- Limitations due to small screen size,
- Network capacity - as more video is sent over mobile networks, speed can degrade and,
- Cost of 3G-enabled mobile phones.

Attitudinal barriers are listed below:

- Subscriber distaste for spam,
- Operator concerns about churn,
- Uncertain business model and,
- Lack of interest in 3G-enabled technologies and low 3G penetration.

VisionGain's report points some other issues to consider as challenges (VisionGain 2006):

- Capacity problems of bandwidth may arise, because services such as mobile TV create problems on networks. More advanced technology is needed to prevent from this problem,
- The fact that consumers may be irritated by advertising on their mobile phones, especially if they pay a premium for data services worries mobile operators and content providers,

- Despite the fact that pilot projects about 3G services have received positive feedbacks, there is still a belief that the demands for some 3G services are not sufficient,
- Moreover, all products and services may not necessarily be appropriate for mobile advertising. As a result of market conditions, mobile advertising can work for higher value goods but not for lower value goods. Traditional adverting may prove to be more feasible in financial terms, as the cost of SMS/MMS and rich media can be much higher.

The effectiveness of these mobile supports may be the case, because the barriers mentioned above can be surmounted. As Triki *et al* explain, there are preconditions for the launch of a campaign of direct marketing via the mobile to be effective, such as the availability of the data bases "opt-in" and the possession of the permission of the consumers, the control of the message and the offers (Triki *et al* 2004). In order for mobile advertising to be accepted by the customer, most carriers are very careful while making mobile advertising.

The first golden rule for an effective mobile advertising lies in the data bases customers: It is implied from the customer database that mobile marketing is permission based. Permission marketing is a new concept in management and it is widely thought that it will be important in the mobile environment (Kavassalis *et al* 2002, Godin 1999, Tsilira *et al* 2004, Heinonen and Strandvik 2003). Permission marketing is especially applicable to text messages, because these messages have an invasive nature and they have a social use (Rettie and Brum 2001).

There is a new directive supporting an opt-in approach. According to this approach, without prior permission of the end users, unsolicited messages via electronic communication for marketing purposes cannot be sent to them (Kavassalis *et al* 2002, Godin 1999, Tsilira *et al* 2004). This gives the opportunity to change preferences or stop messages at any time (Barnes 2002).

Barnes and Scornavacca forecast that mobile marketing will be based on the permission of the message recipient (Barnes and Scornavacca 2004). The concept of "permission marketing" requires an explicit acceptance of the addressee to receive the marketing message, in order to prevent the spam problem. By this way, Godin implies, it is accepted that anonymous mass advertising creates irritation in consumers (Godin 2001).

Personalization is another fundamental characteristic of permission marketing. Any marketing impulse will be adapted to individuals according to their customer profiles, and if it is done properly, marketing messages will be perceived as valuable information sources, rather than annoying "interrupt marketing" (Barnes and Scornavacca 2004). Barnes advocates that such customization will decrease the possibility of a negative reaction (Barnes 2002).

On the other hand, Leppaniemi notes that the most important thing to attract and retain consumers is the content of the message. Indeed, the golden rule of all advertising is "content is the king" (Leppaniemi *et al* 2004), so there is a need for several writing standards to design a mobile message.

Barnes thinks that there must be a surprise in the marketing message (Barnes 2002). The language used in message is the key determinant of the success or the failure of the advertising message (Mort and Drennan 2002). However, Desavoye (2002) contends that the mobile message content must be in line with the model AIDA (Attention, Interest, Desire, Action). Thus, the expected return from customers is affected by the design of the mobile marketing campaign.

Brands and advertisers seem eager to reach mobile consumers, but saturation and high competition in the market create an obstacle for them. Also, new entrants increase the risk for brands and advertisers. These entrants include big-brand mobile virtual network operators (MVNOs) such as ESPN and Disney as well as youth-oriented data MVNOs such as Amp'd and Helio and portal players such as Google. Since consumers are charged for all of their voice, messaging and data activities (browsing, downloads, video/TV, music) and

since there is a scarcity of real estate, it would be unfavorable for carriers to let their consumers face an untenable in-your-face mobile advertising experience. There is a direct and billing relationship between operators and mobile consumers. Ad supported models promise several benefits for the mobile consumer, such as free, discount or premium services. However, Barrabee believes that operators should continue to create value for the consumer and the brand (Barrabee 2006a).

As above mentioned problems imply, many issues and topics have to be addressed in order to realize the full potential of mobile advertising. Mobile advertising growth and greater breadth depend on improved acceptance and understanding of mobile advertising dynamics by carriers, regulatory bodies, consumers, advertisers and their agencies.

2.2.2 Mobile Advertising Applications and Techniques

SMS and WAP, which are the most ubiquitous and available media, are the most common mobile marketing and advertising media. SMS is available on all mobile devices, while WAP/browser capabilities are supported by 94% of devices in the US market. As a result, "SMS to short code" based mobile advertising campaigns are most popular ones. Short codes are applicable to services such as interactive media (TV, radio, in-venue at sporting events, concerts, bars, etc.), alerts, mobile marketing (including coupons, sweepstakes, etc.), downloadable content, chat and dating. Short codes give initiative for consumers to opt-in, so they are more likely to engage and make transactions. Especially, Interactive TV voting and polling (as in *American Idol*) is the most effective in giving initiative. Short-code campaigns are used as a tool for several brands from several industries to test the market. By means of short codes, mobile content can be distributed on retail and other channels such as TV, radio and shopping malls, and also marketers can use short codes for cross-channel merchandising applications. On the other hand, hundreds of publishers use the second most common application - the mobile internet/WAP- for their advertisements. Actually, as Barrabee mentions, real champions which use WAP are a number of big brands in news (e.g., USA TODAY), sports (e.g., ESPN), weather (e.g., The Weather

Channel), travel, shopping, entertainment, financial/business and information (including local search such as go2), as well as the big portals (Google, Yahoo!, AOL, MSN, etc.) (Barrabee 2006a).

Mobile advertising means ads sent to and presented on mobile devices and it can be evaluated as a part of mobile commerce (Mennecke and Strader 2003). Considering these attributes of mobile advertising, it has a much more potential than what is currently realized. Accordingly, current short code and WAP advertisements are elementary forms of potential mobile advertisement applications. Mobile advertising is far more different from traditional commerce (Choi *et al* 1997), because besides it enables sending unique, personalized and customized ads (Turban *et al* 2002), it also gets consumers involved in discussions and transactions with the advertiser.

Mobile advertising includes special features, such as the personal nature of the device, the interactivity that the device enables and the context dependency that the infrastructure enables. As a result, ads that are delivered through m-advertising can and should be different from traditional ads. Permission based marketing aims its messages to be perceived as valuable and/or entertaining by the consumer, and the features directly affect the content of messages. Moreover, as Juntunen shows, individual's needs and reasons for using the media, i.e. media goals are among determinants of the value of the content (Juntunen 2001).

Mobile phones are mainly used for two reasons: Receiving information and personal entertainment. These goals determine the expectations of users from mobile ads. If a consumer has a negative perception of permission-based m-advertising, s/he will not give permission to any company to send ads to her/him. Thus, mobile advertisers should take the special features and requirements deriving from these features of the message content into consideration, for the purposes of segmentation and individual targeting of the ad (Tahtinen and Salo 2004).

Operators need to test how much mobile advertising to introduce to subscribers before there is a negative reaction.

Holland introduces two patches to advertising that can be followed by mobile operators (Holland 2007). These patches, namely covert and overt are as below:

- Covert advertising is a scheme in which brands are gradually introduced to the subscriber through mobile content. Current subscription models of operators will remain the same. However, the subscriber does not get anything for viewing advertising, so there are limitations in this model as there should be a balance between satisfying sponsor brands and keeping the value of the service in the eyes of the subscriber,

- Overt advertising is a different approach in which the subscriber is informed about the fact that advertising will form an intrinsic element of the value proposition and the subscriber will be rewarded for viewing the ad, in return. As long as the subscriber's perceived value of the service is greater than the "cost" of viewing the ad, operators are free to add as much advertising to the content as they wish.

European operators (such as Orange) and US operators (such as Sprint) increasingly allow third-party advertising to use their WAP decks. According to Holland, most of leader operators will have on-deck advertising in 2007, and some of them will use too much covert or overt advertising that the subscriber is not prepared to tolerate.

There is another categorization of mobile advertising, which divides it into two main categories: Push and pull advertising (Barnes 2002, Paavilainen 2002). Push advertising and mobile advertising are usually used together. Advertising may be "pushed" to the subscriber in two contexts. In an unsolicited context, the subscriber receives advertising messages as a part of an existing customer relationship. In a solicited context, the subscriber accepts certain services or promotions such as sponsored sports score alerts to be pushed to her/him at certain times. On the other hand, pull advertising means embedding

ads to contents or services that are "pulled" by the users. An example of pull advertising, given by Leppaniemi is, a customer who requests the local weather from mobile service provider gets responses that include related ads (Leppaniemi *et al* 2004).

Reports by Barrabee and Yunus elaborated separately on this categorization and extended it to three categories, namely pull, push and passive (Barrabee 2006a, Yunus 2005):

- Push**:** SMS, MMS or mobile e-mails giving information about new products and services are directly pushed to customers, or company brands and slogans are inserted at the of messages. Push is not allowed in the US, as consumers have to opt-in to receive commercial messages on their mobile phones,

- Pull: Short codes are presented in print and broadcast media, and subscribers use them in order to opt-in or directly request information. For example, information on new CD releases is pulled by music channel subscribers,

- Passive: Banner ads are installed on WAP pages, or advertising sites are designed with aggregated content that customers can browse for latest offers.

All these categories can include response mechanisms, usually in the form of WAP or HTML link in the message, and these mechanisms allow customers to see further details or make purchases through a direct click-to-purchase option.

Jelassi maintains that the difference among these campaigns stems from the level of involvement of advertiser and recipient, as shown in Figure 2.5. Both the advertiser and the consumer's level of involvement are presented as level of activity in the figure. Consisting of non-interactive, one-way advertisements such as TV spots, radio or print ads, and posters, traditional campaigns fall into low activity level type for both advertisers and consumers. However, traditional campaigns are the most common types of advertisement. On the other hand, mobile campaigns display high levels of activity on either on the side of

the advertiser, the consumer or both. When an advertising company displays a high level of activity, it means that the company approaches its customers proactively.

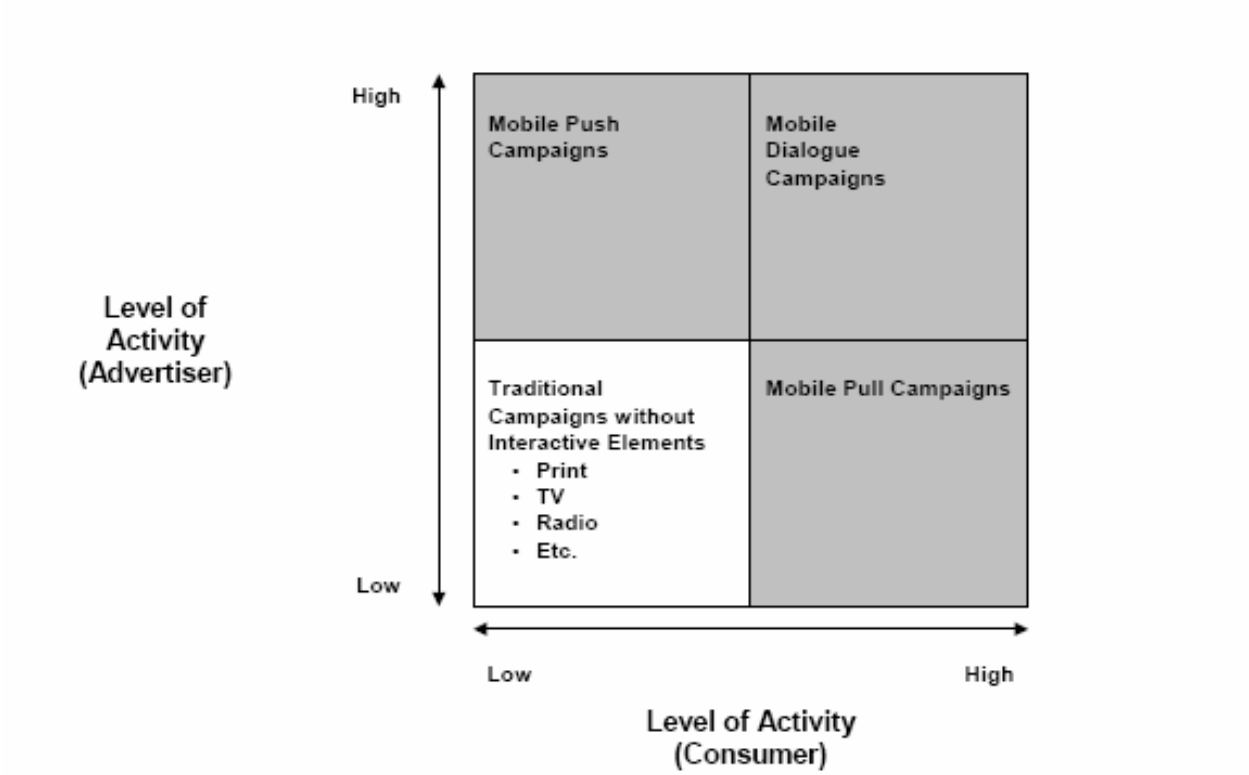


Figure 2.5: Mobile Advertising Framework (Source: Jelassi 2004)

Meanwhile, a high level of activity from the side of the customer implies that the customer shows active reaction to an advertisement or a newspaper ad, for example, by soliciting further information via the mobile phone. Jelassi also adds another campaign type named dialogue campaigns to the above-mentioned ones. Dialogue campaigns differ from others in terms of duration and the intensity of interaction between advertiser and customer. Time interval for simple push and pull campaigns varies between only two and four weeks, and these campaigns can focus on only one theme like a raffle or a game.

On the other hand, aiming to create a long lasting relationship with the customer as to extend the customer's preference range, dialogue campaigns last several months and there are different and conjoint themes in these types of campaigns. For example, a mobile

horoscope service gives information about the customer's birthday, and the advertiser may use this information for sending out a personal greeting later on. This kind of in-depth consumer information, as Jelassi notes, can be used to distribute mobile coupons—for instance, a free candy bar as a birthday present—, to introduce new products or to do market research in a very targeted fashion (Jelassi 2004).

Triki identifies three advantages of mobile couponing, which are targeting, time sensitivity and efficient handling (Triki *et al* 2004). Another study by Scharl *et al* also supports Triki *et al*'s identification (Scharl *et al* 2004). According to the forecasts of some experts, mobile coupons will be more useful than their paper-based equivalents, because mobile coupons are difficult to misplace or forget as they are stored in mobile phone memories.

Mobile CRM is another mobile advertising activity that gains importance. A loyalty program may include sending free newsletters, pictures, ring tones, bonus points or coupons to subscribers. For example, a mobile operator plans to inform its customers via SMS about places to buy the cheapest pre-paid phone cards when their credits run low. Studies show that sending SMS reminders to clients who do not pay bills on time is another popular application (Triki *et al* 2004, Scharl *et al* 2004).

Entertainment services are indicated to increase customer loyalty, especially among the ''generation @'' – young Internet users between 12 and 16 years old. Accordingly, mobile advertising may include entertainment services like games and prizes. Examples of entertainment services include TV campaigns, such as Big Brother and American Idol where spectators vote for their favorites via SMS , as well as the previously mentioned Warner Brothers and Wella campaigns (Scharl *et al* 2004).

Triki argues that location based services (LBS) are highly applicable for local advertising (Triki *et al* 2004), but despite expectations, location based services could not find an area of application other than car-based GPS systems, mapping and directions. Although there is still potential for marketing and advertising revenue, LBS considered being intrusive. Most operators other than Korean and Japanese ones are not willing to allow third parties to

locate their customers, even if it works on an opt-in basis. In Europe, Germany is developed in terms of LBS, but tight regulations have inhibited its development in the UK. Push-based LBS is perceived negatively, in the US, so its development there is not possible. Although the whole concept of LBS is criticized to be mobile spy ware and something intrusive, Visiongain reports that pull-based LBS that works upon the inquiry from the subscriber has a future (VisionGain 2006).

Mobile search may become a valuable experience for the customer as a result of the attributes of mobile—always-on, always-with-you, personalized and contextual enablers such as location capabilities—and these experiences may be effective channels for advertising. For example, a customer who searches for a sushi restaurant will receive a list of restaurants around, with reviews, directions and click-to-call options. Moreover, Barrabee advocates that besides location, mobile search can be made more relevant and contextual by mining customer intelligence and mobile behaviors—who you are, what you do, what you search for and what you buy (Barrabee 2006a).

Triki lists some other mobile advertising offerings (Triki *et al* 2004):

- Information services: include news, weather, traffic, market rates, horoscopes or songs,
- Branding: branding efforts have attempted to link images and emotions with a brand,
- Product launches: mobile marketing supports product launches, special services.

There is a comprehensive evaluation of mobile advertising services and applications in VisionGain's report, and some of these services that are not mentioned yet are (VisionGain 2006):

- SMS/Premium SMS: SMS voting for "American Idol" resulted in 13.5 million text messages during the 2004 season. People frequently buy ringtones, logos, and wallpaper via SMS, and these purchases are very popular in Europe, followed by the US. $4 billion global revenue was collected from ringtone sales alone in 2004,

- Voice Messaging: Voice messaging is a service which enables customers to send voice messages using their own voice to other phones. Voice messaging may have a potential for being a marketing medium, although its popularity has not expanded outside Asia,

- MMS/Premium MMS: There are approximately 300 million camera enabled mobile phones and it is popular to send picture messages on a peer-to-peer basis in many countries. However it is not so useful in commercial terms as premium (commerce-enabled) MMS is limited. MMS has not brought about expected results in both Europe and North America and created disappointment. Lack of interoperability among carriers has been the main obstacle against the success of MMS in the US, and also premium MMS does not attract people as it is seen as expensive. Despite all these frustration that premium MMS has caused, it is only about one year old there is still a potential for success,

- Games/In-Game Advertising: Game advertising is a very new phenomenon. The shift from 2D to 3D games has increased the cost of game development and game advertising models are applied to offset this cost (Barrabee 2006a). In-game advertising can be made through a billboard in a realistic video game, while mobile games called advergames can be developed in order to promote a specific product. $200 million a year is spent for such in-game advertising worldwide. Mobile gaming market is predicted grow from $4.8 billion in 2005 to $11.2 billion in 2010. Growth rate in Asia is twice as high as that in any other market,

- Mobil TV advertising: Mobile sector which enables increased advertising to a desirable target audience for an expanded time period is more advantageous than regular TV ads which are targeted to different audiences depending on the time of day. Males aged 18 to 39 which constitute a highly desirable group for advertisers are difficult to reach during the day through traditional media channels, but mobile advertising presents a much better way to target this age group. Especially in the

U.S., mobile TV is used as a common advertising medium. According to forecasts, mobile TV is expected to reach over 100 million subscribers and present an important opportunity.

- Adult Content: Multimedia content can be shown before videos of adult content or be embedded in them, so adult content presents a great potential for advertisers. According to an analysis based on one million searches in Google site on February, 20% of searches on mobile phones included adult material, while 8.5% of searches on desktop. As it was the case with the Internet, the audience is likely to spend considerable time watching the screen and to have a high tolerance for advertisements. However, regulations and reluctance of operators may cause an obstacle against the revenue growth in adult content market.

Operators in the US still use mobile advertising only for the promotion of their own products and it is not the case to sell advertising space to third parties. However, brands can increase their recognition by becoming campaign partners, and also they may benefit from an alternative revenue stream. Advertising sponsorships may also support new mobile services like video over 3G, by decreasing their cost and increasing their adoption. Moreover, development of mobile search (on-deck, off-deck and local) capabilities is expected to result in opportunities for advertising. Actually, this might have a negative affect on revenues, but in the long run it may cause a higher more common usage among users (Barrabee 2006a).

SMS will retain its strength as a marketing medium in near future, but 3G will emerge as a strong medium, too. Major brands will face the challenge of being more creative focusing on display advertising, rather than marketing promotions, so they will shift to using video and TV technologies. However, smaller companies that cannot afford multimedia ads and local companies that aim to reach a targeted audience, will not be enthusiastic to migrate to video and TV technologies. SMS and opt-in LBS will continue to be the most efficient and affordable method of marketing for them.

2.2.3 Business Models and Value Chain

Since mobile communication was dominated by voice, mobile network operators were the strongest players in the market and as VisionGain points out; they were reluctant to share their relationships with their customers (VisionGain 2006). As a result, revenue share with third parties was rarely a case. However, the increasing emphasis on value-added data services in the market has resulted in more collaboration with third party companies that provide content such as ringtones, games, music, and video (Holland 2007).

Currently, data and content are the main elements of the mobile market, and new players providing content and services directly to consumers have entered the market. Operators are not dominant players of the market anymore; rather their core strength is easy delivery of voice and data. Some operators have involved in the development of content, which is not their area of expertise, in order to keep their control over what subscribers receive. These operators are reluctant to work with third-party media and entertainment providers (VisionGain 2006). As a result, it may be implied that there will be a struggle for finding a profitable business model between media and mobile marketing technology companies.

Yunus indicates that according to different advertising budgets, products and the desired level of in-house business in campaign design and execution, there will exist many different business models.Many players have a position across the evolving mobile marketing/advertising value chain, and they are: Advertisers (i.e., brands/content owners), Agencies, Enablers (i.e., applications/solutions vendors), Content providers/publishers, Aggregators (including SMS aggregators) and Wireless operators/service providers (Figure 2.6). Advertisers can design multichannel campaigns and provide mobile advertising inventory (e.g., WAP impressions) from different content provider/publisher sites by the help of ad agencies that are supported by intermediaries. Content aggregators that host WAP content or have SMS links into multiple carriers are another option for advertisers, for example, Enpocket and Flytxt which position themselves as m-advertising service providers are moving up to design and management level in the value chain(Yunus 2005).

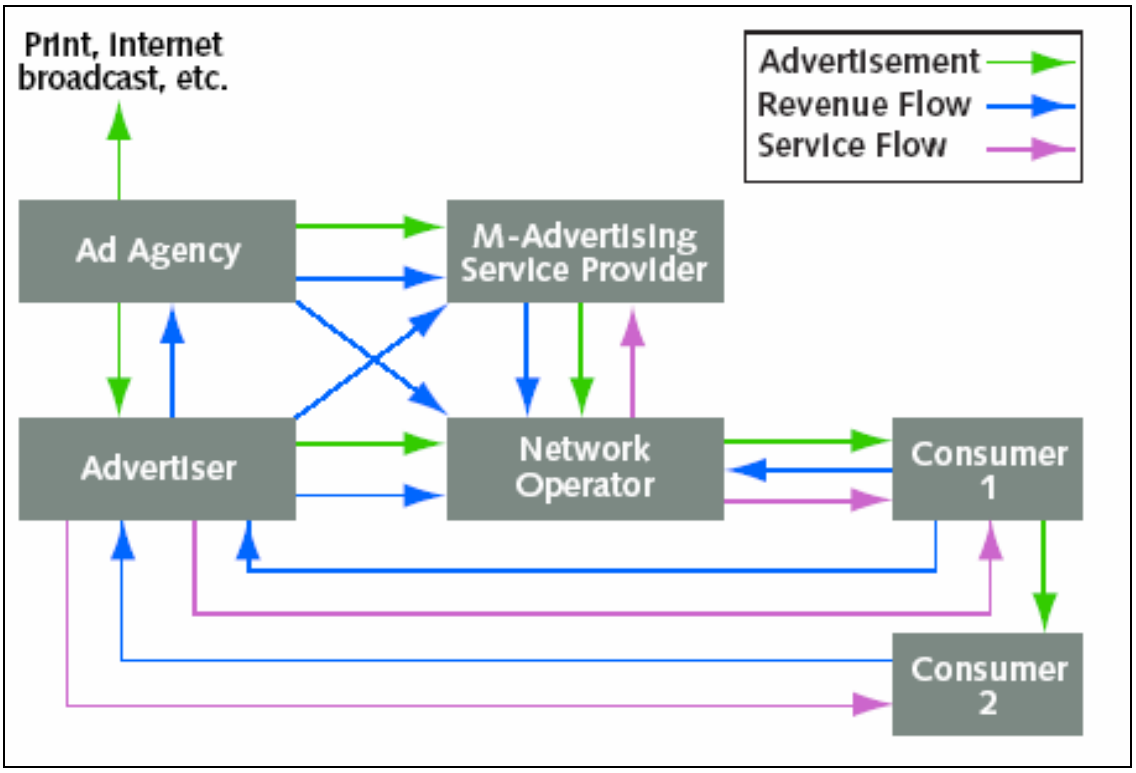


Figure 2.6: M-advertising current revenue and product flows (Source: Yunus 2005)

Mobile advertising business models, players and their roles are all new phenomena (Barrabee 2006a). The revenue and product flows of a typical m-advertising campaign are illustrated in Figure 2.7. In this model, the network operator is the main link, and the specialist service provider is a secondary option. Barrabee indicates that direct contracting between advertisers and carriers for ad placement on carrier portals is currently in trial mode and it will eventually be possible (Barrabee 2006a).

Figure 2.7 illustrates the revenue and product flow scenario of ad-supported mobile downloadable applications (e.g., games) in which the participation of the carrier in the distribution of the content is optional.

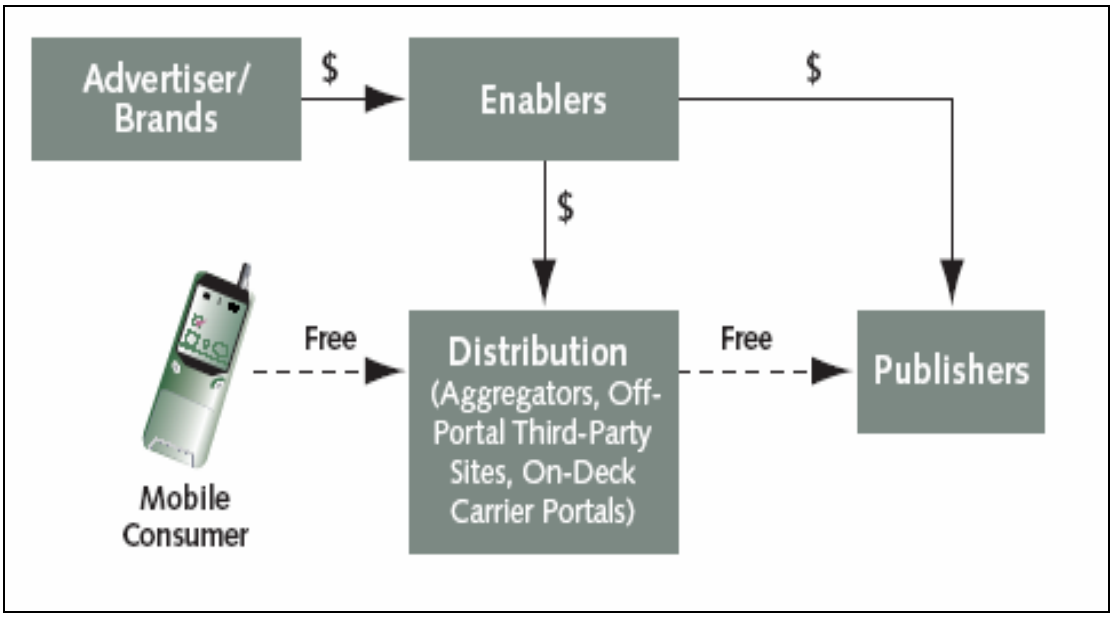


Figure 2.7: Mobile downloadables example: ad-revenue flow (Source Barrabee 2006a).

The carrier in this scenario gets revenue share only if it is a part of the distribution of the content, otherwise it gets only traffic revenue. Different platforms (e.g., WAP versus downloadables, on-deck, off-deck, etc.) imply different revenue shares and different involved parties. As mentioned before, there will exist different models catering to different needs (Barrabee 2006a).

Providing the content on their own portals gives the operators the opportunity to get all the revenue, without any licensing fees or development costs. However, finding employees capable of developing and deploying content may create a problem. On the other hand, working with a third-party company to develop and present the content in an "off-portal" (independent of the operator) environment would lead to a greater variety of content that could get to the user more quickly. Although operators that own the network still would receive a negotiated share of revenues, they would have to give up their control over the content. It is widely believed that the struggle to take control over the content will create the most tension among the market players over the next few years. The fact that operators

will give up their “walled garden" approach and start to work with third parties, will create a suitable environment for advertisers as they will no more depend on operators. According to VisionGain, there will be an expansion in services and capabilities that are served by mobile marketing specialists, and they will offer "one-stop-shop" option to brands and entertainment companies (VisionGain 2006).

Today, the mobile internet/WAP environment outside of the carriers’ walled gardens is the place where the most of advertising activity happens. Only exception is mobile marketing campaigns via text messaging. According to the *2005 US Mobile User Survey* by the Yankee Group, as of mid-2005, only 14% of mobile consumers had ever tried to browse the mobile internet, and active users that browse at least once per month constitute only 6%. Despite this low regular usage, there is a growth in mobile advertising in the WAP space starting from the last year. Even though mobile advertising is still a limited market, it is gaining importance and working business models emerge. Barrabee stresses that all the major carriers in the US are focusing on testing platforms/technologies, business models and ultimately consumer acceptance in mobile advertising, so activity within the carriers’ walled gardens is still in trial mode (Barrabee 2006a).

In Asia, m-advertising is used only for the promotion of operator products and services. Selling advertising space to third parties is not the case, but other brands can be involved in the campaign by becoming campaign partners. Advertising a new content service along with discount coupons for merchandise or a chance to win prizes provided by partners is a short sided approach. It not only loses an additional revenue stream, but also inhibits the development of mobile content. Advertising sponsorships, on the other hand, support new mobile services like video over 3G, by decreasing their cost and increasing their adoption (Yunus 2005).

Mobile marketing activity which mostly includes short codes and text messaging campaigns, and mobile advertising which mostly happens off-portal in WAP, have increased in the United States recently. The main aim in these applications is to generate delivery mechanisms to decrease the carrier involvement necessary for the service delivery.

Simultaneously, carriers are working with their publisher and vendor partners to develop new approaches on-deck, and expanding to video and other areas (e.g., downloads and search) (Barrabee 2006a).

As new media technologies develop and the customers and the service providers become more experienced in how to apply m-advertising, business models of mobile advertising that fits to the service type will be developed. Currently, as a result of the "walled garden" approach mentioned previously, operators are strong in revenue sharing agreements with all players in the value chain. Although they earn modest revenues from the content on their portals, as they are not specialized in content production and delivery, they will incur increasing costs to deliver contents to users (Barrabee 2006a).

In the case of Turkey, mobile operators have been acting just like their counterparts in other countries, and they have had a direct contact with content right owners, shared revenues directly, and got the biggest share in revenues. However, there seem to be a need for new players, such as content providers/aggregators in the market, because content management has become an infeasible operation for operators due to increasing number of services. The entrance of the new players to market will result in a decrease in revenue shares of both operators and content owners, and they do not accept lower rates. As a result, natural development of mobile content value chain in Turkey is interrupted, and market players can still insist on their infeasible expectations. If this rather conservative approach is continued, establishment of effective business models of mobile advertising will be delayed and Turkish market will not start to benefit from advantages of mobile advertising timely.

The weakening of the walled garden approach will strengthen the position of content producers and media and marketing firms in negotiations. When operators get lower shares from content revenues, they will search for another revenue source. Advertising may be the solution, as it is tucked neatly around the content. By sharing ad revenues as well as content revenues, operators can increase ARPU. The operators that favor this bit pipe only model will use mobile advertising and leverage their customer knowledge. On the other hand, the

operators that do not wish to give up their value-add relationship with their customers; will strive to protect their customer relationships (VisionGain 2006).

Consequently, the MNO's seem to be advantageous today. Recent trends suggest that they will shift their emphasis on to off-net traffic growth, and this will accelerate mobile internet traffic in the future. The strategic agreement between Yahoo! and 3 in June 2006 is an example. According to this agreement, access from 3's mobile network to Yahoo! services such as Yahoo! Search, Yahoo! Mobile Web, Yahoo! Messenger, Yahoo! Mail, and Yahoo! Go for Mobile was allowed. It was also announced that it was planned to market additional Yahoo! services to 3 subscribers in the future. Starting with the UK, services will be introduced in 3's European and Asia-Pacific markets. Yahoo! and 3 will market their services on their networks together (Lonergan 2006).

The Mobile Marketing Association (MMA) is the body that takes steps in order to establish standards and best practices for mobile marketing. MMA issues rules and these rules enable carriers to keep out advertisers that send unsolicited messages, while signing contracts with content providers and other parties. Also, these rules enforce carriers to consider consumer privacy laws. For example, operators cannot give information about a consumer's location without the permission of the individual. MMA has released best practices around chat and viral marketing recently, and it plans to study on standards and best practices for additional mobile medium (e.g., interstitials, mobile video, mobile search and downloads). These standardizations will take an important role in the stabilization of business models.

2.3 Attitudes and Customer Intention to participate in Mobile Advertising Campaigns

According to research conducted by some mobile operators, consumers react positively to m-advertising, as long as they receive the message with their consent, get a tangible benefit and messages are relevant. Thus, operators and advertisers should meet these criteria without alienating customers in the process. Yunus predicts that as acceptance and

understanding of m-advertising by operators, consumers, advertisers and their agencies improves; m-advertising will grow rapidly and have a greater breadth (Yunus 2005).

There is an ongoing debate over the consumer receptiveness of mobile advertisements. Leppäniemi and Karjaluoto point out in their study that, according to consultancy reports, industrial reports, and exploratory academic studies, the general attitude towards mobile advertising from consumers' viewpoint is rather positive, but they do not deny the existence of uncertainty related the topic (Leppäniemi and Karjaluoto 2005).

Yankee Group estimates that there was a 130% increase in monthly SMS volumes which became roughly 10 billion in 2005. Although text messaging is used extensively by the 13-to-17-year-old and 18-to-24-year-old segments, it still skews young. 25-to-34-year-old segment also started to adopt and regularly use the application, as illustrated in Figure 2.8 (Barrabee 2006a).

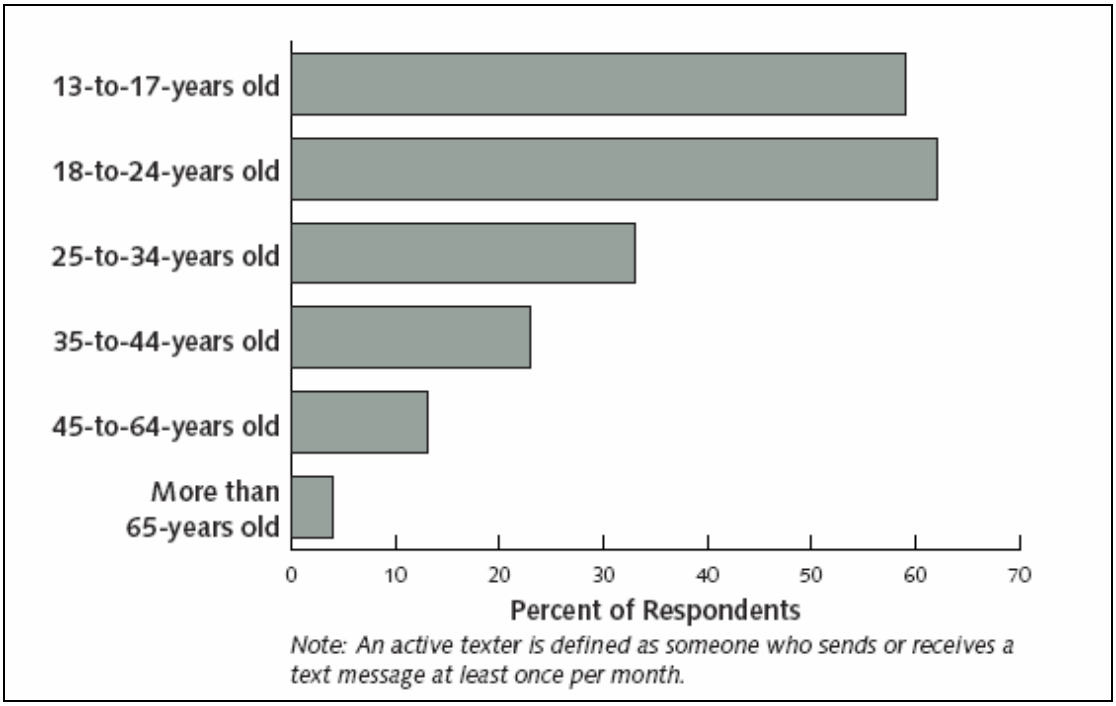


Figure 2.8: Active SMS users by Age (Source: Barrabee 2006a).

SMS to short codes is the most common mobile advertising application today, so it can be implied from the Figure 2.8 that mobile advertising is very likely to be successful among 13-34 age group. However, Holland suggests that operators should consider the differences between youth-oriented subscribers (experimental, low income, prepaid, technophile) and mainstream operator subscribers (traditional, affluent, post-paid, possibly technophobic) (Holland 2007).

Although Yankee Group 2006 US Mobile User Survey reveals that different applications, services and content are appreciated by different segments, mobile TV/video and mobile music were listed to be among the top five applications for future spending by 25% and 20% of adults, respectively (Figure 2.9).

The proportion of those under age 35 who listed mobile music among the top five is even greater than 20%. All of these trends imply that delivering value, improving the overall data experience and evaluating new business models are important. Increasing maturity and commoditization of the messaging market and the adoption of richer, higher priced 3G multimedia services by customers will challenge wireless carriers to arrest consumer push-back. It is no doubt that mobile entertainment will be affected by the growth in the consumer mobile data market. However, the mobile entertainment market, particularly higher end services such as mobile video/TV, needs new business models that include advertisement-supported options in order to be a mass market phenomenon. Mobile advertisements could enable operators deliver more value to end users and to increase the mobile data usage. Currently, monthly price points for mobile video/TV packages account for the largest portion in the budget that consumers are willing to spend. As a result, carriers either have to make consumers spend more by adding more value to data services, or they have to introduce more package and price points options to access mobile entertainment. Besides the early adopters, adoption should be extended to an audience which increasingly enjoys mobile entertainment (Yankee 2006).

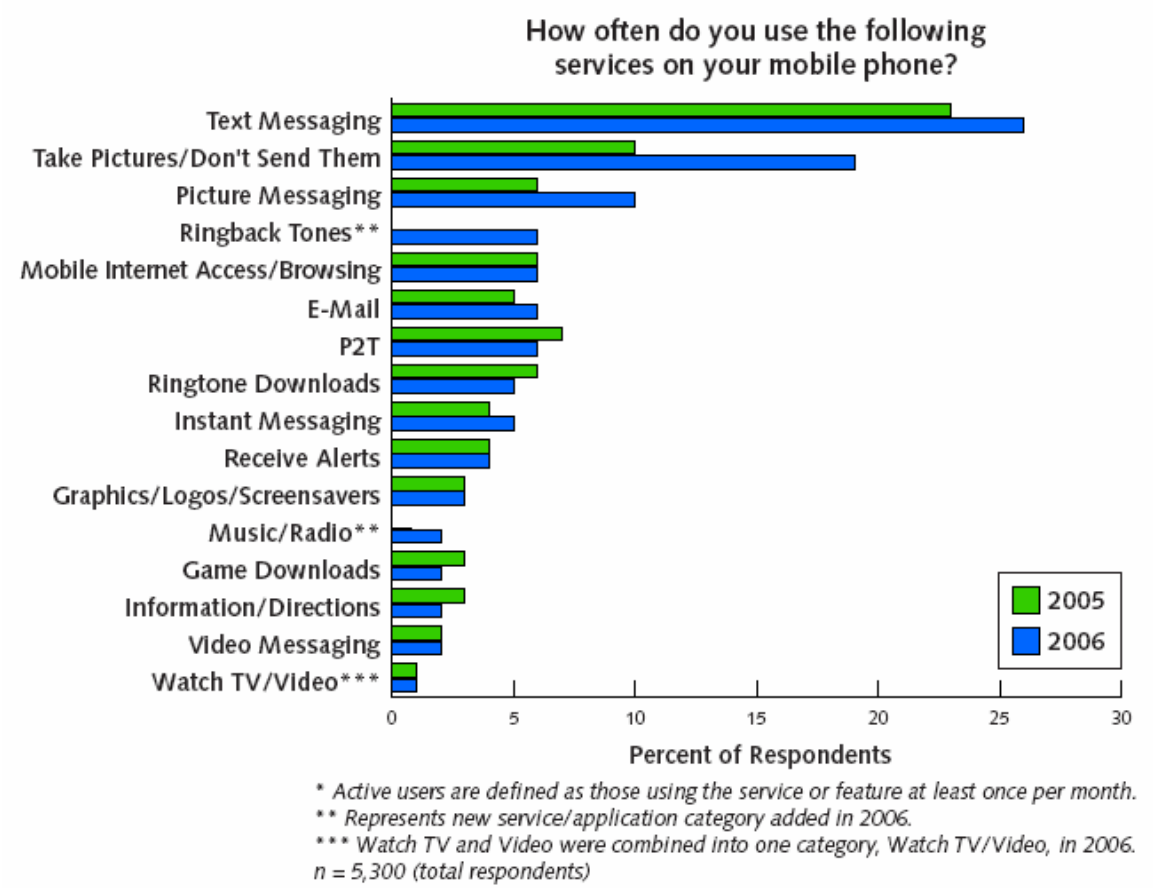


Figure 2.9: Trends among active users by application or service (Source: Yankee Group 2005 US Mobile User Survey and 2006 US Mobile User Survey).

It is important for the marketers to know which consumers are open and responsive to marketing communication that includes mobile advertising. While consumers cannot be sent text messages without their permission, advertising is embedded in the media that are available on mobile phones, so advertising is more intrusive. This is why European and North American carriers have to care about not alienating subscribers with advertising on mobile phones. However, there has not been a problem in subscribers' experience with advertisements in Asia. Customization of advertisements will enable marketing and advertising agencies, consultants, and application providers to fully utilize mobile phones. Moreover, 3G enabled phone penetration has passed the level that makes ad campaigns feasible. 3G technology enables operators to provide a variety of services including music downloads, live TV and video downloads. Customization and features enabled by 3G will

increase costs for subscribers, but this can be prevented with advertising funded content. This approach will be perceived as a fair trade-off by most of the subscribers (Yankee 2006).

Direct messages from marketers are reacted more positively in Europe, than in North America. Visiongain 2006 report shows that the proportion of European wireless users who are willing to receive SMS-promotions on their mobile phones is 84% (Figure 2.10). On the other hand, only 20% of the US subscribers who received marketing message via mobile phones in 2004 found those messages relevant. It can be concluded that messaging is more appropriate for classic promotional campaigns in Europe (VisionGain 2006, Yankee 2006).

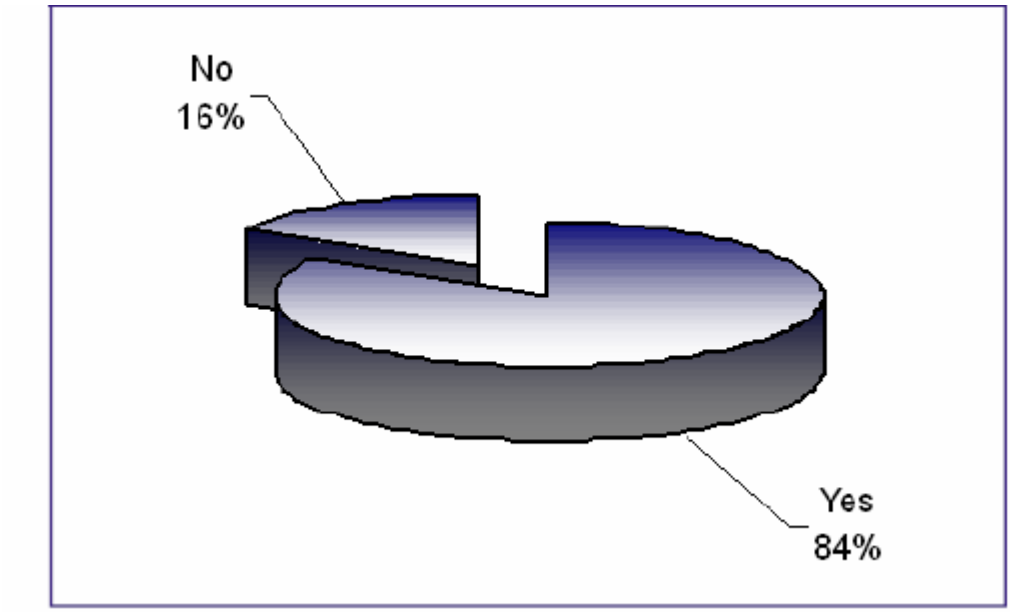


Figure 2.10: European wireless users are willing to receive SMS-promotions on their phones (Source: VisionGain 2006).

According to Yankee Group end-user research, whenever consumer grants consent, messages are relevant and there is a tangible benefit, about one third of consumers are open to mobile advertising, as illustrated in Figure 2.11.

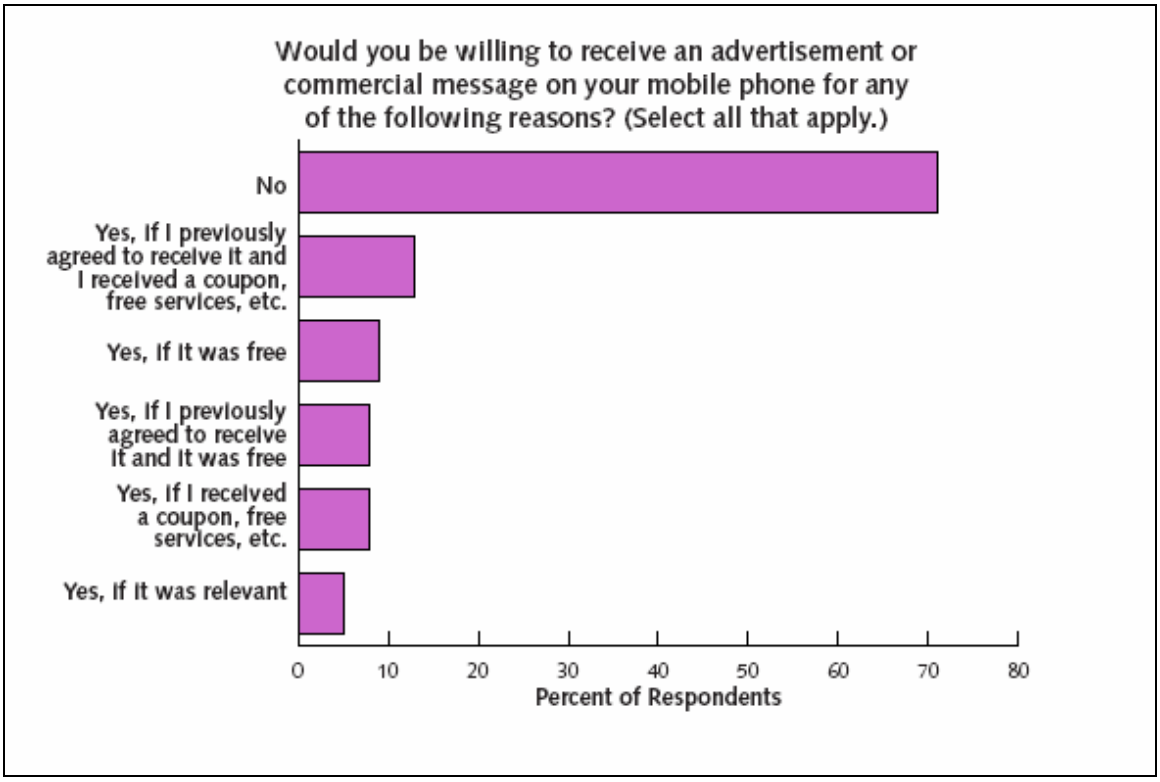


Figure 2.11: Customer receptions of mobile advertisement (Source: Yankee Group 2004 and 2005 US Mobile User Surveys)

Amoroso shows that the willingness to accept mobile advertising among the younger demographic is increasing, as illustrated in Figure 2.13. The figure reveals that half of all 18- to 24-year-old subscribers are willing to receive advertising or commercial messaging as long as they are relevant, valuable or free (Amoroso 2006).

However, as mentioned previously, it is a great challenge for operators and advertisers not to alienate customer when sending messages that are relevant, valuable or free. According to Yankee Group 2005 US Mobile User Survey and 2006 US Mobile User Survey, 17% of consumers expect to see advertising while browsing/surfing the mobile internet on their phones and 30% do not expect, while 53% answered they did not know.

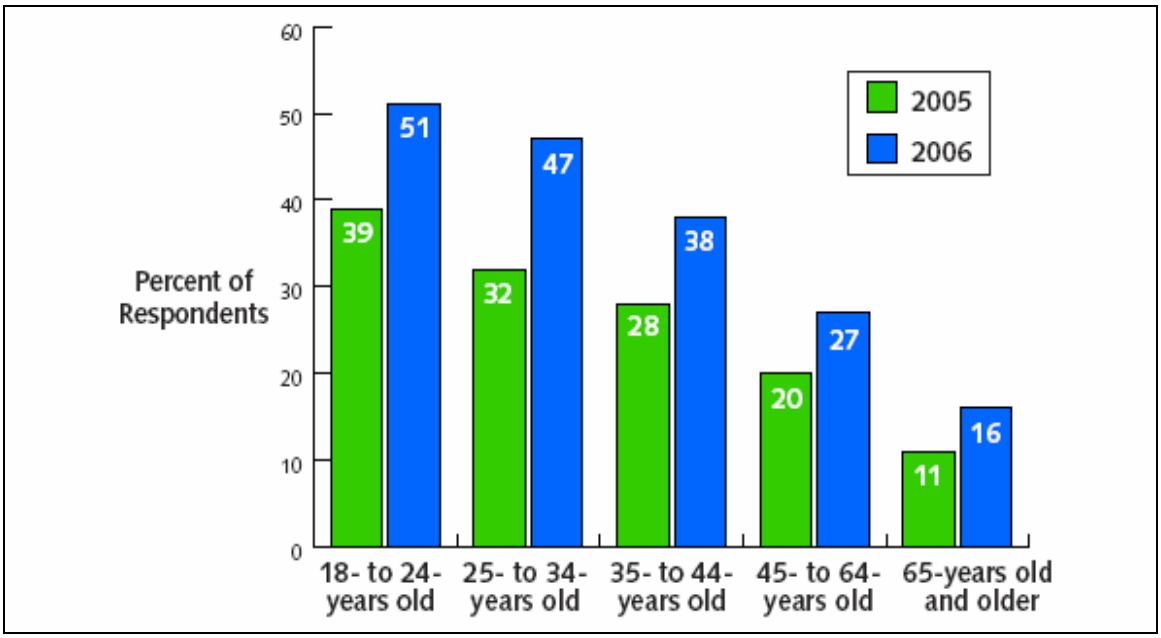


Figure 2.12 : Adult wireless subscribers' willingness to receive advertising or commercial messages on their mobile phones (Source: Amoroso 2006).

Meanwhile, when further questioned, more than 80% of consumers answered that they would not click on banner ads when browsing the mobile internet (Figure 2.13) (Barrabee 2006b).

Considering the fact that only 14% of mobile consumers have browsed the mobile internet, and only 6% browse at least once a month, it can be concluded that mobile market is still immature. Barrabee considers this lack of maturity of the market, ease-of-use and form factor considerations, and limited real estate in mobile to be reasons for the lack of interest in mobile advertisements (Barrabee 2006b).

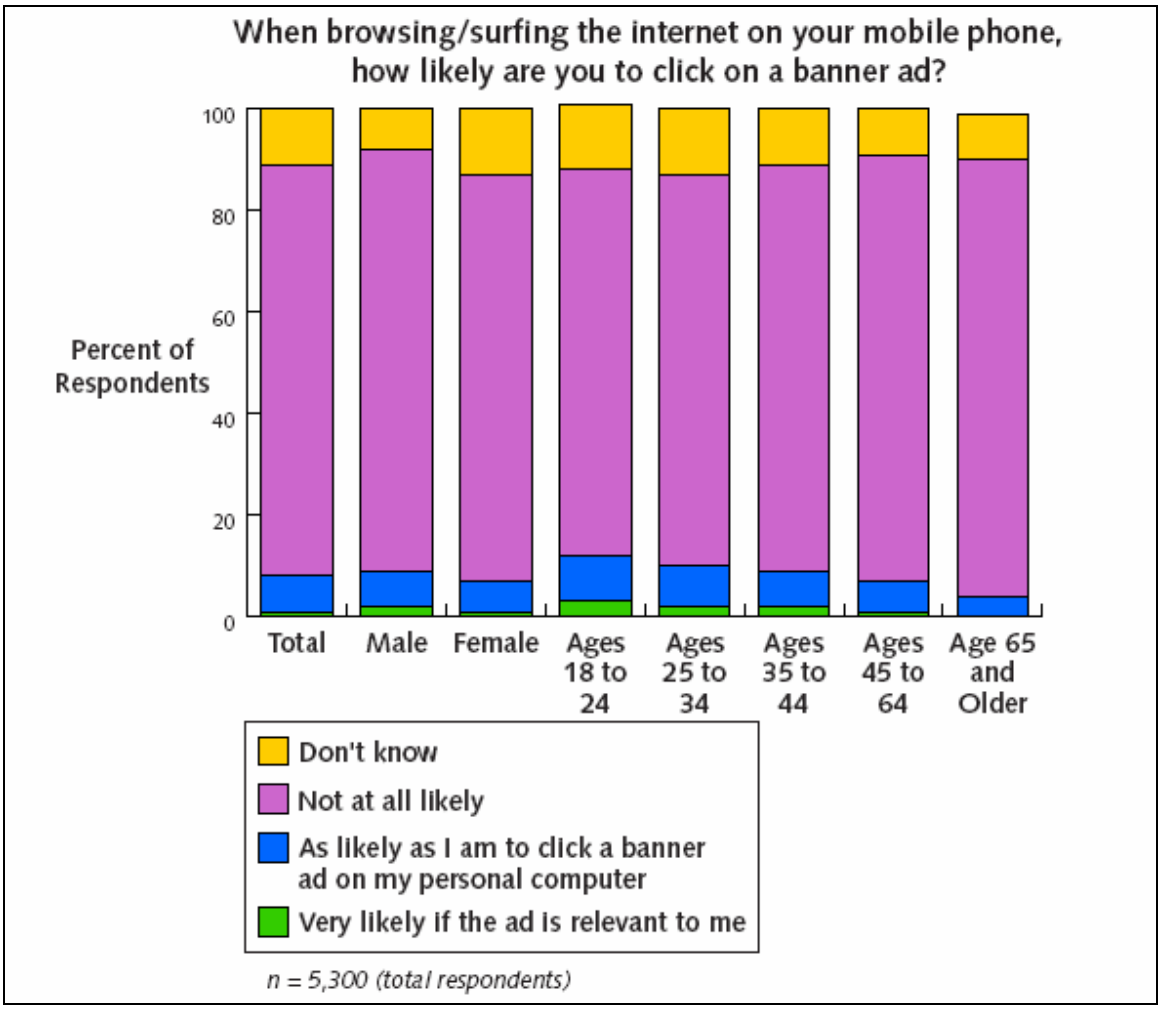


Figure 2.13 : Mobile consumers uninterested in mobile internet-based advertising (Source: Barrabee 2006b).

As Shabelman indicts, a recent research by Jupiter Research reveals that 38% of customers never want any text messages to their phones. Shabelman proposes that advertisements need to be done well, not to be too intrusive, to be entertaining and to add vale, in order to overcome concerns of customers and be accepted by them (Shabelman 2007).

Mobile operators need to improve content discovery and purchase, find new distribution channels (off-portal) and deliver value. According to Barrabee, delivering value can be achieved through introducing new pricing/packaging options and new business models

(e.g., mobile advertising), especially to segments which seem more receptive to advertising (Barrabee 2006b). Among others, customer acceptance will be the primary problem which is faced by mobile advertising companies, in the process of the growth of the market.

Results of an extensive survey of SMS advertising in the UK shows that the trust in the message source is very important in considering an SMS ad as acceptable as TV and radio ads. Spamming is a big concern for consumers who are willing to receive SMS campaigns (Enpocket 2002).

As a result, it can be implied that negative e-mail spamming experiences have had a negative effect on m-advertising industry players and consumers. Considering the personal nature of the mobile phone, spamming is more invasive in mobile phones than in any other channel or device (Craft Digital 2003).

Therefore, the industry is challenged by the problem of how to block spamming. Being experienced with the Internet and e-mail, Americans know how technology can be used adversely, as in cases of identity theft and spam. As a result, they fear from scams, and they are suspicious of mobile promotions and advertising (VisionGain 2006).

According to results of a study by Forrester Research (Lewis 2001), mobile users in the US are not open to mobile ads, because they think that mobile phones are for communication and they are not suitable for advertising because of their small screen size.

The study of Yunos supports these findings to some extent (Yunos *et al* 2003). Yunos argues that some technical issues will challenge wireless advertisers, and these challenging issues include the small screen size of the devices (which has an effect on how to display content correctly and effectively), inconsistent formatting in the ads referring to differences in the devices, slow download times with current telecommunications networks, and different technological standards (*e.g.*, Symbian vs. Microsoft Smartphone). These issues will be obstacles to standardization and regulation of mobile advertising, at least in the short run (Yunos *et al* 2003).

Finally, mobile consumers desire to have control over their experience and derive real value. These facts are crucial for mobile advertising to be successful. Consumers can be delivered value through a variety of ways and benefits (full or partial subsidies), but relevance and being targeted to the different behaviors of the mobile consumers should be given importance. Operators should ensure that it creates value and all participants (the consumer, brand and carrier) will benefit from the relationship. They should also find ways to overcome factors that create irritation, such as technology, spamming and information security.

CHAPTER 3:

EMPIRICAL STUDY CONDUCTED IN ISTANBUL

3. EMPIRICAL STUDY CONDUCTED IN ISTANBUL

This empirical study is conducted in Istanbul with 252 samples to analyze the antecedents of customer intention to join mobile advertising campaigns.

3.1 Problem Statement

There is no doubt that mobile devices have a powerful impact on modern business. Marketers' world has also been affected by the new form of communication. Interactions between customer and advertisers are enabled by mobile devices, as a result, Pavlou and Stewart state that advertising interactions become rapid and easy (Pavlou and Stewart 2000). Moreover, these interactions have become location independent. Consumers can be provided with information they are interested in, so marketers can have the chance to build customer relationships of a new dimension. As a result, modern advertisers are increasingly using various models of mobile technology to advertise and promote their products.

Mobile advertising adoption and acceptance has been rising, but, according to Becker, marketers should clearly understand elements that drive consumer acceptance in order to generate consistently positive returns from their programs (Becker 2005a). It is clear that marketers need to understand how consumers perceive and respond to mobile devices as a source of advertising to be able to use mobility as an effective communication channel. Mobile advertising has attracted a lot of information so far, but the factors that influence consumers' willingness to accept mobile advertising has been evaluated in only a few academic studies.

Research in this area is important to determine the facilitators and barriers to affect mobile advertising. Information on these issues will provide marketers with best ways to develop effective and appropriate mobile advertising campaigns having a positive impact on consumers.

Accordingly, this study targets to find answers of below given research questions:

- Are characteristics of a mobile advertising campaign associated with end-user's intention to participate in mobile advertising?

- Are demographic characteristics of end-user and design characteristics of a campaign associated with end-user's intention to participate in mobile advertising?

3.2 Theoretical Framework

Becker advocates that not only identification and understanding of the key variables and their antecedents, but also understanding of their linkages are important for marketers to develop effective programs (Becker 2005b). In the next section, the foundation for our theoretical framework is developed and discussed.

3.2.1 Research Model and Development of Hypotheses

Whether or not consumers are willing to accept m-advertising has been an issue of an on-going debate.

On one hand, Enpocket provides evidence for consumers' willingness to receive m-advertising to their mobile devices (Enpocket 2003). Lewis mentions that this is mainly because consumers want to subsidize the cost of other mobile services, such as e-mail and news services (Lewis 2001). Also, consumers are willing to receive m-advertising in order to get discounts into brick-and-mortar stores (Nikulainen 2002, Nokia 2002, Saunders 2003).

On the other hand, small screen size and the personal nature of the phone are the main obstacles before mobile phone users' willingness to receive m-advertising (Lewis 2001).

There are also technical constraints which make it hard to standardize and regulate m-marketing, and these constraints mainly originate from the device's ability to receive different forms of marketing information, slow download times, and different standards (Yunos *et al* 2003).

An extensive survey of m-marketing professionals conducted by Mobile Marketing Association was one of the first studies which addressed the so-called critical factors that affect the success of m-marketing (Marketing Week 2001). This study reveals that the potential of m-marketing to be an important communication channel depends on its ability to target audiences precisely and measurability of its effectiveness. Moreover, availability of specialist expertise in agency/content/service provider and case studies on m-advertising from relevant actors were found to be important factors for respondents. Additionally, according to the survey, several factors such as the possibility to personalize the messages, allowing opt-in, giving immediate response, and being location specific, drive the development of m-marketing (Salo *et al* 2004).

According to a UK survey conducted on one thousand Greater London cell phone owners, there are six advertisement types, namely brand building, special offers, timely media teasers, requests, competitions, and polls. Considering these categories, it was found that good advertisements were short/straight to the point (28%), funny/entertaining (26%), relevant to the target group (20%), eye catching (13%), and informative about prizes and promotions (12%). The study revealed that having an attractive underlying idea, being concise, using an understandable language for the target group and using the available 160 characters effectively were characteristics that a message should contain (Rodgers and Thorson 2000).

An article by Antonello Facchetti *et al* which is based on a wide literature survey as below listed (de Lussanet and Nordan 2001, Gartner Dataquest 2001, Grimsditch *et al* 2000, UMTS forum 2001a,2001b, 2001c), sums up critical resources for a successful mobile advertising campaign. It is concluded in the article that, from the user's viewpoint, a successful mobile marketing has to have the following characteristics:

- permission based,
- personalized,
- context relevant, according to time, position and role of the user,
- featured with a good user experience, enabled by multimedia and interaction,
- integrated in multi-channel campaign,
- usable and immediate.

For an effective communication, the critical elements underlying the m-advertising should be understood by marketers. Various studies show that time sensitiveness, personalization (DeZoysa 2002, IMAP 2003) and location awareness (ELBA 2003, Varshney 2003) are the key elements of successful mobile services, especially m-advertising (Barnes 2002, ELBA 2003, IMAP 2003, Yunos *et al* 2003). Moreover, the fact that mobile phone is a personal device makes the content of advertisement extremely critical. As it is stated in Craft Digital, people evaluate spams received via mobile media more invasive than that received via other channels and devices (Craft Digital 2003).

The unique personal, interactive, time and location independent nature of mobile is important for understanding mobile marketing, however these characteristics have been neither accounted for, nor integrated into a holistic model by the latest conceptual models of mobile marketing. Marketers must pay attention to some variables in order to understand reasons for the outcome of their mobile marketing campaigns and a consumer's response, and according to various studies, these variables are interactivity, message relevance, the messaging medium, the device and network, a consumer's previous experience with the brand and its product or service, permissions, and a number of other influential variables.(Stewart and Pavlou 2002, McLuhan 1964, Dickinger *et al* 2004, Barnes 2002, Tähtinen and Salo 2004, Bezjian-Avery *et al* 1998, Liu 2003, Tsang *et al* 2004, Rowley 2004, Paavilainen 2002, Sultan and Rohm 2005, Mort and Drenan 2002).

These independent variables influence the dependent variable of intention to participate in a campaign, but according to the Internet and mobile marketing research literature, there are a number of control variables to consider to isolate the influences on campaign outcome,

and these control variables are consumer profile, costs, experience with spam, gender, age, education, user's experience with medium, and others (Stewart and Pavlou 2002, Tähtinen and Salo 2004, Bezjian-Avery *et al* 1998).

To conclude, m-advertising industry includes creation of an advertising campaign in interaction with an ad agency and other media, production of messages in the needed format by m-advertising specific technology, and delivering permission-based advertising to the end user via mobile channel. In order to choose the most relevant elements associated with each factor, an extensive literature review on information as well as marketing management is conducted. Based on this comprehensive literature survey, a conceptual model showing the variables that influence customers' intention to join mobile advertising campaigns is developed, as shown in figure (Figure 3.1).

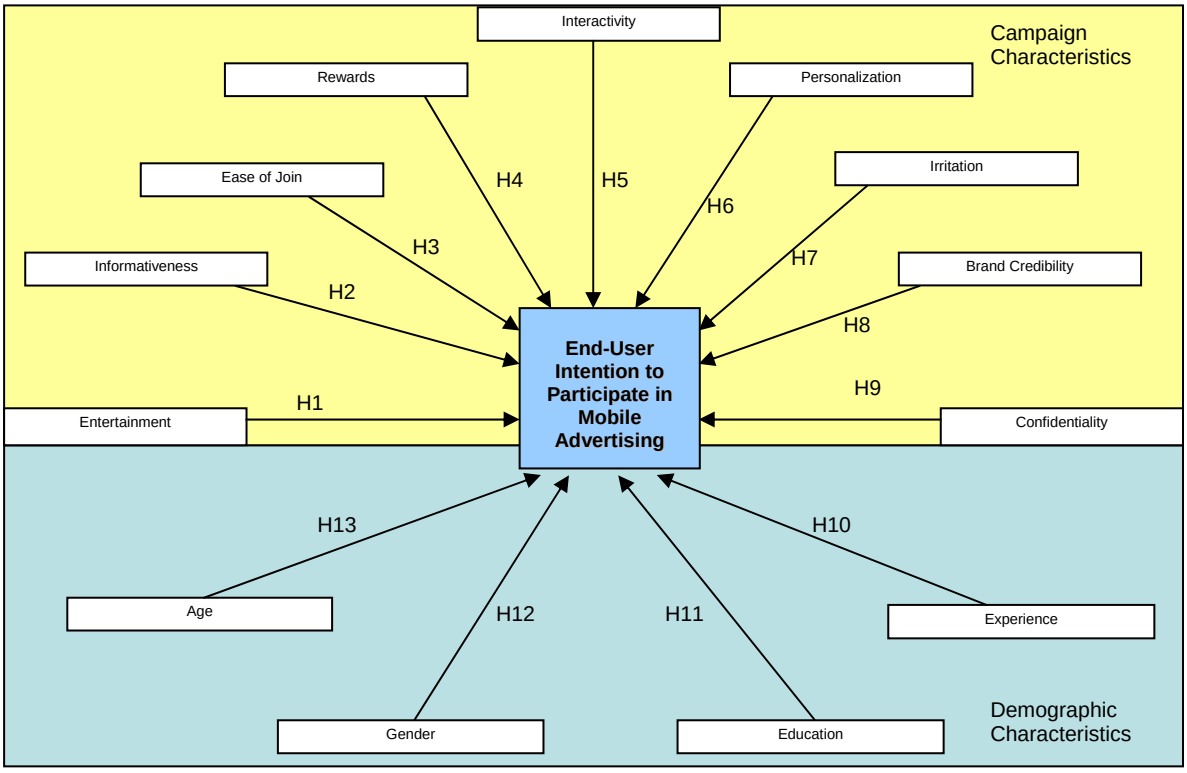


Figure 3.1: Conceptual research model**.**

The model also shows the key linkages between these variables and their antecedents. In the following sections, these factors are explained in detail as antecedents of customer intention to participate in mobile advertising, along with reasons to justify their inclusion, and the appropriate rationale. The intention here is to simply identify the variables; the findings of research study will define each of key variables and validate their level of influence on dependent variable and significance of the model.

The variables utilized are as following:

Dependent Variable: "The antecedents of customer intention to participate in mobile advertising" are aimed to be investigated in this study, so this is constituted as dependent variable.

Independent Variables: Out of a wide literature survey a number of variables that influence customer intention to use mobile advertising are identified and hypothesized. These variables include the characteristics of a mobile advertising campaign that can have effects on the consumer's perception of the campaign in a positive or negative way and the consumer's demographical characteristics such as age, gender, education; as they also could be key determinants of a consumer's acceptance of mobile advertising.

A conceptual model that summarizes the results of the previous exploratory study is given in Figure 3.1. The study concentrates on modeling customer intention to join mobile advertising campaigns as a function of mobile marketing campaign characteristics such as entertaining, informative, interactive, etc. and end-user demographics, such as age, gender, experience, education. This model can be considered as one of the most comprehensive models in the literature, because the maximum number of most contributing success factors is considered and these factors form the basis for this research. Figure 3.1 gives a graphical representation of the relations among variables and both descriptions of these success factors (independent variables) and relevant hypotheses will follow. The model is empirically tested in the next section, where the methodology is also outlined.

3.2.1.1 Entertainment

Entertainment and information value are significant drivers for the central acceptance of mobile marketing. As a result, precisely embodying mobile marketing messages and campaigns according to consumer entertainment and information requirements is very important. In order to create a positive attitude towards mobile marketing among consumers, marketing messages should be designed creatively and they should be entertaining, or they should provide a high information value. This positive attitude will lead to the behavioral intention to use mobile marketing services. The focus of marketing effort can be entertainment or information. The overall communication strategy for the individual product or service and the desired integration of communication efforts should be considered before deciding on the content of the message (Bauer *et al* 2005).

Attracting mobile phone users is a difficult task for many companies. A quotation from Cyriac Roeding, 12Snap's Marketing Director, explains this phenomenon (Pesola 2001): "A lot of companies make the mistake of coming to this from a technological angle, rather than thinking about what the consumer wants. If advertising is entertaining, if it engages the emotions, it will be accepted." The key for user interaction is an exciting advertisement.

Therefore, mobile campaigns should include both advertising and entertainment combined in such a way that users will readily lend their time to an advertisement. In this respect, the creation of mobile campaigns is not different from more traditional campaigns, such as TV campaigns, because the main reason that TV viewers watch advertisements on TV is that they are entertaining. TV advertisements are not only watched, but also they create a viral effect as watchers talk about the ads to their friends, and by that way, as it was the case with the Wella and Warner Brother's campaigns, the message is spread through people other than the original sender (Tawfik and Enders 2004, Brand and Bonjer 2001).

Appealing text messages and consumer attention increase the viral effect (Godin 2001). Recipients create a strong peer influence by forwarding advertisement messages to their friends. According to a study of WAP (Wireless Application Protocol) services adoption,

peer influence is more dominant than other external influences (Cohn 2001). For example, an SMS campaign by Wella – a leading European manufacturer of hair cosmetics and fragrances – sent a message ‘‘with a kiss’’ to their SMS opt-in clients. Customers liked the idea and forwarded Wella’s kiss to their friends, thereby multiplying the campaign’s impact (Godin 2001). Wella paid for sending text messages to clients, but paid nothing for messages forwarded to friends (12Snap 2001)

.Similarly, Warner Brothers Movie World in Germany invited customers to send a certain message to three friends, who then forwarded the message to Warner Brothers. The first five teams to complete the cycle won free tickets to Warner Brothers_ Movie World entertainment park (MindMatics 2001). However, as Godin indicates, success in viral marketing is not guaranteed, because it depends on erratic consumer trends and group dynamics (Godin 2001).

As a result, a mobile marketing campaign should include entertaining elements such as a game or a story, which have a positive influence on gaining customer attention. Gaining attention, which is often measured after the fact as recall is a critical measure. It is an important driver that influences consumer action. Some research concludes that, the recall rate for mobile advertisements is high, as compared with other media (Windwire 2000, Dickinger *et al* 2004). Accordingly, entertainment factor in campaign characteristics can have a positive influence on gaining customer attention and intention to join mobile advertising campaigns. Therefore it is concluded that;

> ***H 1:*** *A high entertainment factor of mobile advertising is positively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.2 Informativeness

Paavilainen points out that content is a crucial component of a mobile service, because it attracts the users and keeps them coming back (Paavilainen 2002). It should not be

forgotten that the golden rule of all advertising is “content is the king”, and this rule is also applicable to m-advertising (Leppäniemi and Karjaluoto, 2004). When consumers receive enough information about campaign, their attention is influenced in a positive way and their risk perception about intention to participate decreases. It is known that, a consumer who purchases a new product, prioritizes risk minimization, rather than benefit maximization. In this context, fair and transparent information regarding campaign details has a positive impact on campaign response rate.

The wording of an SMS advertisement is of the same importance as attracting attention in other media. According to a 2001 survey of one thousand mobile phone owners in London there are six types of advertisement: brand building, special offers, timely teasers, requests, competitions and polls (Barnes 2002).

Barnes suggests in his study that, text messages should contain an attractive idea, convey this idea concisely, employ language understood by the target group, and utilize the available 160 characters effectively (Barnes 2002).

Another important aspect is that customers should be given information on how to stop receiving future company messages. Studies support the idea that messages should also disclose on how to stop receiving further messages. (Dickinger *et al* 2004).

Robins reports that, in any event, consumers want the content of mobile services to be tailored to their interest (Robins 2003). More importantly, messages attract the attention of customers if they are relevant for them (Milne and Gordon 1993). Recipients show positive reactions to advertisements that transfer incentives, as a result, information is considered to be a very valuable incentive in mobile marketing (Varshney 2003). Therefore, it is not surprising that there is a strong relation between informativeness of advertising information and the customer intention to participate to campaigns. Therefore it is concluded that;

> ***H 2:*** *High informativeness of an advertising message is positively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.3 Ease of Join

The limit of 160 characters poses an obstacle for marketers to design attractive text messages, but this limitation can be overcome by the help of emerging technologies such as GPRS and MMS (OMA 2002). For example, a study in Japan shows that over 90% of those owning mobile phones with built-in cameras send MMS messages (Balasubramanian *et al* 2002). However, these advances bring about new difficulties, as well. Since screen sizes and displays are not identical, certain fonts and picture formats cannot be displayed on some mobile devices (Yunos *et al* 2003).

Usability is another issue that might keep consumers from using mobile devices to register for information services. Keying in text messages is a time consuming task. On the other hand, a computer's larger keyboard and screen enable easier registration via Web forms. Therefore, the World Wide Web is more preferable for consumers to share their interests, desired content and message preferences. MindMatics' RedAlertz message service is a good example of gathering user preferences and permissions via the Web (www.redalertz.co.uk).

On the other hand, thanks to high level technology involvement in mobile advertising campaign design, marketers are able to represent their all creativity. Multimedia terminals now have features such as high resolution digital cameras, digital music players (MP3, MP4), video streaming, mobile e-mail access, etc., and these features enable mobile advertising campaigns to be more joyful, entertaining, informative, interactive and personalized. However, new capabilities to overcome ex-barriers; such as 160 character limitation of SMS; introduce new barriers such as limited number of multimedia device penetration and customer awareness to use those high-end devices. High-end devices can be appreciated by early adopters but, some customer profiles such as laggards or follower customer segments might not find it easy to use those new devices. The complexities that might negatively influence customer intention to join mobile advertising emerge from not only technology, but also campaign flow itself. In order to achieve better response rates, messages should be easy to understand and campaign should be easy to join.

Scharl, Dickinger and Murphy found that there are two SMS technical barriers (Dickinger et al 2004). First, the arrival of a text message may fail. Being a ‘‘best effort’’ service, successful data transmission is not ensured by any mechanism. Still, estimated probability of a text message arriving is towards 99%. Second, arrival of messages within a few minutes is not guaranteed; it might delay up to six hours. This problem becomes critical in cases of time-sensitive contents such as account changes, last-minute tickets, product availability notifications, and weather reports. As Newell and Lemon indicate, instantaneous broadcasts with guaranteed real-time transmission will offer additional opportunities such as notifying travelers of flight status via SMS (Newell and Lemon 2001) and the success mobile marketing will increase.

Having considered the given aspects, an additional hypothesis is as the following:

> ***H 3****: Ease of participation to advertising campaign is positively associated with customer higher intention to join mobile advertising campaigns.*

3.2.1.4 Rewards

Direct marketing programs attract individuals if they offer some monetary benefits (Milne and Gordon 1993). Instant-win competitions are useful as they are effective in driving volume but, they do not offer incentive to return and, as a result, they are less suitable to generate a long-term relationship with consumers (Cowlett 2002).

Another research proposes that price discounts, which are incentive types as they provide a temporary reduction of the list price of the product, lead to several outcomes, including purchase acceleration and product trial (Shi *et al* 2005).

HPI Research Group conducted a survey on mobile marketing that was sponsored by Nokia, and nine out of ten (86 percent) of the respondents agreed that there should be a trade-off for accepting ads on their mobile devices (Pastore 2002). Despite the limitations

of the small screen and tiny ring tone of the mobile phone, a game, an image or a jingle is so compelling that it is no longer seen as an ad, but takes on a value of its own (Tawfik and Enders 2004, Brand and Bonjer 2001).

As it can be implied from above-mentioned facts, the offering of incentives such as product samples increases the willingness of consumers to participate in mobile marketing events. The opt-in nature of mobile marketing campaigns provides the potential participants with a direct and tangible incentive to participate in a mobile marketing campaign so; the prospect of winning a prize becomes especially important. Therefore;

> ***H 4:*** *Proposing reward is positively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.5 Interactivity

By means of the mobile phone, advertisers can get immediate feedback while they are contacting recipients, just like the Internet. The fact that the mobile phone is usually turned on makes it an interactive device so, this inherent interactivity of mobile phones should be integrated in mobile marketing campaigns where possible. The interaction can have many different facets: users can use the number pad to answer riddles or they can answer reaction tests that measure their mental agility. If a mobile marketing campaign does not integrate interactivity, it would not be different from the broadcasting of a slide show on TV. It would be non-utilization of a main asset of the medium. (Tawfik and Enders 2004, Brand and Bonjer 2001).

Rowley indicates that interactivity is a result of the need to involve the customer in the relationship so that the customer becomes a co-creator generating mutual value, however, this involvement should not be so much in order to prevent the interaction from becoming burdensome (Rowley 2004). Several studies report that interactivity is comprised of a number of variables, including velocity of communication, consumer's perceived control, alignment of actor's goals and intentions, brand trust, time of response, presence of

complimentary and substitute services, and the history of the interaction (Liu 2003, Stewart and Pavlou 2002, Tsang *et al* 2004, Rowley 2004). Becker advocates that a mobile marketing program can be successful only if customer interaction is managed continually, and this interaction should not be merely a one-time event, rather it should be the on-going longitudinal interaction (Becker 2005b).

In order for the interaction to be sustainable, the interaction must be relevant to the customer, permission based, and in line with customer cost expectations. Relevance is extremely important as it affects consumer response and mobile marketing campaign outcome (Paavilainen 2002, Sultan and Rohm 2005, Mort and Drennan 2002). If the interaction and the nature of the medium are relevant, the consumer will have greater control and power over the commerce relationship. There are a number of factors that influence relevance and a user's experience. These factors could be the message medium, device, network, time of message receipt or call-to-action response, location of user, and the level of campaign personalization and alignment to a user's goals. Therefore, an additional hypothesis is as following:

> ***H 5****: Interactivity of mobile advertising is positively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.6 Personalization

Another factor which has an influence on the consumer's responsiveness to marketing communication is the interest in and relevance of the marketing message. According to Hairong *et al* (2002), the intrusive nature of advertisements may be compensated by the utility that consumers derive from the content. The relevance is mostly specific to individual consumers; as a result, creating relevant marketing communication content may be a difficult task (Hairong *et al* 2002).

In other words something that is relevant for one consumer is probably less relevant for another consumer. For example, one consumer is interested in golf, another consumer is

interested in motor sports or gardening and a golf brochure probably draws the attention of the golf enthusiast and leaves the motor sport enthusiast indifferent. Marketers have been including emotional elements—such as visual sequences or music clips in TV ads that aim beneath the conscious understanding of the viewer— as a valuable marketing tool to sublimely reinforce the intended message with consumers. However, mobile marketing usually lacks this emotional dimension because of text, especially if shown on a small mobile phone display. These limited resources of the mobile phone need to be leveraged to create "emotion", just like with TV advertising. The combination of voice and sound is necessary to achieve this. For instance, a partner test or an activity aimed at single people can start with music jingles such as a short sequence of the soundtrack of the movie "Titanic". Again, the technology drives the quality of any given campaign but, the creative combination of different effects is more important in ultimately determining the campaign's success (Tawfik and Enders 2004, Brand and Bonjer 2001). Capabilities of technology should be used to make mobility more personal.

Mobile owners and brands gain experience from targeted advertising based on client profiles. If the message is personalized, its impact will be greater. An effective customer targeting needs a structured and well-maintained database. Clients must reveal information about their habits, interests and preferences, so that such a database for SMS campaigns can be built (Haghirian and Dickinger 2004).

Common attributes of the customer data will include leisure activities, number of holidays taken within a particular interval, music interests, favorite newspapers, favorite radio, Internet access, occupation, marital status, car ownership and income. The message's relevance will increase as explicit data from consumers is obtained, rather than existing databases are leveraged (Barwise and Strong 2002).

Text messages can be personalized based on the consumer's local time, location, and preferences (Watson *et al* 2000, Balasubramanian *et al* 2002), for example, customers can receive directions to the nearest vegetarian restaurant open at the time of request. Recipients can read text messages at their leisure and respond whenever they want so; text

messages are less intrusive than phone calls. Still, the best time and message frequency for the target group and topic is important for organizations. For example, messages that address students should not be sent at school time, because at this time students either can not be reached efficiently or might get into trouble receiving messages during their classes.

Two key advantages of electronic commerce are amplified by mobile phones: location independence and ubiquity. Watson found that consumers increasingly expected tailored and location-based services so, personalized mobile marketing is important (Watson *et al* 2000). Virtual communities can be created or reinforced through properly applied, location-based services. An example given by several studies is that, the Swedish company Telia, one of Europe's biggest and most innovative telecommunication companies, launched a real-time SMS game using mobile positioning to let users play against others in their vicinity (www.botfighters.com) (Watson *et al* 2002, Balasubramanian *et al* 2002, Anckar and D'Incau 2002).

Briefly, messages are more influential when they are more personalized. As it is the case with traditional media, databases with enough active and potential clients are crucial for a personalized SMS campaign to reach the target group profitably. As a number of studies suggest, such databases usually include personal information such as leisure activities, holidays, music and media interests, type of Internet access, occupation, marital status, car ownership and income (Barwise and Strong, 2002, Dickinger *et al* 2004).

However, sharing personal details is not accepted by many clients. This implies that there is an inevitable trade-off between personalization and control granted to the consumer. Confidentiality and privacy concerns are raised as data for tailored messages are gathered. These concerns are discussed in the following section. General guidelines for sending SMS messages as well as the validity of electronic signatures and electronic contracts must be considered by corporate policies. Astrid Dickinger and Parissa Haghirian (2004) report that European initiatives to restrict unsolicited SMS were welcomed by customer resistance. They argue in their study that a company which sends unsolicited messages negatively affects the wireless advertising industry (Dickinger and Haghirian 2004).

Mobile marketing is permission-based in the area of the EU. A new directive (EC 2002) for establishing standards for the processing of personal data and the protection of privacy in electronic communications sector was approved by EU, in 2002. The new directive adopts an opt-in approach; as a result, the end users must give prior permission before been sent unsolicited messages via electronic communications for marketing purposes. However, within the context of an existing customer relationship, companies can use the electronic contact details to offer similar products or services, but only under an opt-out rule. Thus, in order to conduct a successful m-advertising campaign, it is primarily necessary to own the media or immediately access to the customer database of permission-based mobile numbers. Leppäniemi and Karjaluoto report that m-advertising companies are usually actual providers of mobile media sales, and they act as aggregators of permission-based mobile numbers (Leppäniemi and Karjaluoto 2004). Marketers should definitely be warned so that they do not use impersonalized mass messages for communicating advertising content. As Bauer indicates, these types of messages have neither information nor entertainment value and consumers are mostly irritated by them (Bauer *et al* 2005).Therefore;

> ***H 6:*** *Higher conformity with personal interests and needs is positively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.7 Irritation:

The personal nature of mobile phones is a main challenge, as well as an opportunity for mobile advertising companies. Running advertising campaigns over mobile phones is a very sensitive issue so, as Tawfik and Enders warn companies who engage in this type of marketing need to be careful not to offend users (Tawfik and Enders2004).

In order to describe negative feelings arising from advertisements, Li promotes the concept named “Intrusiveness” (Hairong *et al* 2002). This concept is based on feelings of irritation,

which results in avoidance behavior. Whether an ad is distracting, disturbing, forced, interfering, intrusive, invasive or obtrusive, determines the intrusiveness scale. Because of its personal nature, direct marketing communication may even go beyond being discretionary and invade consumers' privacy. Unsolicited email and spam mail are examples that are considered to be an invasion of privacy and they have actually been seriously problematic for many consumers (Windham and Orton 2000).

Consumers perceive the channel as either disturbing or acceptable, by this way the channel influences consumer responsiveness to marketing communication, as well. If the consumer considers marketing communication via a channel as disturbing the consumer's attention to and perception of the message will be affected negatively. On the other hand, if the channel is perceived as appropriate for the specific marketing communication, the acceptance of the marketing communication by the customer will be enhanced. Also, some consumers may perceive the channels as neutral, i.e. it is neither disturbing nor accepted.

In this respect, the disturbance effect created by marketing messages is an issue of interest, as the new interactive media increases the level of direct contact with the consumer. The situation in which the consumer receives the marketing messages is influential in consumer responsiveness and attention to marketing communication. Digital channels are interactive and personal so, upon receiving the marketing message, the consumer can be in various situations. According to Hairong *et al* (2002), interruptions may be perceived as extremely intrusive when they are unexpected.

For example, consumers can receive marketing messages to the mobile phone everywhere, such as when shopping, at meetings, at dates etc. Whether the consumer will acknowledge and take interest in the marketing message or not depends on the time and even the place being more or less appropriate. Supposedly, this reduces consumers' attention to the marketing message and they may even perceive the message as disturbing.

In addition to the effect of the situation, different channels have different effects on the level of disturbance. For example, some consumers perceive traditional direct mail as

disturbing and put a sign on the mailbox not to get advertisements. Tele-sales irritates some others, because of the personal and direct nature of the channel. On the contrary, Hairong *et al* identifies that there are consumers who see the direct marketing communication as a welcomed way to receive information about offers and new product launches, and this kind of consumers would most probably appreciate SMS offers to the mobile phone because they can be highly situation-specific (Hairong *et al* 2002).

As it has already been mentioned, recipients can read SMS messages at their leisure and choose whether to respond so, SMS messages are less intrusive than phone calls (Geser 2002). However, paying attention to the characteristics of both the target group and the topic, organizations must consider the time and frequency to send messages (Dickinger and Haghirian 2004).

On the other hand, even though SMS provides marketers with lots of marketing possibilities, there are practical limitations. It is time consuming to send high loads of data via text messaging. Content restrictions – i.e., messages may not exceed 160 characters – might pose an obstacle for consumers to signing up for SMS. By contrast, web-based information systems are easier to register. A simple registration process is also instrumental in gaining permission. Consent of the client is necessary; otherwise clients will refuse to accept messages (Golem 2002). Godin and Peppers mention that permission, a relatively new marketing term but actually an old concept has come of age by means of e-mail (Godin and Peppers 1999). Permission marketing is beneficial for both the customer and the company. As Petty supports, permission marketing provides marketers with audience interested in their message, and it also provides customers with fewer and more relevant messages (Petty 2000).

The consumers are disturbed by unwanted messages, commonly known as spam. Spam is illegal in some countries regardless of its medium (e.g., telephone, fax, electronic mail, mobile communication, etc.). User acceptance is inhibited by frequent spams; and this argument may be even more appropriate to mobile marketing. Fear of spam is the strongest factor that negatively affects customer attitudes towards SMS advertising. Consumers may

refuse to register for SMS ads because they are afraid of unwanted messages and privacy fears. Moreover, changing one's cell phone number is far more difficult than changing one's email address hosted by free Web-based services such as Yahoo! or Hotmail (Dickinger and Haghirian 2004).

Campaign characteristic and flow should be modified in accordance with the above defined issues in order to prevent irritation of customers and attract higher customer response rates to mobile advertising campaigns.

Both push and pull marketing can be applied via the mobile channel. In pull mobile marketing, individuals (or respondents) reply to a call-to-action in traditional media or mobile channel via their mobile phone. Push mobile marketing, on the other hand, refers to the marketer sending unsolicited, but expected, messages to a respondent (Dickinger and Haghirian 2004, Barnes 2002). In both cases, permission (an opt-in) has to be received from the respondent before sending any message to an individual, according to industry best practices and regulation requirements (MMA Code 2003). For instance, as Becker explains, in a pull program, such as in a traditional media mobile enhanced program, the respondent gives permission for the discrete interaction by responding to the call-to-action in real-time, while in the push model, such as in an alert or subscription service, the respondent gives prior approval for the interaction (Becker 2005b). Considering that, in a pull campaign consumers themselves decide whether they want to participate when they see the advertisement printed on a poster or watch it on TV, setting up a pull campaign is not as sensitive regarding the opt-in. Tawfik and Enders assert that the major challenge of pull-campaigns is that they require creation of compelling advertisements that have the desired pull effect to entice consumers to call in and participate (Tawfik and Enders 2004).

On the other hand, an extensive database of customers is required for a push campaign. Some companies such as telcos or retailers have built up these types of databases by means of CRM efforts until now, and they can now tap into them. However, they should not neglect the personal nature of the mobile phone when doing so. If existing customers are exposed to "spamming" with unwanted SMS, they will surely be alienated. Another option

is that existing profiles can be bought from other companies. MTV, for instance, has an external mobile advertising company that markets MTV's permission-based database to other companies that want to target the attractive youth market. These companies benefit as they can utilize an extensively profiled, permission-based database of their target group while MTV generates additional revenues. The effort of obtaining permission may be found cumbersome by many marketers; however, the permissions gathering task should be viewed as an opportunity to pre-qualify interested parties in the brand, the product and services, as a burdensome requirement. In this way, interested prospects in the brands are qualified so, marketers can be sure that they are only spending their effort and resources with interested parties (Becker 2005a).

Mobile medium has brought about new opportunities to personalize messages (Leppäniemi and Karjaluoto 2005). Irritation factors result in negative perception but, it can be can be eliminated by personalization to enhance consumers' willingness to accept m-advertising. In the model of the study, the impact of personalization is already analyzed on behalf of H6; therefore the relationship between the irritation and dependent variable is investigated. It is concluded that irritation caused by an incomprehensive or unwanted mobile advertising message may reflect negatively on the participation to mobile advertising campaigns. Therefore another hypothesis is as following;

> ***H 7:*** *Irritation caused by factors such as spamming and content of an advertising message is negatively associated with higher customer intention to join mobile advertising campaigns*

3.2.1.8 Brand Credibility:

According to the study of Drossos, et. al., the term 'credibility' is used to refer to traits of the communicator including expertise, trustworthiness, attractiveness, and power (Drossos *et al* 2007). Research had found that there is a strong relation between credibility and attitude towards advertiser, and attitude towards advertiser was the most important predictor of attitude towards the ad (Mackenzie and Lutz 1989). The definition of brand

credibility is "the extent to which consumers believe that a firm can design and deliver products and services that satisfy customer needs and wants" and it has been found that brand credibility has direct, positive effects on attitude towards the ad, attitude towards the brand, and purchase intent (Choi and Rifon 2002, Goldberg and Hartwick 1990).

Advertising credibility has become a significant part of advertising value of web advertising (Brackett and Carr 2001). According to MacKenzie and Lutz (1989), advertising credibility is "consumers' perception of the truthfulness and believability of advertising in general", whereas Pavlou and Stewart (2000) define it as "predictability and fulfillment of implicit and explicit requirements of an agreement" (online document). There are different factors that influence the credibility of an advertisement, and the company's credibility is a major one (Goldsmith *et al* 2000, Lafferty *et al* 2002).

Most consumers are still not comfortable with the concept of mobile business and feasibility and security issues of these businesses create skepticism (Siau and Shen 2003). Consumers evaluate their mobile phone as a very private item. Studies propose that mobile technologies are perceived as "personal" technologies, attached to a particular body or person (Green *et al* 2001). As a result, consumers react very sensitively against receiving messages from unknown persons or organizations. If data is controlled by unknown individuals, annoyance can easily occur among receivers (Whitaker 2001). In addition, there is an assumption that ads received from relatives are more credible than those received from (Vatanparast 2007). Consequently, marketer's brand is an important factor in customer's decision whether to participate in a mobile advertising campaign or not.

Considering the findings cited above, we conclude that the credibility of a mobile advertising message has a positive influence on consumers' attitude toward advertising via mobile devices and on the perceived advertising value of the consumer. Therefore;

> ***H 8:*** *Low credibility of advertising brand is negatively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.9 Confidentiality:

Confidentiality topic refers to privacy and consumer information security issues that are very important when using mobile devices in addressing the consumers. Application of permission marketing is required for confidentiality (Kent and Brandal 2003, Krishnamurthy 2000, Tezinde *et al* 2002). Prior to receiving advertising messages through a mobile device, consumers need to give permission to a marketer to send promotional messages in certain interest categories to them.

Typically, this permission is granted through a survey which the consumer is asked to fill out indicating his or her interest upon registering for a service. Then, the marketer will be able to match advertising messages with the interests of the consumer (Krishnamurthy 2001). Stewart and Pavlou propose that as a result of these processes, a new kind of interactivity, which often leads to marketers collecting, compiling, and using information about customers is allowed (Stewart and Pavlou 2002).

However, there is a trade-off between personalization and consumer control, in other words, gathering data necessary for tailoring messages, preventing irritation and maximization of personalization brings about privacy concerns. Corporate policies must pay attention to legalities such as electronic signatures, electronic contracts, and conditions for sending SMS messages. Dickinger *et al* (2004) argued that, before sending advertisements, advertisers should have permission and convince consumers to ‘‘opt-in’’. As mentioned before, the fear of spam is the strongest negative influence on consumer attitudes towards SMS advertising.

As a result of new regulations in the United States, people are allowed to keep their phone numbers when switching cellular carriers (CNN 2003). Known as mobile number portability, this application will be applicable in Turkey as well in a short period of time. Mobile number portability may reinforce fears of unwanted messages and misuse of personal data so; consumers may avoid registering for SMS based information services.

Especially, data provided to service provider 3rd party companies may increase concerns about confidentiality among consumer's personal data.

The fear of data misuse and the reception of unwanted mobile marketing messages are perceived as main risks in the context of mobile marketing. Clearly, all advertising companies have to aim to establish a well-founded basis of trust for mobile marketing as a generic form of marketing communication. This well-founded basis of trust is the major prerequisite for consumers to willingly permit the reception of advertising messages on their mobile phones and provide personal data for the personalization of those messages. Thus, as Bauer concludes, it is a prerequisite for consumers to accept mobile marketing (Bauer *et al* 2005).

After a simple registration process, consumer acceptance is gathered and this ensures sending relevant messages to an interested audience (Petty 2000). However, mobile phones cannot automatically distinguish between unsolicited messages and genuine communication so, unsolicited messages, commonly known as spam (Hinde 2003), inhibits user acceptance (Golem 2002).

Stratil and Weissenburger reports that unwanted messages are prohibited in some countries (Stratil and Weissenburger 2002) and regardless of their medium (e.g., fax, telephone, electronic mail, or mobile devices) they are annoying for consumers. Consumer's willingness to accept m-advertising is enhanced by regulations that guarantee consumer's privacy. Permission-based m-advertising delivered by a trusted source is considered more acceptable than that delivered by an unknown one (Leppäniemi and Karjaluoto 2005). In some countries including Turkey, where regulation is not clear yet, service providers, carriers and brands are responsible for preventing consumer's data from misusage.And Enders(2004) cite that, guidelines for responsible advertising are established by the mobile advertising industry in order to protect mobile phone users.

Consent is the main feature of these guidelines, i.e. consumers agree or opt-in to receive the advertisements. In addition, consumers must know clearly about what their personal

information is being used for, and if they wish, this information is removed from the advertiser's databases. As a result, finding ways to entice customers to opt into their campaigns is a necessity for mobile advertisers (Tawfik and Enders 2004).Therefore;

> ***H 9****: Privacy and personal information security concerns of customers are negatively associated with higher customer intention to join mobile advertising campaigns.*

3.2.1.10 Age:

Generally, mobile services are used heavily by young people (Dickinger *et al* 2004). Being communication device, mobile devices have become as much as a fashion accessory for them young people (Robins 2003). The attitude of younger consumers toward traditional advertising is more favorable in a number of dimensions. Looking at ads is enjoyable and comfortable for them (Shavitt *et al* 1998). It is not surprising that young people also show a very positive attitude toward mobile ads, whereas older consumers are more prudent (Kaasinen 2003).

Barnes argues that SMS is appropriate for advertising frequently purchased low-budget items because of its underlying technology (Barnes 2002). Young audiences are appropriate targets for SMS, which for example, announce events or support product launches. Considering that many services have a personalized nature, mobile marketing is more useful for introducing services rather than introducing physical goods (Dickinger *et al* 2004).

If young people are addressed, messages should be entertaining and include similarities with the abbreviations and spitfire conversational style typical of SMS and instant Internet messaging (Lee 2002).

In both North America and Europe, the 15 to 21 year-old age group heavily uses peer-to-peer SMS. The 15 to 25 year old age group shows enthusiasm in purchasing ringtones,

logos and wallpaper via Premium SMS. This age grouping is considered as the "sweet spot" for SMS, Premium SMS, and MMS marketing by marketers. A research study done by Leppäniemi and Karjaluoto also found a statistically significant difference between respondents' age and willingness to receive mobile marketing communications.

According to this result, the younger respondents are more willing to receive mobile marketing compared to the older ones. Most eager group to welcome mobile marketing was customers aged less than or equal to 18 years, while the customers aged 65 years or more were least willing (Leppäniemi and Karjaluoto 2005).

Clothing and music are among products that are likely to be targeted to the 15 to 21 year-old age group. As liquor advertising is banned from TV in the United States, liquor will be a possible advertising play for the over 21 age group. In Europe, peer-to-peer SMS usage extends through age 35. Also, SMS is used for B-to-B communication in Europe, whereas this is not the case in the U.S., because people there rely more on e-mail and voice communication. Mobile internet users in Western Europe are aged 33 on average. In the United States, the users in the 30 to 40 age-bracket are users of 3G services such as video clips and mobile TV, and they mostly look at stock quotes, news, and sports snippets. Increasing sophistication and prices of mobile content and entertainment will constitute a pressure on the average age to move upwards (VisionGain 2006).

Considering these facts, it can be hypothesized that the age and customer intention to join mobile advertising campaigns are correlated. It can be asserted that any mobile advertising campaign should be designed in accordance with customer’s age segment since the technology awareness and interest areas do change by age. Education and gender, which are the other variables influential on the preferences, are investigated as basis for additional hypothesis in following sections.

There is a conclusion that younger consumers value advertising messages via mobile devices to a higher extent than older consumers and also show a more positive attitude toward them. Therefore;

H 10: *Higher age of the customer is negatively associated with higher intention to join mobile advertising campaigns.*

3.2.1.11 Gender:

It has been found that Gender has a role in forming overall attitudes towards mobile phones. Thus, women's and men's perception of mobile phones and their usage are different (Dedeoglu 2004). Ling reports that mobile phones have different roles for different genders (Ling 2001). Considering ads, male consumers' attitudes are favorable than female consumers', in general (Shavitt *et al* 1998).

VisionGain 2006 report shows that, In Western Europe, the typical user of the mobile Internet and MMS is male, single, well-educated, and affluent (VisionGain 2006).

Gender might be one of the background factors on willingness to receive mobile marketing, and its effect will be investigated. Leppäniemi and Karjaluoto's study (2005) reports that 90.7 percent of men welcomed SMS marketing from the company whereas the corresponding number for females was 87.5 percent.

However, the attitude of the genders toward advertising via mobile devices has not been a subject to a wide coverage research so, it might be wrong to conclude that there are differences in their attitude toward this form of marketing. Having considered the different life styles comparing Turkey, Europe and US, a site survey will be necessary to show the relevance of a relation among gender and customer intention to participate to mobile advertising campaigns. Therefore;

H 11: *Customer intention to join mobile advertising campaigns is associated with gender of customer.*

3.2.1.12 Education:

Dedeoglu (2004) reports that the increase in educational level will also increase the level of negative attitude toward mobile phones. The study of Sarker and Wells (2003) supports these findings, and they argue that adoption and usage of mobile phones are influenced by economic conditions (Sarker and Wells 2003).

It is generally reported that the attitude of individuals with less education and lower income toward advertising is more favorable in general (Shavitt *et al* 1998).

Considering the above given facts, it is concluded that people with a higher level of education show a more negative attitude toward advertising via mobile devices and perceive a lower value. Therefore;

> ***H 12:*** *A high level of education is negatively associated with customer intention to join mobile advertising campaigns.*

3.2.1.13 Experience:

An individual's knowledge is central psychological determinant of consumer behavior. Existing knowledge is influential in the cognitive processes related to a consumer's decisions thus; it is also an important determinant of the acceptance decision (Bauer et al 2005). A consumer's existing knowledge is a determining factor in understanding the features and usage of an innovation. Therefore, existing knowledge has effects on the consumer's perception of the innovation's complexity (Moreau *et al* 2001).

Sheth indicates that the innovation is perceived to be less complex if the consumer is knowledgeable about the innovation itself or similar product to some extent (Sheth 1968). In this case, the knowledge about mobile communications is the relevant knowledge that reduces the perceived complexity of mobile marketing.

Mobile marketing is technologically based on mobile communications technology. Therefore, as a consumer becomes more familiar with mobile communications in general, he will face with less difficulty in using mobile marketing services.

Harnischfeger's diffusion theory contends that there can presumably be a negative relationship between the perceived complexity of an innovation and its acceptance. In order to comply with the conceptualization of the acceptance construct in the study, it can be assumed that there is a negative relationship between the perceived complexity of mobile marketing and the attitude towards it.

Since existing knowledge about mobile communications also negatively influences the perceived complexity of mobile (Harnischfeger *et al* 1999), it can thus be hypothesized that as the existing knowledge about mobile communications increases, the attitude towards mobile marketing becomes more positive.

However, the risk perception has a strong influence on consumers' willingness to adopt mobile marketing as an innovation. It can be assumed that there is a negative causal relationship between risk perception and attitude toward mobile marketing (Bauer *et al* 2005).

Consequently, it is marketers' task to minimize the risk perceptions in order to earn the right to interact with the customers. Addressing needs, permission, learning, and experience are necessary for this. If the customer's experience is not managed properly, they will not behave different from millions of other unsuspecting consumers who receive ads on their mobile phone, and upon looking at a new message and seeing an unwanted, irrelevant, and intrusive advertisement, they will delete the message. (Michel 2007).

The protection of the customer experience is a necessary task for mobile operators and they also have to limit the use of data to those situations where a real and a valuable utility exist for both the operator and the customer.

Operators should act together to create consistent platforms, so that end users can register their preferences and permission levels for a broad range of marketing communications.

Accordingly, previous experience of Turkish mobile users which has lead to both awareness and risk or benefits perceptions is considered as another factor that affects customer's intention to join coming mobile advertising campaigns.

Thus, having considered that bad past experiences has also an effect on the intention to join mobile advertising campaigns, it is better to construct the hypothesis in the following way, rather than just saying that existing knowledge about mobile communications positively affects the attitude towards mobile marketing. Therefore;

> ***H 13:*** *Customer's experience about mobile advertising is associated with customer intention to join mobile advertising campaigns.*

All the hypotheses are as following for a quick reference:

Table 3.1: Hypotheses of the study**.**

H 1	A high entertainment factor of mobile advertising is positively associated with higher customer intention to join mobile advertising campaigns.
H 2	High informativeness of an advertising message is positively associated with higher customer intention to join mobile advertising campaigns.
H 3	Ease of participation to advertising campaign is positively associated with customer higher intention to join mobile advertising campaigns.
H 4	Proposing reward is positively associated with higher customer intention to join mobile advertising campaigns.

Table 3.1.(contn'd).

H 5	Higher conformity with personal interests and needs is positively associated with higher customer intention to join mobile advertising campaigns.
H 6	Irritation caused by factors such as spamming and content of an advertising message is negatively associated with higher customer intention to join mobile advertising campaigns.
H 7	Low credibility of advertising brand is negatively associated with higher customer intention to join mobile advertising campaigns.
H 8	Privacy and personal information security concerns of customers are negatively associated with higher customer intention to join mobile advertising campaigns.
H 9	Higher age of the customer is negatively associated with higher intention to join mobile advertising campaigns.
H 10	Customer intention to join mobile advertising campaigns is associated with gender of customer.
H 11	A high level of education is negatively associated with customer intention to join mobile advertising campaigns.
H 12	Customer's experience about mobile advertising is associated with customer intention to join mobile advertising campaigns.
H 13	

The methodology which is used for hypothesis testing is given in the following section.

3.3 Methodology

Turkey is a country with 53 million GSM subscribers, which corresponds to mobile subscriber penetration of roughly 70 per cent, and this ratio is expected to exceed 80 per cent by the end of 2007 (Ciliv, 2007, MobilPlatform, 2007). Süreyya Ciliv, the CEO of Turkey's leading GSM operator Turkcell, declares in his March 2007 dated press release that

> *"Our total number of subscribers reached 31.8 million as at the end of 2006 and our market share stands at 60 per cent. As well as making us Turkey's leading operator, these figures also make us the third largest GSM operator in Europe in terms of subscriber numbers" (Ciliv 2007).*

On the other hand, according to the report of MobilPlatform, the average age of Turkish population is 29 years and they are mainly urban located (MobilPlatform 2007). As Telecommunication Authority reports, half of the population is below 25 years (Gungor, 2007). That is to say, this young population is open to innovation and the proportion of young people out of the country's total population is a great potential for continued growth in the market.

The number of mobile subscribers was 692,779 in 1996, since then this number has skyrocketed approximately 75 times in 11 years to more than 50 million subscribers. June 2007 report of Telecommunications Authority shows that penetration rate in mobile services is over 76% with 54, 7 million subscribers (Gungor 2007).

Besides, 3G licenses are still waiting to be granted on the tender which is dated on September 7, 2007 (Candan 2007). 3G and other new services will drive further growth in the sector.

Accordingly, it can be concluded that Turkish mobile market has one of the highest penetration rates of mobile phone users in Europe and therefore, very suitable for investigation on mobile marketing and advertising.

The study was conducted starting May 2007 over a six weeks period during which 252 mobile phone owners were interviewed. For this investigation, a pre-tested standardized questionnaire has been applied for the face-to-face interviews. The interviewed persons have been selected on the basis of a quota sample that is representative for the population live in Istanbul. These quotas are related to gender, age and education and based on TUIK year 2000 population census data.

Apart from the items investigating the age of the interviewee and the number of his/her advertising messages received, all measures were assessed via a 5-point-Likert-type scale ranging from "strongly agree" (5) to "strongly disagree" (1) (Likert 1932).

These scales were not reverse-coded before hypothesis testing because all the questions are structured in the same direction. Details are given in the following sections.

3.3.1 Sampling

Considered the fact that none of the access details of sampling frame is available in a database, non-probability random sampling with quota sampling method is applied. Sampling of the study is held at two levels:

Cluster sampling: In order to collect data about the interests, attitudes, predispositions and behaviors of the local area people, the area sampling, which is a form of cluster sampling, is used (Sekaran 2003, Cooper and Schindler 2003).

Şişli is the town of Istanbul, randomly selected among other five big districts to conduct the study. Şişli is in first 5 ranking in Turkey according to GDP. Also Şişli is in top15 among 32 Districts of Istanbul according to the populations given by Şişli Municipality (2006),

based on year 2000 census of population data. Figure 3.2 shows details about Şişli's demographics and GDP distribution among others (Şişli Municipality 2006).

İlçe Adı	Şehir Nüfusu
Adalar	16.171
Avcılar	214.621
Bağcılar	487.896
Bahçelievler	442.877
Bakırköy	222.336
Bayrampaşa	240.427
Beşiktaş	202.783
Beykoz	165.028
Beyoğlu	231.826
Eminönü	65.246
Esenler	344.428
Eyüp	237.210
Fatih	432.590
Gaziosmanpaşa	573.466
Güngören	273.915
Kadıköy	699.379
Kağıthane	317.238
Kartal	311.076
Küçükçekmece	459.804
Maltepe	335.539
Pendik	334.451
Sarıyer	214.377
Şişli	257.049
Tuzla	85.663
Ümraniye	394.132
Üsküdar	472.124
Zeytinburnu	228.786
Büyükçekmece	36.873
Çatalca	14.859
Silivri	40.210
Sultanbeyli	144.932
Şile	8.714
İstanbul	8.506.026

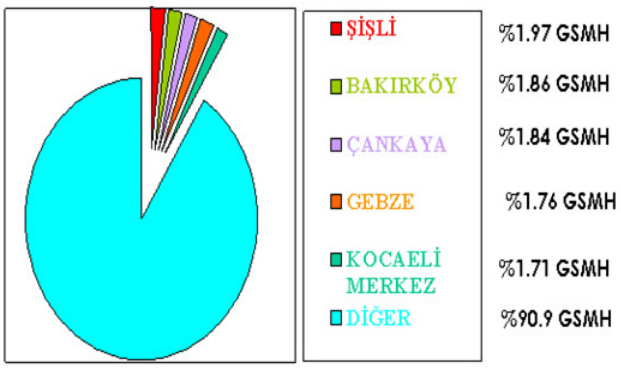


Figure 3.2: Şişli demographics and GDP distribution (Source: Şişli Municipality 2006 based on year 2000 data).

Quota Sampling: Because of the need for adequate representation of all subgroups in quota sampling,(Sekaran 2003), the quota that is given in Table 3.2 is derived in accordance with the demographic data gathered from TUIK (DIE) based on year 2000 population census results.

These quotas are related to gender, age and education and based on TUIK year 2000 population data. Table 3.2 shows planned and realized quota numbers (TUIK 2000). However, the sample may not be totally representative of the population, hence the generalizability of the findings will be restricted as the limitation of the sampling (Sekaran 2003).

The data given below (Table 3.2) is calculated according to year 2000 census of population results. TUIK reports that Şişli's total population was 270.674 in year 2000, while according to the figure in the web page of Governorship of Istanbul, it was 257.049 in 1997 (IBB 2006, TUIK 2000). Since the latest update records are held by TUIK, the official data gathered in official hardcopy format from them with demographic details is used for quota calculations. According to official document, the total number of Şişli population is 250.792 and this is used as the base of quota calculation.

As it is mentioned above, the distribution of Şişli population by age, education and gender is given in Table 3.2. The full list of the official data which is gathered from TUIK is provided in Appendix B.

Table 3.2: Population distribution of Şişli by age, education and gender (Source: TUIK 2000).

	Female				**Male**			
Age	No School	Primary	Junior& High	Univ. +	No School	Primary	Junior& High	Univ.+
14-19	1054	6996	4918	59	1165	8392	6596	46
20-29	411	10011	11523	6648	312	10060	14588	6379
30-39	1124	9627	6937	3749	296	9601	8311	4817
40-49	1119	6950	4971	2126	352	8125	5128	3082
50-59	1036	3896	3118	1272	537	4834	2482	2394

Total Sampling Frame: 250.792

Krejcie and Morgan (1970) provided a table that ensures a good decision model which greatly simplified the sample size decision. According to this generalized scientific guideline, for the research on a population frame among 75.000-1.000.000, sample size around 380 is adequate (Krejcie and Morgan 1970). Also, Sekaran suggests that sample sizes larger than 30 and less than 500 are appropriate for most research (Sekaran 2003). Tabachnick and Fidell, also propose N>50+8m (m is number of independent variables) formula in order to calculate minimum sample size (Tabachnick and Fidell 2001). Accordingly, the sample size exceeding 154 would be sufficient; considering the 13 independent variables defined in the model.

Accordingly 300 samples are targeted to run the survey and the calculated quota for the research study is given in Table 3.3.

Table 3.3: Calculated quota and final planned sample quota after curving.

Calculated Research Quota:

	Female				**Male**			
Age	No School	Primary	Junior& High	Univ. +	No School	Primary	Junior& High	Univ.+
14-19	1,2	8,3	5,8	0,7	1,3	10	7,8	0,05
20-29	0,5	11,9	13,7	7,9	0,3	12	17,4	7,6
30-39	1,3	11,5	8,2	4,4	0,3	11,4	9,9	5,7
40-49	1,3	8,3	5,9	2,5	0,4	9,7	6,1	3,6
50-59	1,2	4,6	3,7	1,5	0,6	5,7	2,9	2,8

Net sample size with the curving is achieved:

	Female				**Male**			
Age	No School	Primary	Junior& High	Univ. +	No School	Primary	Junior& High	Univ.+
14-19	1	8	6	1	1	10	8	0
20-29	1	12	14	8	0	12	17	8
30-39	1	12	8	4	0	11	10	6
40-49	1	8	6	3	0	10	6	4
50-59	1	5	4	2	1	6	3	3

TOTAL: 222

However, since the population census data is based on year 2000; exact number of 300 could not be reached since some of duplications might take place in the data. Accordingly, the study is realized with 222 samples as confirm with the quota calculation specifics. However, since some of the samples could not have been found at site (such as 14-17 years old, no education, and female) a much greater number of potential respondents are contacted. These kind of illogical samples are caused by again possible inconsistencies involved in TUIK data. As a result, in line with the advice of Malhotra and Birks (2003),

sample size is increased to reach the final sample size which is 252 with the quota distribution given in Table 3.4 (Malhotra and Birks 2003).

Table 3.4: Final sample quota distribution.

	Female				Male			
Age	**No School**	**Primary**	**Junior& High**	**Univ.+**	**No School**	**Primary**	**Junior& High**	**Univ.+**
14-19	0	8	13	0	1	10	10	0
20-29	1	12	14	8	0	15	21	8
30-39	1	14	8	5	0	12	10	6
40-49	1	8	8	4	0	9	10	4
50-59	1	6	5	2	2	6	6	3

TOTAL: 252

3.3.2 Data Collection and Instruments

The data collection and analysis included systematic collection of previous knowledge, research data and theoretical information from literature survey. A formal survey sheet is used for face to face survey to collect responses to our pre-defined questions regarding to mobile advertising. In the initial phase of questionnaire preparation, 19 question items were created on the basis of the preceding literature review. This questionnaire was pre-tested with a sample group of 34 respondents in Şişli area in Istanbul, because pre-tests are considered to be useful methods of refining research instruments (Craig and Douglas, 2000).

Descriptive statistics and reliability tests are performed on pilot study data. Coding and data entry mistakes are cleared (outliners) after max. and min. scores are checked and wrong entries are cleared. Mid-point scores are entered manually for the missing values.

The answers to negatively formed questions are transformed and recoded because, if a negatively worded question gets a response of 5, which denotes “strongly agree”, on a 5 point Likert scale, it actually means “strongly disagree” which is 1 on 5 point scale (Gegez 2005). Accordingly those items are reversed via using transcode function in SPSS. Based on the satisfactory alpha value (0,801), the original question form has been kept same for actual field-study. Some minor format changes have been done only.

Sekaran advises to interview university students and relatively highly educated people in order to get feedback regarding questionnaire and also format so, university students and relatively highly educated people are interviewed (Sekaran 2003). Thinking that the topic which is technology oriented, male and 20-39 age group is considered to provide relatively more comprehensive feedback for the pilot study. Descriptive and reliability statistics of pilot study are presented in Table 3.5.

Table 3.5: Descriptive and reliability statistics of pilot study.

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	8	25,0	25,8	25,8
	Male	23	71,9	74,2	100,0
	Total	31	96,9	100,0	
Missing	System	1	3,1		
Total		32	100,0		

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14-19	6	18,8	18,8	18,8
	20-29	11	34,4	34,4	53,1
	30-39	10	31,3	31,3	84,4
	40-49	4	12,5	12,5	96,9
	50-59	1	3,1	3,1	100,0
	Total	32	100,0	100,0	

Table 3.5.(cont'd)

Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ortaokul	5	15,6	15,6	15,6
	lise	20	62,5	62,5	78,1
	universite ve uzeri	7	21,9	21,9	100,0
	Total	32	100,0	100,0	

Reliability Statistics for Not-Recoded Data

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,801	,790	19

Cronbach's Alpha >0,7 is acceptable and >0,6 is questionable in the literature, the questionnaire format that is used in pilot study (alpha:0,801) is used for side-survey.

Based on the outcomes, questions are revised to clear-up the observed difficulties and possible confusions on part of respondent. Two of questions were merged for higher relevance. One more item is added into demographics section for conversion of "experience variable" into ratio scale. As a result, the final version of the questionnaire consists of 19 items, which correspond to the 13 independent variable of the model.

5-point Likert scale was used; except demographics related questions; to measure the constructs presented in the suggested model. Customer's intention to join mobile advertising was addressed by using a self-assessment item ("I can join mobile advertising campaigns when I consider their benefits and risks"), which respondents had to assess on a five-point differential scale from 1 (strongly disagree) to 5 (strongly agree). The conceptualization and development of the questionnaire was based on the existing literature.

Cooper and Schindler mention that a reliable Likert Scale would require 20-25 properly constructed questionnaire (Cooper and Schindler 2003), 19 items covering end-user

demographics and basically one question for each hypothesis were developed. Three variables are exceptional, which are measured by more than one question. The questionnaire was originally prepared in Turkish. It is attached as Appendix A.

The site-work with face to face interviews is performed on 1st of May-11th of June 2007 with 252 samples, following the pilot study performed in March 2007 with 34 samples.

3.3.3 Test of the Proposed Model

Since Likert Scale will be used and interval data will be produced in addition to some limited ratio data, regression analysis will be appropriate to test the hypothesis and evaluate the contribution of independent variables on dependent variable.

Following the completion of site survey study, each item is analyzed separately and some item responses are summed to create a score for a group of items. Brand Credibility, Irritation and Experience variables are summed to create a single score for testing.

There are different ideas in literature whether Likert scales can be considered as interval or ordinal. It is commonly used with interval procedures, provided the scale item has at least 5 and preferably 7 categories. Most researchers do not use a 3-point Likert scale with a technique requiring interval data. The fewer the number of points, the more likely the departure from the assumption of normal distribution, required for many tests. Here is a typical footnote inserted in researches using interval techniques with Likert scales:

> "In regard to our use of (insert name of procedure), which assumes interval data, with ordinal Likert scale items, in a recent review of the literature on this topic, Jaccard and Wan (1996) summarize, "for many statistical tests, rather severe departures (from intervalness) do not seem to affect Type I and Type II errors dramatically." Jaccard, James and Choi K. Wan (1996).

Likert scales can be considered as ordinal but their use in statistical procedures assuming interval level data is commonplace for the reason given above.

According to Gegez (2005), if the data is interval, regression analysis is the most common and useful parametric test method to investigate the relationship among variables. Correlation analysis can also be appropriate to investigate the relation; however Pearson Correlation Coefficient (r) can only show the magnitude and direction of relation. Even though the correlation coefficient is an indicator of the strength of the relationship between variables, it gives no idea of how much of the variance in the dependent variable will be explained when several independent variables to simultaneously influence it (Sekaran 2003).

In order to analyze associate relationships between one or more independent variables which are a metric-dependent, regression analysis serves as a powerful and flexible procedure (Malhotra and Birks 2003). When estimation or prediction of corresponding dependent variable values is made using the observed values of independent variables, the process is called simple prediction. If there is more than one dependent variable, the outcome is a function of multiple predictors. Regression analysis technique is used to make simple and multiple predictions (Çakıcı *et al* 2000, Cooper and Schindler 2003).

Having considered that there is a single dependent variable and there are more than one independent variables in the proposed model, multiple regression will be appropriate to see the direction and magnitude of relation among them. One predictor is jointly regressed against to the dependent variable and this kind of analysis is known as multiple regression (Çakıcı *et al* 2000, Gegez 2005, Sekaran 2003). Molhotra and Birks also advises to use Multiple Regression technique when there is need for a statistical technique that simultaneously develops when R-square value, F statistic and its significance level are known, the results can be interpreted. Significance level , $p<0,05$ is accepted in this study meaning that there is less than 5% chance of this not holding true. In other words, relationships among dependent and independent variables are tested and interpreted while probability of those relationships are not being true is 5% or less. That is, over 95% of the

time it is expected those correlation to exist. Other critical values are calculated with SPSS Ver. 13 statistical program for interpretation.

Stepwise selection method is used for selecting variables for the equation. In stepwise method, which combines forward and backward sequential approaches, the independent variable that contributes the most to explaining the dependent variable is added first, then subsequent variables are added based on how much they incrementally contribute to the first variable and whether they meet the criterion for entering the equation. If variables meet the removal criterion, which is a larger significance level than the entry criterion, they may be removed at each step (Cooper and Schindler,2003). These criteria are set as the significance level is ≤0,05 for entry and ≥0,10 for removal for this study.

3.3.4 Evaluation of Empirical Study

Sekaran (2003), advises that the data analysis procedure should include three steps: getting a feel for the data, testing the goodness of data and testing the hypotheses developed for the research.

Accordingly, the frequency distributions for the demographic variables, maximum and minimum values, the mean, standard deviation, range and variance on the other dependent and independent variables are obtained before testing the goodness of data and hypotheses. Table 3.6 shows descriptive statistics of the research study.

Coding mistakes that occurred during data entry are cleared according to min-max values. Missing values are entered as mid-scores. Following those basic revisions, frequencies of demographics are obtained as given in Table 3.7.

Table 3.6: Descriptive statistics of the research study.

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Brand Credibility	252	8,00	2,00	10,00	7,5198	1,47611	2,179
Experience	252	900,00	,00	900,00	496,4286	312,16240	97445,361
Irritation	252	8,00	2,00	10,00	7,7143	1,62087	2,627
Entertainment	252	4	1	5	2,65	,993	,985
Confidentiality	252	4	1	5	4,02	,951	,904
Intention	252	4	1	5	2,88	,937	,878
Gender	252	1	1	2	1,53	,500	,250
Age	252	45	14	59	32,07	11,945	142,677
Education	252	4	1	5	3,12	1,178	1,388
Informativeness	252	4	1	5	2,88	1,066	1,136
Ease of Join	252	4	1	5	2,95	1,221	1,491
Rewards	252	4	1	5	3,11	1,322	1,749
Interactivity	252	4	1	5	3,14	1,097	1,204
Personalization	252	4	1	5	3,56	1,018	1,036
Valid N (listwise)	252						

Table 3.7: Frequency distributions for the demographic variables.

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-(14-19)	42	16,7	16,7	16,7
	2-(20-29)	79	31,3	31,3	48,0
	3-(30-39)	56	22,2	22,2	70,2
	4-(40-49)	44	17,5	17,5	87,7
	5-(50-59)	31	12,3	12,3	100,0
	Total	252	100,0	100,0	

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-Female	119	47,2	47,2	47,2
	2-Male	133	52,8	52,8	100,0
	Total	252	100,0	100,0	

Table 3.7.(cont'd)

	Education	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-No School	7	2,8	2,8	2,8
	2-Primary School	100	39,7	39,7	42,5
	3-Junior School	41	16,3	16,3	58,7
	4-High School	64	25,4	25,4	84,1
	5-University+	40	15,9	15,9	100,0
	Total	252	100,0	100,0	

S14.For how long are you using mobile phones ?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-(< 4 years)	58	23,0	23,0	23,0
	2-(between 4 and 10 years)	129	51,2	51,2	74,2
	3-(>10 years)	65	25,8	25,8	100,0
	Total	252	100,0	100,0	

S15.How often you get a mobile advertising message?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-never	22	8,7	8,7	8,7
	2- 5 and less per month	80	31,7	31,7	40,5
	3-more than 5 per month	150	59,5	59,5	100,0
	Total	252	100,0	100,0	

Most of the respondents belonged to the age categories 20-29 (31 percent) and 30-39 (22 percent). A total of 133 (52,8%) of these participants were male and 119 (47,2%) were female. The average age was 32,07 years, ranging from 14 to 59 years.

39,7 % of respondents were primary school graduates, while 25,4 % were high school graduates.

The majority of respondents (51.2%) own a mobile phone between 4 and 10 years while majority of them (59,5%) gets more then 5 mobile advertising messages per month.

Slightly over 92% of the respondents had received some kind of mobile marketing message and have an experience regarding the concept.

Gegez (2005) indicates that, crosstabulation technique should also be used in order to compare the frequency distribution of two particular classification variables. In this technique tables having rows and columns that correspond to the values of each variable categories are used (Cooper and Schindler 2003). Gender and Intention to participate in mobile advertising campaigns crosstabulation table is given in Table 3.8.

Table 3.8: Crosstabulation of gender and intention to participate in mobile advertising.

Intention * Gender Crosstabulation

			Gender		
			1-Female	2-Male	Total
Intention	1-Strongly Disagree to Participate	Count	6	7	13
		% of Total	2,4%	2,8%	5,2%
	2-Disagree to Participate	Count	29	56	85
		% of Total	11,5%	22,2%	33,7%
	3-Neutral	Count	44	32	76
		% of Total	17,5%	12,7%	30,2%
	4-Agree to Participate	Count	38	37	75
		% of Total	15,1%	14,7%	29,8%
	5-Strongly Agree to Participate	Count	2	1	3
		% of Total	,8%	,4%	1,2%
Total		Count	119	133	252
		% of Total	47,2%	52,8%	100,0%

As it is seen in Table 3.8, 56 male respondents (22,2% of total respondents) disagree to participate to mobile advertising campaigns while only 29 female respondents (11,5% of total respondents) disagree to participate. It might be important to underline that 30,2% of the total respondents are neutral towards participating to mobile advertising campaigns, and majority of neutrals (17,5) are females. This could be interpreted in a way that respondents have a low awareness level to be very sure about benefits and risks of mobile campaigns in order to decide to join or not. Split of disagree to participate, agree to participate and neutrals are almost equally distributed: 33,7%, 30,2% and 29,8% respectively. This means that neutrals with the percentage of 30,2% can become a huge potential for mobile advertising success if their intention to join mobile marketing campaigns can be increased.

Having considered the frequency distributions in Table 3.9, among all *neutral* respondents 9,9% belong to 20-29 age group while 5,6% come from 14-19 and 6% come from 30-39 age groups. Since the quota distribution was based on population census, we can generalize that marketers should target 20-29 age groups first to unleash the potential of mobile advertising. Since this age group has also the highest "disagree to participate" percent among all, their acquisition with targeted advertising campaigns can also be the first priority for the marketers.

Table 3.9: Crosstabulation of age and intention to participate in mobile advertising.

Intention * Age Interval Crosstabulation

			Age Interval					
			1-Age14-19	2-Age 20-29	3-Age 30-39	4-Age 40-49	5-Age 50-59	Total
Intention	1-Strongly Disagree to Participate	Count	5	2	1	2	3	13
		% of Tota	2,0%	,8%	,4%	,8%	1,2%	5,2%
	2-Disagree to Particip	Count	10	26	20	15	14	85
		% of Tota	4,0%	10,3%	7,9%	6,0%	5,6%	33,7%
	3-Neutral	Count	14	25	15	15	7	76
		% of Tota	5,6%	9,9%	6,0%	6,0%	2,8%	30,2%
	4-Agree to Participate	Count	12	25	19	12	7	75
		% of Tota	4,8%	9,9%	7,5%	4,8%	2,8%	29,8%
	5-Strongly Agree to Participate	Count	1	1	1	0	0	3
		% of Tota	,4%	,4%	,4%	,0%	,0%	1,2%
Total		Count	42	79	56	44	31	252
		% of Tota	16,7%	31,3%	22,2%	17,5%	12,3%	100,0%

A basic research requires Cronbach's alpha to be higher than 0.7-0.8. According to Peterson (1994) the Cronbach's alpha value varying between 0.5 and 0.95 can be accepted, depending on the type of research. Cronbach's Alpha value is 0,73 for the variables excluding demographics (age, gender, education, experience) while it is computed as 0,67 when all the variables of the model are included. Accordingly, the model's internal consistency reliability is found satisfactory to indicate how well the items measuring the concept hand together as a set. Cronbachs's alpha values for different variable sets are shown in Table 3.10.

Table 3.10: Cronbachs's alpha values for different variable sets.

Reliability Statistics

Cronbach's Alpha	N of Items
,665*	17

*all variables are included

Reliability Statistics

Cronbach's Alpha	N of Items
,731*	12

*demographics are excluded

The objective of the survey was to investigate end-user's willingness to participate in mobile advertising campaigns and to gain insights into factors that are influencing their intention to join the campaigns. Independent variables are jointly regressed against to the "Customer Intention to Participate in Mobile Advertising Campaigns" which is defined as dependent variable in the model. Regression Coefficients, R-square value, F statistics and t statistics that are given in Table 3.11, respectively.

Table 3.11: Results of stepwise regression analysis**.**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,543[a]	,295	,292	,788	,295	104,608	1	250	,000
2	,613[b]	,376	,371	,743	,081	32,285	1	249	,000
3	,635[c]	,403	,396	,728	,027	11,425	1	248	,001
4	,654[d]	,428	,419	,715	,024	10,562	1	247	,001
5	,664[e]	,441	,429	,708	,013	5,671	1	246	,018

a. Predictors: (Constant), Interactivity

b. Predictors: (Constant), Interactivity, Informativeness

c. Predictors: (Constant), Interactivity, Informativeness, Entertainment

d. Predictors: (Constant), Interactivity, Informativeness, Entertainment, BrandCredibility

e. Predictors: (Constant), Interactivity, Informativeness, Entertainment, BrandCredibility, Personalization

Table 3.11.(cont'd).

ANOVA [f]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65,025	1	65,025	104,608	,000[a]
	Residual	155,403	250	,622		
	Total	220,429	251			
2	Regression	82,862	2	41,431	74,991	,000[b]
	Residual	137,567	249	,552		
	Total	220,429	251			
3	Regression	88,920	3	29,640	55,896	,000[c]
	Residual	131,508	248	,530		
	Total	220,429	251			
4	Regression	94,313	4	23,578	46,179	,000[d]
	Residual	126,115	247	,511		
	Total	220,429	251			
5	Regression	97,155	5	19,431	38,776	,000[e]
	Residual	123,273	246	,501		
	Total	220,429	251			

a. Predictors: (Constant), Interactivity

b. Predictors: (Constant), Interactivity, Informativeness

c. Predictors: (Constant), Interactivity, Informativeness, Entertainment

d. Predictors: (Constant), Interactivity, Informativeness, Entertainment, BrandCredibility

e. Predictors: (Constant), Interactivity, Informativeness, Entertainment, BrandCredibility, Personalization

f. Dependent Variable: Intention

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1,425	,151		9,449	,000		
	Interactivity	,464	,045	,543	10,228	,000	1,000	1,000
2	(Constant)	1,044	,157		6,642	,000		
	Interactivity	,318	,050	,372	6,368	,000	,734	1,362
	Informativeness	,292	,051	,332	5,682	,000	,734	1,362
3	(Constant)	,899	,160		5,620	,000		
	Interactivity	,278	,050	,326	5,541	,000	,695	1,439
	Informativeness	,199	,057	,227	3,482	,001	,567	1,764
	Entertainment	,202	,060	,214	3,380	,001	,602	1,661
4	(Constant)	1,680	,287		5,851	,000		
	Interactivity	,282	,049	,330	5,719	,000	,695	1,440
	Informativeness	,177	,057	,201	3,122	,002	,558	1,791
	Entertainment	,211	,059	,224	3,601	,000	,601	1,665
	BrandCredibility	-,100	,031	-,158	-3,250	,001	,984	1,016
5	(Constant)	1,511	,293		5,153	,000		
	Interactivity	,223	,055	,261	4,070	,000	,552	1,810
	Informativeness	,149	,057	,170	2,602	,010	,535	1,868
	Entertainment	,203	,058	,215	3,484	,001	,598	1,671
	BrandCredibility	-,104	,031	-,164	-3,398	,001	,981	1,019
	Personalization	,136	,057	,148	2,381	,018	,589	1,697

a. Dependent Variable: Intention

Table 3.12: Excluded variables with stepwise regression**.**

Excluded Variables [f]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Entertainment	,319[a]	5,615	,000	,335	,780	1,282	,780
	Informativeness	,332[a]	5,682	,000	,339	,734	1,362	,734
	Ease of Join	,260[a]	4,038	,000	,248	,640	1,563	,640
	Rewards	,198[a]	2,923	,004	,182	,594	1,684	,594
	Personalization	,232[a]	3,553	,000	,220	,635	1,575	,635
	Confidentiality	-,092[a]	-1,743	,083	-,110	1,000	1,000	1,000
	Gender	-,049[a]	-,917	,360	-,058	,978	1,023	,978
	Age	-,049[a]	-,928	,354	-,059	,995	1,005	,995
	Education	,110[a]	2,092	,037	,131	1,000	1,000	1,000
	Experince	-,026[a]	-,480	,632	-,030	,999	1,001	,999
	Irritation	-,143[a]	-2,730	,007	-,170	,999	1,001	,999
	BrandCredibility	-,179[a]	-3,448	,001	-,213	,999	1,001	,999
2	Entertainment	,214[b]	3,380	,001	,210	,602	1,661	,567
	Ease of Join	,070[b]	,881	,379	,056	,403	2,483	,403
	Rewards	,115[b]	1,722	,086	,109	,558	1,792	,539
	Personalization	,150[b]	2,330	,021	,146	,593	1,685	,570
	Confidentiality	-,056[b]	-1,108	,269	-,070	,983	1,017	,722
	Gender	-,026[b]	-,504	,615	-,032	,971	1,030	,729
	Age	-,017[b]	-,340	,734	-,022	,982	1,018	,725
	Education	,078[b]	1,551	,122	,098	,986	1,014	,724
	Experince	-,007[b]	-,132	,895	-,008	,995	1,005	,731
	Irritation	-,119[b]	-2,395	,017	-,150	,992	1,008	,729
	BrandCredibility	-,149[b]	-3,004	,003	-,187	,986	1,014	,725
3	Ease of Join	,038[c]	,489	,626	,031	,397	2,520	,397
	Rewards	,064[c]	,947	,344	,060	,524	1,908	,524
	Personalization	,137[c]	2,164	,031	,136	,591	1,692	,545
	Confidentiality	-,050[c]	-1,011	,313	-,064	,982	1,019	,561
	Gender	-,002[c]	-,034	,973	-,002	,952	1,051	,567
	Age	-,016[c]	-,313	,754	-,020	,982	1,018	,562
	Education	,072[c]	1,451	,148	,092	,985	1,016	,563
	Experince	-,005[c]	-,109	,913	-,007	,995	1,005	,565
	Irritation	-,101[c]	-2,051	,041	-,129	,978	1,023	,567
	BrandCredibility	-,158[c]	-3,250	,001	-,203	,984	1,016	,558
4	Ease of Join	,026[d]	,342	,732	,022	,396	2,526	,396
	Rewards	,050[d]	,746	,457	,047	,522	1,916	,522
	Personalization	,148[d]	2,381	,018	,150	,589	1,697	,535
	Confidentiality	-,015[d]	-,308	,758	-,020	,932	1,073	,555
	Gender	-,010[d]	-,204	,839	-,013	,949	1,054	,558
	Age	-,010[d]	-,208	,835	-,013	,981	1,019	,554
	Education	,080[d]	1,659	,098	,105	,982	1,019	,554
	Experince	,011[d]	,230	,819	,015	,984	1,016	,557
	Irritation	-,049[d]	-,932	,352	-,059	,842	1,188	,558
5	Ease of Join	,014[e]	,182	,856	,012	,394	2,538	,394
	Rewards	,038[e]	,566	,572	,036	,519	1,929	,458
	Confidentiality	-,003[e]	-,059	,953	-,004	,922	1,085	,534
	Gender	-,026[e]	-,517	,606	-,033	,933	1,072	,535
	Age	-,005[e]	-,112	,911	-,007	,979	1,021	,532
	Education	,070[e]	1,450	,148	,092	,973	1,028	,533
	Experince	-,008[e]	-,154	,878	-,010	,958	1,043	,532
	Irritation	-,048[e]	-,927	,355	-,059	,842	1,188	,535

a. Predictors in the Model: (Constant), Interactivity

b. Predictors in the Model: (Constant), Interactivity, Informativeness

c. Predictors in the Model: (Constant), Interactivity, Informativeness, Entertainment

d. Predictors in the Model: (Constant), Interactivity, Informativeness, Entertainment, BrandCredibility

e. Predictors in the Model: (Constant), Interactivity, Informativeness, Entertainment, BrandCredibility, Personalization

f. Dependent Variable: Intention

As described in article 3.3.3 “Test of the Proposed Model”, stepwise regression method is applied and accordingly SPSS proceeded as exactly as does forward regression, except that at each stage it removed any variable whose partial F value indicates that this variable does

not contribute, given the present set of independent variables in the model. Like forward regression it stopped when the "best" variable among those remaining produces an insignificant increase in R^2.Exluded variables with stepwise regression are given in Table 3.12.

Data from 13 independent variables (X's), as well as from Y, are used as input to stepwise regression program. Outcome from this analysis is shown in Table 3.11 and Table 3.12. Accordingly, independent variables that do not contribute significantly are excluded from the model and regression equation $Y= \beta0+\beta1X1+ \beta2X2+\ldots +\beta kXk+ e$ will be formed with only the significantly contributing independent variables, where Y is dependent variable (Customer Intention to Participate in Mobile Advertising Campaigns), X1, X2,..Xk are predictors (independent variables) and e is the error associated with the model (Kvanli *et al 2003,*Çakıcı *et al* 2000*).*

In the upper portion of the Table 3.11, there are five models. In Model 1, Interactivity is the first variable to enter the equation. This models constant and the variable Interactivity. Model 2 adds the Informativeness variable to interactivity. Model 3 consists of interactivity, informativeness and entertainment while Model 4 adds brand credibility to them. Finally, Model 5 includes interactivity, informativeness, entertainment, brand credibility and personalization variables that are contributing the equation significantly in addition to the constant, which is the value of Y while all the X values are zero.

As it can be seen from Model 1, Interactivity explains 29,5 percent of customer intention to participate in mobile advertising campaigns (see the R^2 column). This is increased by 8 percent in Model 2, when informativeness is added (see R^2 change column). When entertainment, brand credibility and personalization are added into equation, 44 percent of customer intention to participate in mobile campaigns is explained by Model 5.

Adjusted R^2 for Model 5 is 0,429. The purpose of adjusting R^2 is to reflect model's goodness of fit for the population (Cooper and Schindler 2003). The net effect of this adjustment is to reduce R^2 from 0,441 to 0,429. R^2, which varies between 0 and 1, measures

the strength of association among variables and signifies the proportion of the total variation in Y that is accounted for by the variation in Xs (Malhotra and Birks 2003). In other words, if R^2 is 1, then 100% of the total variation has been explained. In practice, R^2 does not equal to 1, but the main point is that the larger the value of R^2 is, the more desirable a regression application is (Kvanli *et al* 2003,Çakıcı *et al* 2000).

The relatively low R^2 value (0,44) can be increased by assessment of other variables that might have influence on customer intention to participate in mobile advertising and adoption of measurement scales in future studies. Also, avoiding the usage of a too small sample in the model is another method to increase R^2 value. Another method is a general rule of thumb suggested by Kvanlı *et al* (2003), that is to use a sample containing at least three times as many observations as the number of predictor variables in the model. In this study, sample size, which is 252, seems sufficient from that perspective.

Analysis of variance measures whether or not the equation represents a set of regression coefficients that, in total, are statistically significant from zero (Çakıcı *et al* 2000). The null hypothesis for the overall test is that the coefficient of multiple determination in the population, which is R^2 of population, is zero. It is equivalent to:

$$H0: \beta1=\beta2=\beta3=\ldots..0$$
$$H1:\beta1\neq\beta2\neq\beta3\neq\ldots\ldots0$$

In significance testing, the significance of overall regression equation as well as specific partial regression coefficients is tested. In order to do the overall test, F statistics with k and n-k-1 degrees of freedom are used, while k here represents the number of predictive variables (independent variables) in the model. F value in the model indicates whether the value of R^2 is significantly large. If H0 is rejected, it means that the value of R^2 is significantly large, so this group of predictive variables has at least some predictive ability for predicting Y (Kvanli *et al* 2003).

If the calculated F statistic exceeds the critical value of F which is obtained from statistical F test tables, at α=0,05, the null hypothesis is rejected. Rejection of the null means that the value of one or more population partial regression coefficients is different from 0 (Malhotra and Birks 2003). Testing for the significance of the βs can be done by t tests which are similarly used to test the bivariate case. In other words, the usage of F test is significant in order to understand the goodness of fit for the model, and separate t-tests are used to evaluate each of the independent variables (Cooper and Schindler 2003).

In Table 3.11, this concept is developed sequentially concluding the F test of the stepwise regression model for the study. Based on the results presented in the table, statistical evidence of linear relationship between variables is found. The critical value of F is found as 1,75 with degrees of freedom for the numerator equaling k, which is 13, and for the denominator, n-k-1 which is 238 where n for Model 5 is 252 observations. Thus d.f. (13; 238). The alternative hypothesis is accepted with calculated F (5,6) value is higher than the critical value of F (1,75). Accordingly, Model 5 is statistically significant at less than the 0.05 significance.

The column headed "t" measures the statistical significance of each of the regression coefficients. All the regression coefficients are judged to be significantly different from zero (Cooper and Schindler 2003, Çakici *et al* 2000).Usually two-tailed t test is done with n-k-1 degrees of freedom, where k is number of independent variables, which is one in this case. It means that only whether or not the particular independent variable contributes to the prediction of dependent variable is tested, but the direction (positive or negative) of this relationship is not concerned about (Kvanli *et al* 2003). It can be seen from statistical t test critical value tables that, the critical value of t with 250 degrees of freedom and α=0,05 is 1,96 for a two tailed test.

Since the calculated values of t for interactivity, informativeness, entertainment, brand credibility and personalization variables are larger than the critical value of t, d.f (1;250), $p<0,05$; the null hypothesis is rejected. It means that a significant linear relationship exists between the dependent variable Y (customer intention to participate in mobile advertising)

and independent variables (interactivity, informativeness, entertainment, brand credibility and personalization) placed in the Model 5 (Malthotra and Birks 2003). It can also be seen from Table 3.12 that independent variables that have smaller t values than 1,96 are excluded from the model in stepwise regression.

In sum, it can be said that regression coefficients are both individually and jointly statistically significant in Model 5.

If there are large values such as 10.0 or more in VIF column (Variable Inflation Factor), it usually suggests collinearity or multi-collinearity (Cooper and Schindler 2003). Having considered the calculated relatively small values for the five predictors in Model 5, multi-collinearity is not a problem.

3.4 Discussions on Detailed Findings

Results from the site survey offer insights about the antecedents of customer intention to participate in mobile advertising. Stepwise multiple regression technique is used to explain variation in customer intention to join mobile advertising campaigns in terms of variation in thirteen independent variables that are defined in the model. Figures 33, 34 and 35 depict the corresponding descriptive statistics and regression analysis results. Accordingly, five out of the 13 independent variables seem to have direct and main effects on the dependent variable.

Hypothesis 1 (Entertainment) : It stated a high entertainment factor of mobile advertising is positively associated with higher customer intention to join mobile advertising campaigns. This hypothesis was supported by the data. The partial regression coefficient for intention attached to entertainment is 0,203 with a β coefficient of 0,215; calculated t value is 3,88 (critical value of t=1,96 < calculated t=3,88; d.f (1,250), p<0,05) which highlights a positive and significant relationship. Hence there is a significant linear

relationship between the dependent variable Y (customer intention to participate in mobile advertising) and independent variable X3 (entertainment).

The strong relationship between entertainment and consumer's intention to participate mobile advertising is confirmed by other studies. Different empirical investigations point out that entertainment has turned out to increase advertising value (Haghirian *et al* 2005b). The results are in line with Ducoffe's results of 1996 which showed that the same relationship between value and attitude occurs in web advertising (Ducoffe 1996). For example, the study of Ferrazzi *et al* (2003) mentions those entertaining games that are combined with sales messages are useful to encourage dialogs with customers and project product images. If an online advertising is enriched with entertaining elements, recipients evaluate it more positively and show higher intention to revisit the homepage rather than web sites without entertainment features (Raney *et al* 2003).

Hypothesis 2 (Informativeness): It highlights that high informativeness of an advertising message is positively associated with higher customer intention to join mobile advertising campaigns. Informativeness of the advertising message turns out to be another strong influential factor on consumers' intention to participate in mobile advertising campaigns in accordance with the data and test results (β=0,149 and calculated t=2,602 which is higher than the critical t value=1,96; d.f (1,250),$p<0,05$). Accordingly, informativeness will be placed in regression equation as X2.

Providing information via mobile devices is obviously another dominant influencing factor on positive attitude towards campaigns. Stewart and Pavlou (2002) indicate that interactive media, like the Internet, is important as an information broker that allows "the customer to acquire real-time account information that was previously not available". They further conclude that this may be perceived as an added value the consumer may even be willing to pay for in some cases.

According to the study of Salo *et al* (2004) about sport event spectators, specifically, the most valuable information during the game was found be downloads of video material and

statistics from the ongoing game, whereas video clips from the audience, cheerleader cards, or information concerning the opposite team and coaches were not evaluated as so valuable. In addition, the greatest benefit is probably received by sports lovers not attending the sports events, as the highlighter of informativeness of mobile marketing messages.

Moreover, the quality of information may represent a more crucial role. Information quality is determined primarily by accuracy, timeliness, and usefulness (Siau and Zixing Shen 2003).

On the other hand, according the findings of the study by Drossos *et al* (2007), the content of information is not found to significantly affect the dependent variable. Different from the study of Drossos, questionnaire which is used in this study was also referring to sufficient information about content, thus content of information is also an antecedent for customer intention to participate in mobile advertising for respondents.

Hypothesis 3 (Ease of Join) : It states that ease of participation to advertising campaign is positively associated with higher customer intention to join mobile advertising campaigns, and this hypothesis is not supported by the data. Contribution of this variable to regression equation is not mathematically significant (calculated t=0,182 < critical t =1,96,d.f(1,250),p<0,05), so stepwise regression method has removed this variable from the model. Having considered the regression coefficient B=0,014, there is still a positive relation among ease of join and customer intention to join mobile advertising, but this is not statistically significant. This is surprisingly different from what literature advises as explained in article 3.2.2.3 of this document. This result might be obtained because current mobile experience of Turkish users are basically based on SMS push campaigns, which are relatively very easy to join and multimedia enabled complex campaigns are not started because of supporting high speed 3G networks are not in service yet. Accordingly, Turkish users might not be aware of how complex mobile advertising campaigns are and they might have thought about SMS push campaigns, which are the most primitive mobile advertisers, while answering the respective question.

Hypothesis 4 (Reward) : Hypothesis 4 states that proposing reward is positively associated with higher customer intention to join mobile advertising campaigns. It was expected to be found that the use of incentive positively influenced the dependent variable. As Barwise and Strong (2002) agree, users claim a reward for receiving SMS advertisements. Moreover, the use of incentive alleviates the effects of the negative attitude towards SMS advertising in general on the dependent variables. The hypothesis is further supported by the work of Tsang *et al* (2004). Drossos *et al* (2007) also found that if incentives in SMS advertisements are used, it results in more positive attitudes and purchase intentions, but the use of incentives for the specific product type could not positively influence attitude towards the brand.

However, regression results shown in Table 3.12 show that variation in rewards variable has no significant contribution to variation in customer intention to participate in mobile advertising, since the calculated t value=0,572 is lower than the critical t value which is already found as 1,96. B=0,38 shows there is a positive relation among the variables, however as it is mentioned, it not statistically significant.

This finding is somewhat confusing compared to other studies in the field, which suggest rewards stores as one of the most appreciated features of mobile marketing (Nokia 2002, Saunders 2003). On the other hand, Karjaluoto *et al* (2004) advocate that people evaluate information about work and hobbies as the most valuable, while they give the least priority to discounts to stores as reward. A similar result that is obtained in this study might be interpreted in a way that, Turkish users' experience with rewards given by mobile advertising campaigns might not have been appealing so far. It is possible that users see a very low chance to win lottery that was the most popular way of arranging mobile advertising campaigns in past years. So that, rewards might have an insignificant effect on customers' intention to participate.

Hypothesis 5 (Interactivity): Interactivity of mobile advertising is positively associated with higher customer intention to join mobile advertising campaigns. So, in relation with hypothesis 5 it is observed that there is a significant contribution of interactivity to

regression equation. In other words, calculated t value which is 4,07 shows that B=0,223 regression coefficient is statistically significant and therefore it can be concluded that there is a positive linear relationship between the dependent variable, customer intention to participate in mobile advertising (Y) and independent variable: interaction (X1). For X1, the highest t value indicates that interactivity is an excellent predictor of customer intention to join mobile advertising.

This was expected as described in article 3.2.1.5 of this document based on the studies concerning interactivity in mobile advertising which show that interactivity is a strong cue aiding the persuasive function of online ads. However, Drossos *et al* (2007) made a different prediction that there is a negative influence of interactivity and this was explained by the nature of product involved in experiments.

Hypothesis 6 (Personalization) : Kotler argues that the biggest challenge of m-marketing is still to present the m-service or m-ads in a way that makes the customers think that particular content caters to their need and want to buy it, thereby generating money for the company who offered the experiences needed by the consumer (Kotler 2000). Hypothesis 6 states that higher conformity with personal interests and needs is positively associated with higher customer intention to join mobile advertising campaigns. The hypothesis is supported by the data. The mean value for personalization variable was 3,56 on a five-point Likert scale, with 1 the least favorable and 5 the most favorable. This means if the mobile advertising messages are designed and sent in accordance with the customer's interest areas and needs, there is a tendency to join mobile advertising campaigns. Personalization is one of the highest "agree" scorers according to mean values and calculated t value (2,381), which indicates the regression coefficient B=0,136 is statistically significant. Accordingly, personalization is one of the independent variables (X5) that has statistically significant contribution to the explanatory power of the regression equation. Salo *et al* (2004) find similar results that customers are more likely to be willing to receive mobile marketing, if it is about an area of their strong interest.

Hypothesis7 (Irritation) : Hypothesis 7 states that irritation caused by factors such as spamming and content of an advertising message is negatively associated with higher customer intention to join mobile advertising campaigns. A high frequency of exposure seems to decrease the value of advertising. Scientific literature (Ducoffe 1995) supports this hypothesis by assuming that consumers who are receive ads repeatedly are less informed since they are already familiar with the content. Irritation is a phenomenon that is similar to reactance, which refers to the tendency of consumers to refuse advertisements if they find the advertisement is too intrusive (Kroeber-Riel and Weinberg 2003).

Haghirian *et al'*s (2005b) study also shows that irritation has a negative influence the value of mobile advertising, however correlation coefficient is low, which means that influence of irritation is not as strong as the influence of the variables entertainment and informativeness.

Contrary to the expectations, irritation factor caused by spamming and content advertising messages did not lead to a significant negative effect on customer intention to join mobile advertising. Negative regression coefficient (B= -0,48) shows the irritation is negatively associated with dependent variable at some level, however calculated t value (0,927) shows it is not statistically significant. In sum, the hypothesis is partially supported by the data.

However, the relevance of the advertisements to the target group and their ability to provide value to the recipient decreases the perception of intrusiveness (Edwards *et al* 2002). Thus, perceived irritation can be influenced by an advertisement's message. Having considered personalization and interactivity were two of the most contributing variables to the model, it is implied that consumers tend to avoid messages that show interrupting advertisements like spam messages.

Hypothesis 8 (Brand Credibility): Hypothesis 8 indicates that low credibility of advertising brand is negatively associated with higher customer intention to join mobile advertising campaigns. This hypothesis is also confirmed. The regression coefficient shows a negative linear relationship between low brand credibility and customer intention to

participate in mobile advertising (B= -0,104), while calculated t value for this variable is 2,381, which confirms the regression coefficient is statistically significant (critical t value is 1,96,d.f(1,250), p<0,05). Brand credibility (X5) is one of the predictors of the customer intention to participate in mobile advertising (Y).

Haghirian *et al* (2005 b) also supports this finding by indicating that high credibility of the advertising message is positively associated with advertising value.

Brand credibility in the study is based on the extent to which consumers trust or already found the marketer as reputable, or they do not have any prejudice or antipathy to marketer's brand/brands. Consumers trust is based on the customer's belief that the marketer has the expertise and honesty to perform a transaction effectively and reliably (Ganesan 1994). Although building trust which involves technology and business practices is a complex process, growth and success of mobile commerce depend on it (Siau and Shen 2003). Trust is also increased by experience with a channel partner (Ganesan 1994). It is a very new phenomenon to communicate with consumers via their mobile devices so, marketers are requested to build and breed trust. Building awareness via other media is therefore advisable as well. Studies report that familiar brands are less affected by competitive clutter in magazines than unfamiliar brands (Kent and Allen 1994). This finding could be also valid for mobile medium when SMS or MMS advertising will start.

According to a surprising finding in Drossos's study, credibility does not seem to be a decisive factor at least for the first advertising communication and following the permission based marketing approach (Drossos *et al* 2007). However, the study also highlights that, agencies and advertisers should not forget the diminishing returns of SMS push advertising that will most probably be influential in the perceived trust and satisfaction of the consumer.

Hypothesis 9 (Confidentiality): Hypothesis 9 suggests that privacy and personal information security concerns of customer are negatively associated with higher customer intention to join mobile advertising campaigns. However, in relation to hypothesis 9,

calculated t value for confidentiality is observed as 0,59 while regression coefficient B= -0,03. The regression coefficient indicates a negative relation as addressed by the hypothesis but very weak and calculated t value (0,59) is less than the critical t value which is 1,96 (d.f.(1,250), $p<0,05$) indicates this relation is not statistically significant. In other words, contrary to the literature based expectations, confidentiality does not contribute useful information to the prediction of customer intention to mobile advertising.

At first glance, this result is surprising since numerous studies have indicated similar results for other permission marketing tools, e.g. e-mails. For example, Haghirian *et al* (2005b) confirmed that for customers who value privacy very much, it is less likely to attribute a high value and show a positive attitude towards advertising via mobile devices. Varshney predicts that especially the sharing of user information will be a primary topic of discussion in the near future (Varshney 2003). The successful usage of mobile advertising is under the threat of unauthorized resale of personal information, intrusion and theft of customer databases, and unauthorized use of lost or stolen mobile devices (Rao and Minakakis 2003).

However, Ackerman, Darrel and Weitzner (2001) argue that there is also a possible trade-off between perceived privacy intrusion and user benefit. They assume that a certain degree of privacy loss is accepted if benefit is considered to be sufficient and satisfying (Ackerman *et al* 2001). But still, it is not possible to dismiss privacy concerns.

Hypothesis 10 (Age): Hypotheses 10 to 13 dealt with relevant demographic variables of the consumer. Hypothesis 10 states that higher age of the customer is negatively associated with higher intention to join mobile advertising campaigns. Surprisingly, these hypotheses could not be supported. The regression coefficient B= -0,05 indicates the negative relation between age and intention to participate in mobile advertising however it is not found as significant.

Age does not influence the advertising recipients' intention to participate in mobile advertising significantly. Bracket and Carr's (2001) findings support these results by

showing that in the case of web ads, age did not influence the attitude either (Brackett and Carr 2001).

On the other hand, Leppaniemi *et al* (2005) found a statistically significant relation between respondents' age and willingness to receive mobile marketing communications. According to this study, customers aged equal or less than 18 years were found to be most eager to accept mobile marketing, whereas customers aged 65 years or more were least willing. In order to analyze this, an additional t-test is run to test below given null hypothesis:

H0: There is no difference in customer intention to participate in mobile advertising for age 14-19 and 50-59 age groups.
H1: Customers aged equal or less than 19 years are more willing to participate in mobile advertising campaigns.

As the data is interval and samples are independent, the t-test is chosen (Cooper and Schindler 2003, Çakici *et al* 2000). Significance level $\alpha=0,05$ is chosen and one-tailed test is performed. Accordingly, calculated t value with 71 degrees of freedom is found 1,170 (equal variances not assumed), where the critical t value with d.f.=71 and $\alpha=0,05$ is 1,671. Since the critical value is not larger than the calculated value, (1,170< 1,671), not reject the null hypothesis and conclude that intention to join mobile advertising campaigns do not differ between age groups.

Hypothesis 11 (Gender) : It will next be investigated whether gender influences the dependent variable or not. Hypothesis 11 indicates that customer intention to join mobile advertising campaigns is associated with gender of the customer. However this hypothesis is also not supported by the data. Regression coefficient B= -0,16 is not found as significant where calculated t value is 0,313 is not larger than the critical t value which is 1,96 (d.f.(1,250), $p<0,05$). Accordingly gender is not one of the predictors of customer intention to participate in mobile advertising.

Neither of the hypotheses could be supported. Haghirian *et al* (2005b) also indicated that there were no significant differences found in neither perceived value nor attitude toward advertising via mobile devices. Bracket and Carr (2001) also reported similar results, and they also found that gender is influential in consumers' attitude toward the advertising type but not in their perceived value.

As it was mentioned earlier in part 3.2.1.11, Leppaniemi *et al* (2005) found that 90.7 percent of men appreciated SMS marketing from the company whereas the corresponding number for females was 87.5 percent. The difference between the genders was statistically significant.

In order to investigate this situation, the below given null hypothesis is tested with an additional two-tailed t test:

Ho: There is no difference in customer intention to participate in mobile advertising between men and women.
H1: There is a difference in customer intention to participate in mobile advertising campaigns between men and women.

Again, as the data is interval and samples are independent, the t-test is chosen (Cooper and Schindler 2003). Significance level α=0,05 is chosen and two-tailed test is performed since H1 does not indicate any superiority. Accordingly, calculated t value with 250 degrees of freedom is found 2,059 (equal variances not assumed), where the critical t value with d.f.=250 and α=0,05 is 1,671. Since the calculated value of t is larger than the critical value (1,960>1,671), reject the null hypothesis as advised Çakıcı *et al* (2000), and conclude that intention to join mobile advertising campaigns differ between gender groups.

However, these results still might not be providing an insight for marketers to design more targeted campaigns, since the gender factor is not one of the statistically significant predictors of customer intention to participate in mobile advertising campaigns.

Hypothesis 12 (Education) : Hypothesis 12 proposed that a high level of education is negatively associated with customer intention to join mobile advertising campaigns. Regression coefficient B= 0,70 is found statistically not significant where, calculated t value is smaller than critical t value (1,450<1,96; d.f.(1,250), p<0,05). This means education is not one of the predictors of customer intention to participate in mobile advertising.

Haghirian *et al* (2005b) also confirm this finding by explaining that interviewees with higher education did not show a more positive attitude toward advertising via mobile devices, but they perceived it as more valuable. In contrast, Bracket and Carr's study (2001) concludes that for web advertising, there is influence on attitude toward web advertising, but not on advertising value.

Hypothesis 13 (Experience): Hypothesis 13 which proposes that customer's experience about mobile phones and mobile advertising is associated with customer intention to join mobile advertising campaigns is also not supported by the data. The calculated t value for experience variable is smaller than the critical t value (0,154 < 1,96; d.f.(1,250), p<0.05). Accordingly, it can be concluded that experience is not one of the predictors of customer intention to participate in mobile advertising. Conversely, literature advises that customers' experience has an influence on willingness to participate in mobile advertising campaigns. An example is the study of Salo *et al* (2004) that has confirmed a similar result that for sports spectators who have some prior experience in using mobile services and devices, m-marketing services seem to more positively effective.

It is very interesting to see that customers' positive or negative experiences do not influence their intention, while majority of respondents (51.2%) have been owning a mobile phone for between 4 and 10 years and while majority of them (59,5%) gets more then 5 mobile advertising messages per month. Having considered slightly over 92% of the respondents had received some kind of mobile marketing message in last 3 years, it was expected that at least their negative experiences might drive them to a negative attitude towards mobile

advertising. Or their positive experiences might drive them to participate more. But this is not supported by the data.

In sum, the results indicate that customer intention to participate in mobile advertising strongly depends on campaign characteristics. The main findings of the study indicate that interactivity (X1), informativeness (X2), entertainment (X3), brand credibility (X4) and personalization (X5) have an effect on dependent variable: customer intention to participate in mobile advertising campaigns (Y). Those features of campaigns can be formulated with a regression equation as below given:

$$Y= B0 + B1\ X1+ B2\ X2+ B3X3 +B4\ X4+B5\ X5 +e$$

Considering that e (error) is normally distributed about a mean of 0, it will be assumed that the e equals to 0 (Cooper and Schindler 2003), so the equation may now be constructed as:

$$Y = 1{,}511 + 0{,}223\ X1 + 0{,}149\ X2 + 0{,}203\ X3 - 0{,}104\ X4 + 0{,}136\ X5$$

or

Intention = 1,511 + 0,223 Interactivity + 0,149 Informativeness + 0,203 Entertainment - 0,104 Brand Credibility + 0,136 Personalization.

Considered standardized regression coefficients (βs), interpretation of the relative importance of the associated X values can be done, particularly when the predictors are unrelated (Cooper and Schindler 2003). For example, Interactivity valuation variable (β1= 0,261) explains more than either of the other four variables (β2= 0,170; β3= 0,215; β4= -0,164; β5= 0,148). If the equation is formed with standardized coefficients (Y intercept-constant is zero), the equation will be transformed to the below given format. Accordingly, relative contributions of these five independent variables to the explanatory power of this equation can be seen from β values.

Intention= 0,26 Interactivity + 0,17 Informativeness + 0,21 Entertainment - 0,16 Brand Credibility + 0,14 Personalization

Finally, as the empirical data show, the respondents held positive attitudes about receiving mobile ads. The average respondent score on overall attitude was 2.88 on a five-point Likert scale, with 1 the least favorable and 5 the most favorable. Given the unique nature of mobile phones, agencies and managers should examine the features of their mobile advertising campaign so as to effectively target consumers. However, the message characteristics need to be developed carefully. Marketers can not only rely on the fact that an advertising message sent via a mobile device will be read and remembered automatically.

The fact that the mobile device is an attention getter does not guarantee that the message will attract consumers' interests in the message or the product (Ogilvy 1963). This creates new challenges for marketers in the future. As the main findings of the study, it can be advised to marketers that interactivity, informativeness, entertainment, brand credibility and personalization features of mobile advertisement campaigns should be kept in mind for capturing higher customer intention to mobile advertising campaigns.

3.5 Further Implications and Suggestions for Future Research

This study aims mainly at examining mobile advertising's challenges and future directions by evaluating factors that seem to affect consumers' intention to participate in mobile advertising campaigns. For the present literature review, various sources including research reports from consulting and marketing research firms, industrial presentations and publications, newspaper articles, books, as well as academic studies were investigated. The literature review constituted the basis for thirteen hypotheses which are proposed and tested, and these hypotheses laid the ground to the conceptual model on consumer intention to participate in mobile advertising.

There are multiple unexamined issues about mobile advertising industry in Turkey, and this study can open new dialogues on these issues, as well as strengthening new grounds. However, in order to better understand the fundamentals behind customer intention to

participate in mobile advertising campaigns, different kinds of case studies should be examined, different surveys should be developed and the developed regression model should be refined.

Considering the studies which examine mobile marketing communication channel, the present study is among the first ones. There are two sides of the goal of this study. First, it gives a coherent explanation of m-marketing and m-advertising, considering the confusion of unfixed definitions. Secondly, critical success factors of m-advertising are examined from the viewpoint of customer's intention to participate mobile advertising campaigns.

This study outlines the critical success factors of m-advertising campaigns, which is the most prominent theoretical contribution of the study. There is a need for research to examine the factors that are influential in consumers' willingness to receive mobile advertising, and this study satisfies this need. Since m-advertising is a new phenomenon, the literature does not have enough research that evaluates how these unique characteristics and related variables influence a consumer's response to a mobile or mobile enhanced advertisement or promotion. Also the effect of the advertisement or promotional medium itself, i.e. TV, radio, print media, Internet, text messaging, wireless Internet, multimedia messaging, etc. on the response to or the outcome of a campaign has not been sufficiently examined.

How consumers do respond to mobile marketing has been an issue of many case studies and academic papers from around the world, however, very little is understood about the variables that influence this response. If marketers can identify and learn to control and isolate all the key variables and their interactions, they can optimize their activities and not "waste" their money. In this study, important drivers of m-advertising are presented and a framework is provided in order to assess the critical factors that affect consumers' willingness to accept m-advertising.

An integrated model about acceptance was constructed to be further verified and tested with empirical data. The study contributes to the literature by developing this framework.

Naturally, there are factors that limit the validity and generalizability of our results. Certain limitations should not be ignored in interpretation of the study. Our empirical results are based on 252 interviews only, and they are validated with other material, but it is not sufficient for drawing too solid conclusions from the data. As a result, a larger survey type of study investigating customer intention to join mobile advertising campaigns would be a valuable suggestion for future research.

Also, it is important to note that some information found during the study is conflicting and some issues remained somewhat unsolved. For example, the influence of only 5 out of 13 independent variables were found be statistically significant. However, many resources in literature advocate that all these 13 variables are significantly influential on customer intention to participate in mobile advertising campaigns. Moreover, the definitions of m-advertising, mobile marketing and the hype around wireless marketing via the internet are conflicting points that need further work from researchers.

Finally, considering that the market is in its early stage and there is a lack of profound empirical evidence on mobile marketing campaigns, the results of this study should be considered as suggestive for future studies. In order to confirm or deny the findings presented, there is a need for different kinds of case studies and surveys. Also, the fundamentals of m-advertising acceptance should be further questioned. This study has a relatively low R^2 value, and it can be increased by adding new variables such as cost of participation, location awareness, etc. to model. Consequently, a further adoption of measurement scales may help to increase the goodness of fit of the model. Utilization of a qualitative study is also advised in support of validating the measurement scale to reach a higher crombach's alpha value. Furthermore, the possible interaction between independent variables can be investigated with the help of advanced multi-collinearity analysis. Another improvement would be maid by employing relatively new concept of effect-size investigation in analysis to enrich the regression equation.

Future studies can generalize the findings for understanding how the m-advertising channel can better respond to its promises in Turkey, by further developing the presented conceptual model and testing the hypothesis with larger sample sizes.

CHAPTER 4:

CONCLUSIONS

4. CONCLUSIONS

This study aims at exploring mobile advertising's challenges and future directions. In order to achieve this goal, it examines factors that seem to influence end-users' intention to participate in m-advertising. Critical success factors of m-advertising are investigated in this study from various viewpoints. In addition to an outline of the important drivers of m-advertising, this study also includes a framework that enables to assess the critical elements affecting consumers' willingness to participate in m-advertising. Having its basis on end-user intention, an integrated model was constructed and empirical data was used to test the model. 13 hypotheses which are based on the literature review are proposed, and they laid the ground to conceptual research model on end-user intention to participate in m-advertising.

The study also deals with the confusion about the definitions of mobile advertising and mobile (wireless) marketing. It is observed that the m-advertising literature lacks any explicit definition of the m-advertising. As a result, this study tries to end the confusion of unfixed definitions by coherently explaining m-advertising. However, there are still some unresolved issues about the description of mobile advertising, so a further work from researchers is still needed. Mobile marketing and mobile advertising have involved in conflicts and overlaps in definition and use cases, as a result, to be in line with the use case, these two concepts are used interchangeably in this thesis.

Books, research reports from consulting and marketing research firms, industrial presentations and publications, newspaper articles, and academic studies were among the from which the papers for the present literature review were collected.

Considering the literature review of relevant studies in the field, m-advertising is expected to be the possible next big wave after the IT hype at the end of the last decade. However, there are rather positive forecasts concerning the growth of m-advertising and they assume that consumers will be willing to acquire new mobile devices, use new mobile services and

thus enter the smart phone era. Actually right applications and purposes of use for m-advertising should be found at least in the early and late majority markets, in order to start a diffusion effect. As a result, only if factors that have influence on customer intention to participate in mobile advertising are understood, m-marketing will unleash its full potential. This study, which investigates the factors that affect consumers' intention to participate in mobile advertising campaigns, is a response to the call for research on the use of mobile medium in marketing communications.

In summary, this thesis includes many insights regarding future forecasts, descriptions of mobile advertising, business models, market players and their roles and antecedents of mobile advertising are provided through the results of the literature based and empirical studies. Also, the study specifically investigates influential factors of customer willingness to participate.

This study presents replies to the first research question;

> *"Are characteristics of an advertising campaign associated with end-user intention to participate in mobile advertising?"*

In a way, there is a strong relation between the customers' intention to participate in m-advertising and the entertainment, informativeness, interactivity and personalization features of the advertising campaign designed for mobile devices. In addition, credibility of the advertising brand also affects customers' decision to join a campaign.

It is surprisingly found that end-user's intention to participate in mobile advertising campaigns is not affected by customer demographics. This result helps us in understanding about the second research question, which was:

> *"Are demographic characteristics of end-user associated with end-user intention to participate in mobile advertising?"*

The study presented in this thesis directly leads to two significant research questions. On the one hand, it can be advised to marketers that interactivity, informativeness, entertainment, brand credibility and personalization are critical features of mobile

advertisement campaigns for achieving higher customer intention to mobile advertising campaigns. According to this study, only 5 out of 13 independent variables were found to have a statistically significant influence on the dependent variable. However, many resources in the literature advocate that all these 13 variables have significant effects on customer intention to join mobile advertising campaigns. On the other hand, the research results unexpectedly reveal that ease of join; rewards, irritation, confidentiality and customer's demographic factors (experience, education, gender and age) do not have a statistically significant influence on end-user intention to participate in mobile advertising campaigns.

The main finding of the study is the below given regression equation which formulates the relationship among end-user's intention to participate in mobile advertising campaigns and its antecedents:

> *Intention=0, 26 Interactivity +0, 17 Informativeness+0, 21 Entertainment-0, 16 Brand Credibility + 0, 14 Personalization.*

The features of the mobile advertising campaign should be examined by agencies and managers in order to effectively target consumers. Accordingly, a careful development of the campaign characteristics is needed.

Thanks to the mobile device, m-advertising is highly interactive as the parties can act on each other, on the communication medium, and on the messages (Liu and Shrum 2002). An ad can be replied by a customer through phoning, sending an SMS, MMS or an e-mail, or logging into the advertiser's web page by using the mobile device. Furthermore, a customer may pass the ad to her/his friends and this viral marketing is very beneficial for the advertiser, because the sender adds credibility to the message.

If a consumer has enough information about campaign characteristics, his/her gained attention towards campaign can be affected. Fair and transparent information regarding campaign details can be instrumental in increasing campaign response rate. The device to which the advertisement is distributed should be considered while constructing the context,

because if the message does not fit to the terminal's conditions, it will be problematic for the receiver to receive and understand the message. Such problems can be avoided, but still the context should be given importance, it may be location, time and/or weather. Advertisements that transfer incentives are very well appreciated by recipients, therefore information is considered to be a very valuable incentive in mobile marketing. For example, by means of the ability to locate the user's mobile device, the m-advertising service can send an ad only when the customer walks by the retailer's shop. As Milne and Gordon support, relevant messages for end-users catch attention of them (Milne and Gordon 1993).

Different studies define an individual's goals as a person's cognition of what s/he is pursuing in a particular situation and to an associated inner state of arousal (Eysenck 1982, Pervin 1989). The evaluation of the ads by the customer is affected by the type of goal the customer is trying to achieve by using a mobile device. If the user seeks information in the media, s/he will pay more attention to ads including relevant information on products /services or companies. On the other hand, if the customer searches for entertainment, ads that are entertaining and provide experiential satisfaction through aesthetic pleasure, emotional stimulation, or social experience will be more appealing (Barwise and Strong 2002). Also, there may be consumers who are after both kinds of goals at the same time, and the relative importance of the types are determined by the situation that the consumer is in. However, the data supports that end-user's intention to participate in mobile advertising campaigns is positively influenced by both informativeness and entertainment characteristics of campaigns.

However, customers' intention to participate in mobile marketing campaigns is negatively influenced by a negative past experience, antipathy or any prejudice toward mobile marketer company. Moreover, customers show low intention to join mobile campaigns that are run by unknown or untrustworthy brands. As Whitaker stresses, if data is controlled by unknown individuals, receivers can easily be annoyed (Whitaker 2001). Consumers show high sensitivity against receiving messages from unknown persons or organizations, so if

they are uncomfortable with a brand, they may refuse to participate in the campaigns of that brand.

In terms of personalization, mobile advertising is similar to personal selling. Mobile devices, especially mobile phones have personal features including personally selected or even self-composed ringing tones, individually tailored covers or general appearance and additional decorations; also they carry information on personal friends as well as personal calendar. Moreover, mobile phone is ubiquitous device, in other words it is with its user everywhere and every time. Therefore, the fact that the device is personal affects the information that is sent and received through the device (Barwise and Strong 2002). It is concluded that, as m-advertising for individuals rather than masses, ad personalization features provided in campaign design will positively influence end-users' intention to participate in campaigns.

Multiple issues on m-advertising industry that need to be investigated gain a stronger ground with this study, and also some new dialogues are opened. M-advertising is a very new phenomenon so, market researchers and players involved in m-advertising are in need of studies that not only illuminate the evolving market but also guide to the right way to follow. The proposed model and hindered results are for this purpose. However, in order to better understand the fundamentals behind m-advertising, there remains a room for further analysis of different kinds of case studies and surveys to develop and refine the regression model.

The empirical study supports that consumers' attitude is influenced by mainly the characteristics of the advertising campaign itself. Consequently, advertising companies should be careful in designing their mobile advertising messages and also plan their mobile advertising campaigns and target groups thoroughly. Marketing managers can gain significant insights from this study. This study indicates that customers show willingness to participate in mobile marketing, thus companies are advised to use this emerging medium in the right way. If companies utilize mobile technology, they will always be able to reach to their customers, thereby having the opportunity to manage these customers effectively.

It should be kept in mind by m-advertisers that m-advertising is for personalized interaction rather than mass communication. This means that through m-advertising can reach niches such as young men interested in technology. The traditional marketing channels will have difficulties to reach these niches. Also, mobile advertising enables marketers to send personalized messages to their loyal customers (e.g. through utilizing CRM databases). Moreover, if they can discover what kinds of customers act upon their m-ads, they may find new customers feasibly. Among commercial benefits revealed by the empirical study, there is also the possibility for the advertiser to support its public image by means of m-advertising. A company may enhance its image by this way and may attract certain customers. Besides, the most useful, informative or entertaining m-ads may record high response rates.

Finally, mobile advertising should not be evaluated differently from any form of traditional advertising and it should be treated as a part of the advertising mix, or integrated marketing communication. Hence, the mobile advertising service provider should be open to discussion with the customer on the specific features of this new type of advertising media, in order to set specific and realistic objectives for the media.

Considering the studies examining the use of mobile as a marketing communication channel, this study is among the first ones in Turkey. This study outlines the critical success factors of m-advertising campaigns, thereby making the theoretical contribution to the literature. Existing studies on the potential and critical success factors of mobile advertising lack an empirically validated framework. The present study's main contribution is the development of this empirically validated framework.

However, the results of this study should be evaluated as tentative. The survey was conducted on only 252 samples representing Istanbul. Şişli and Istanbul may be thought representative as their demographics are concerned, but still there is a need to a nationwide field survey for generalization of the model. In sum, it is assumed that the reliability and validity of the findings are not critically affected by these limitations, but they are considered as limitations for the conclusions and implications that can be drawn from the

study. A further investigation on the interaction of the other possible campaigns characteristics such as cost of participation, location awareness and mobile TV, and working on a larger sample size could result in a more precise picture of correlates for successful mobile advertising campaigns.

As marketers gain more experience with m-advertising in Turkey, they will build personal one-to-one relationships with mobile phone users via the mobile channel. Building successful personal relationships, m-advertising will be a great potential to increase sales of various products and services. However, these achievements will presumably not happen in the very near future, because many factors that decelerate the adoption of m-advertising exist. Technological constraints (3G does not exist yet) and regulatory issues are primary ones among these factors. Until the adoption of m-advertising is fully achieved, marketers can develop themselves on certain categories, such as the effective campaign designs and deployments. Marketers may achieve to create compelling end-user experiences through successful campaigns that are highly targeted, relevant to customer interests, designed to stimulate interaction and launched with trusted partners and brands.

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Appendix A

Questionnaire

SAHA ARAŞTIRMASI SORULARI	MOBİL REKLAM ARAŞTIRMASI Mayıs 2007	ANKET NO:

AÇIKLAMALAR:

Bildiğiniz üzere günlük hayatımızın vazgeçilmez bir parçası haline gelen cep telefonlarımıza zaman zaman çeşitli kampanya, tanitim mesajlari gelmektedir.Aşağıdaki cevaplayacağınız sorular bu tür mobil reklam kampanyalarıyla ilgili olarak sizin değerli görüşlerinizi almak üzere hazırlanmıştır.

Araştırma kapsamındaki mobil reklam uygulamalarına örnekler şunlardır: Firmalar ürünlerini cep telefonu kullanıcılarına kisa mesaj (sms), görüntülü mesaj (mms), yüklenebilir dosya (java) gibi yöntemler ile tanıtmak icin mesajlar göndermektedir. Veya ürünlere dair indirim, promosyon bilgilerinin cep telefonları kanalı ile duyurulması ve cep telefonlarından mesajla katılım için kampanyalar düzenlemektedir.Örneğin beğendiğiniz bir markaya ait indirim haberlerinin cebinize gönderilmesi veya cep telefonunuzdan internete çıktığınızda yeni bir ürünün reklamının otomatik olarak telefonun ekranında görünmesi gibi.Ya da belirli bir sure içinde, bir üründen çıkan şifrenin cep telefonundan kampanya numarasına gönderilmesi ve hediye çekilişlerine katılım gibi uygulamalar.Buna göre bu tür reklamlarla ilgili aşağıdaki yorumlara yönelik size uygun gelen cevabı yuvarlak içine alınız.

Cep telefonu kullanıyor musunuz?

EVET, VAR	1	**DEVAM ET**
HAYIR, YOK	2	**BİTİR**

MOBİL REKLAM UYGULAMALARINA KATILIM

Lütfen aşağıdaki yorumlar icin size en uygun gelen cevabi isaretleyiniz.

Soru 1. Bana gelen mobil reklam mesajları eglenceli olursa mobil reklam kampanyasından faydalanacagım kanısındayim.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 2. Bana gelen mobil reklam mesajlarında yeterli bilgi varsa mobil reklam kampanyasından faydalanabileceğim kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 3. Mobil reklam kampanyalarına katılmak kolay olursa, bu tür kampanyalardan faydalanabileceğim kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 4. Mobil reklam kampanyasında katılım için hediye verilirse, bu tür kampanyalardan faydalanabileceğim kanısındayım

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 5. Mobil reklam mesajları benim istediğim saatlerde, ilgilendiğim konularda gelirse ve kampanya karşılıklı mesajlaşmalar ile yapılırsa, bu tür kampanyalardan faydalanabileceğim kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 6.Gönderilen mesajlar ihtiyaç ve ilgi alanlarıma özel olursa mobil reklam kampanyalarından faydalanabileceğim kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 7. Gelen mesajların içeriğini rahatsız edici bulduğum mobil reklam kampanyalarina katilmanin riskli olacağı kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Kesinlikle Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum
⑤	④	①	③	②

Soru 8. Mobil reklam kampanyası için cok sık mesaj gonderilmesi halinde bu tür kampanyalara katılmanın riskli olacağı kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 9. Tanımadığım ya da güvenmediğim firmaların mobil reklam kampanyalarına katılmanın riskli olacağı kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru 10. Mobil reklam kampanyası düzenleyen firmaya karşı önceden bir önyargım varsa, antipati ya da hosnutsuzluk hissediyorsam o kampanyaya katılmanın riskli olacağı kanısındayım

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru11. Mobil reklam kampanyalarına katılmanin kişisel bilgilerime başkaları tarafindan erişilmesi ve kullanılması riski taşıyacağı kanısındayım.

Kesinlikle Katılıyorum	Katılıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılmıyorum	Kesinlikle Katılmıyorum
⑤	④	③	②	①

Soru12. Mobil reklam kampanyalarina katilmanin fayda ve riskleri konusunda şöyle düşünüyorum:

Cok fayda sağlar	Fayda Sağlar	Ne Fayda Sağlar, Ne Risk Getirir	Risk Getirir	Cok risk getirir
⑤	④	③	②	①

Soru13. Mobil reklam kampanyalarının size getireceği fayda ya da riskleri düşündügünüzde, önümüzdeki dönemlerde düzenlenecek kampanyalara cep telefonunuzdan katilim konusunda ne düşünüyorsunuz?

Kesinlikle Katılırım	Katılırım	İlgilenmiyorum, fikrim yok	Katilmam	Kesinlikle Katılmam
⑤	④	③	②	①

DEMOGRAFİ

Soru 14. Ne kadar zamandır cep telefonu kullanıyorsunuz?

4 yıldan az	①
4 ve10 yıl arası	②
10 yıldan fazla	③

Soru 15. Hangi yogunlukta mobil reklam kampanya mesaji aliyorsunuz?

Hiç almadım	①
Ayda 5 ve daha az	②
Ayda 5'ten fazla	③

Soru 16. Kac yildir bu tür mobil reklam mesajı aliyorsunuz ?

Hiç almadım	①
3 ve daha az yil	②
3ten fazla yil	③

Soru 17. Cinsiyetiniz?

Kadın	①
Erkek	②

Soru 18. Yaşınızı öğrenebilir miyim?

Açık olarak Yaz: _____

14-19	①
20-29	②
30-39	③
40-49	④
50-59	⑤

Soru 19. Eğitiminiz?

Bir Okul Bitirmeyen	①
İlkokul	②
Ortaokul	③
Lise	④
Üniversite ve Üzeri	⑤

TEŞEKKÜRLER

Appendix B

TUIK, ŞİŞLİ 2000 Census of Population

Photocopy:Şişli Y200 Population Census

Curriculum Vitae

Yasemin YÜCEL received her Bachelor degree in Electronics and Telecommunications Engineering in 1996 from İstanbul Technical University and M.S. degree in 2002 in Master of Business Administration from Işık University. She has more than 10 years of experience in telecommunications and IT industry, in leadership roles in product development, product management, consultancy, marketing management, strategy development, consultative sales, business development, partnering and program management ; including international assignments. Her previous and current studies in mobile communications gives her a strong advantage of being very competent and familiar with mobile advertising and Turkish market value chain players such as developers, IT professionals, architects, system integrators, operators , service providers and vendors. She has tought "Rising Trends in Mobile Life" course in Işık University.