

Determinants of consumer intentions to redeem mobile coupons

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DETERMINANTS OF CONSUMER INTENTIONS TO REDEEM MOBILE COUPONS

The main objective of this research is to discover determinants of consumer intentions to redeem coupons which are sent to mobile phones (mobile coupons) by using the adoption models which exploit cognitive and social theories of decision making. Mobile marketing communication has been used greatly but the lack of understanding the consumer has made it unattractive in both companies' and consumers' point of view. The study aims to fill this gap especially in the mobile coupon field by trying to find out the validated model and determinants which influence on the consumer. To wider the perspective this research investigates whether there are differences between the consumers who have already used mobile coupons and consumers who have never used them. The practical aim of this study is to provide consumer behavior recommendations about the mobile coupons to small and medium sized companies as well as future entrepreneurs.

The purpose of data collection was to find the same kind of profile of respondents which other mobile coupon researchers have used. In this way, comparison with the previous analyses could be made in the Finnish context. The three previous studies (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010) focused on the general profile of mobile service users who are primarily young and well-educated people (A.T. Kearney, 2011). The questionnaire was sent to 250 persons in Facebook and 190 responses were received. The research model and formulated hypotheses were tested using the structural equation modeling to determine whether relationships exist between the determinants. In addition, analysis of variance was used to explain the statistical differences between the consumers who have used mobile coupons and consumers who have not used them.

The results of research highlight the importance of understanding the consumer. The results showed that the subjective norm, perceived control and attitude explained directly 81 per cent of the intention to redeem mobile coupons. The attitude with its indirect determinants accounted for 67 percent of the redeeming intention. Among the indirect determinants, the economic benefit was the most significant and hereafter came the non-economic benefit and entertainment. The redemption effort was the only determinant in the research model which was not significant. Furthermore, the differences between the consumers who have already used mobile coupons and consumers who have never used them were explored. The results showed that there were statistically significant differences in all determinants despite one. This determinant was the perceived control. The study also showed that the previously used group thought overall more positively about the mobile coupons than never used group.

KEYWORDS: Mobile marketing communication, traditional coupons, mobile coupons, push method, attitude, intention, structural equation modeling, analysis of variance

TEKIJÄT, JOTKA VAIKUTTAVAT KULUTTAJAN AIKOMUKSEEN LUNASTAA MOBIILIKUPONKEJA

Tutkimuksen päätarkoituksena on selvittää tekijät, jotka vaikuttavat kuluttajan aikomukseen lunastaa matkapuhelimeen tulevia kuponkeja (mobiilikuponkeja) käyttäen adoptiomalleja, jotka hyödyntävät sekä kognitiivisia että sosiaalisia päätöksentekoteorioita. Viime vuosikymmeninä mobiilimarkkinointia on käytetty hyväksi paljon mutta kuluttajan ymmärryksen puutteen takia siitä on muodostunut epämieluisa sekä kuluttajien että yritysten silmissä. Tutkimus aikoo paneutua kyseisen ongelman osa-alueeseen, mobiilikuponkeihin tutkimalla sitä kuluttajan näkökulmasta. Jotta laajempi näkökulma saataisiin mobiilikuponkeista, tämä tutkimus selvittää myös, onko mobiilikuponkeja käyttäneiden sekä ei käyttäneiden välillä eroavaisuuksia. Tutkimuksen päämääränä on akateemisen tutkimuksen lisäksi myös antaa suosituksia kuluttajan käyttämisestä mobiilikuponkeja kohtaan niin pienille sekä keski suurille yrityksille kuin tuleville yrittäjille.

Aineiston hankinnan tarkoituksena oli löytää samankaltainen vastaajaprofiili aikaisempien tutkimuksien kanssa. Tällä tavoin vertailu aikaisempien tutkimuksien kanssa voitiin tehdä suomalainen konteksti huomioiden. Kolme aikaisempaa tutkimusta (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010) keskittyivät yleiseen matkapuhelin käyttäjän profiiliin, joka on nuori ja hyvin koulutettu ihminen (A.T. Kearney, 2011). Kysely lähetettiin 250 ihmiselle sosiaalisessa yhteisössä Facebookissa ja 190 täytettyä kyselyä saatiin takaisin. Muodostettu tutkimusmalli sekä hypoteesit testattiin käyttäen rakenneyhtälömallia. Tämän lisäksi varianssianalyysiä käytettiin selvittämään, eroavatko mobiilikuponkeja käyttäneet ja ei käyttäneet toisistaan.

Tämä tutkimus korostaa kuluttajan ymmärtämisen tärkeyttä. Tulokset osoittavat, että subjektiivinen normi, oma kontrolli sekä asenne selittävät 81 prosenttia lunastamisen aikomuksesta. Asenne yksinään sekä asenteeseen vaikuttavat muuttujat selittävät 67 prosenttia lunastamisen aikomuksesta. Lunastamisen vaikeus oli ainoa muuttuja, joka tutkimusmallissa ei ollut merkittävä. Tämän lisäksi selvitettiin, onko mobiilikuponkeja käyttäneiden ja ei käyttäneiden välillä eroavaisuuksia. Tulokset osoittavat, että ryhmät eroavat tilastollisesti kaikkien muuttujien, paitsi oman kontrollin suhteen. Tutkimus osoittaa myös, että mobiilikuponkeja aikaisemmin käyttäneet kuluttajat ajattelevat yleisesti positiivisemmin mobiilikuponkeista verrattuna ei käyttäneisiin.

AVAINSANAT: Mobiilimarkkinointikommunikaatio, perinteiset kupongit, mobiilikupongit, työntö-malli, asenne, aikomus, rakenneyhtälömalli, varianssianalyysi

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1 INTRODUCTION

The purpose of this research is to discover the determinants of consumer intentions to redeem mobile coupons by using adoption models which exploit cognitive and social theories of decision making. The following chapter begins by outlining the presence and potential future stage of mobile coupons and the possibilities of mobile coupons. This is followed by a definition of research problem and objectives. Finally, the outline and structure of the study are presented.

1.1 Background

In the last two decades the rapid developments in both information technology and telecommunication have got companies interested in mobile marketing communication. Companies see mobile marketing communication as a cost effective and results-driven way to reach potential consumers in a highly personal medium (Barwise and Strong, 2002). Based on the statistics released by the Finnish Communications Regulatory Authority, the number of messages sent in Finland via short message service (SMS) in 2009 grew by 9.5 % to as high as 3.8 billion messages. In addition, 40 million multimedia messages (MMS) were sent in 2009 which is 11 % more than last year. Because of the combination of overwhelming success of mobile messages and the benefits of mobile marketing communication, it has been forecasted that the Finnish mobile marketing communication will grow 10.5 % per year in years 2009-2014 (Idean, 2011).

The economic slowdown over the past few years has raised the coupon usage for the first time in more than a decade (Gray, 2009). Additionally, the group buying phenomenon, where consumers get overwhelming discount coupons from small and medium sized companies, has raised the attention of consumers and companies towards coupons. The rise of the coupon usage and mobile marketing communication has resulted in a new form of sales promotion, mobile coupons. According to the formal description by Mobile Marketing Association (2011), a mobile coupon is “a text or a picture ticket solicited or delivered to a consumer’s mobile phone which can be stored and exchanged for a financial discount when purchasing a product or service”.

Currently, forerunner companies are testing and investigating the opportunities of mobile coupons. One reason for these foreseen actions is the forecast by Juniper Research (2011) which estimates 200 million mobile coupon users globally by 2013. This growing but not yet blossoming sales promotional tool offers great business opportunities for entrepreneurs. For example, the instant location-based discount offers have a huge potential to grow and that is why big companies like Facebook and Groupon are piloting them. In addition, developing and implementing mobile coupon campaigns and selling redemption software and equipments are just a few more business opportunities for entrepreneurs among many others. Furthermore, for already operative small and medium sized companies the mobile coupons offer a new distinctive and innovative way to promote their products or services. In addition, for small and medium sized companies mobile coupons are a cost-effective way to differentiate from other companies; at its best mobile coupons offer a personalized, direct and dialogue-oriented communication which adds value to the customers.

Although the future of mobile coupons seems bright, the present time looks different. Today the reality for most companies, however, is that the mobile marketing communication practices, like mobile coupons, still have not become mainstream activities. The main reason is that although the companies have pushed a great number of applications and advertisements via mobile phone, they have not really understood the consumer yet. The target of this study is to contribute the contemporary and scarce mobile coupon research (e.g., Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jaysingh and Eze, 2010), which tries to explore the determinants which influence consumers' willingness to adopt mobile couponing. Because the coupon adoption and redemption rates are important drivers of sales increases, profits and market performance (Leone and Srinivasan, 1997; Raghurir, 2004), the study hopes to provide valuable practical recommendations to small and medium sized companies as well as future entrepreneurs.

To achieve the objects above, this research uses comprehensively the previous analysis and brings forward new issues which have not yet been examined in mobile coupon research. The study utilizes the fields of couponing and mobile phone context explorations to find out the best research framework. The three most widely used adoption models in these fields are examined more carefully. These are the Theory of Reasoned Action, Theory of Planned Behavior and Technology Acceptance Model. In addition, based on the limitations and further research suggestions of the previous mobile coupon analyses, new issues are going to be

taken into consideration. First of all, the study separates the push and pull marketing communication models from each other concentrating solely on the push model. Secondly, the context of Finland affects research; the legislation states that mobile marketing communication must be based only on explicit permission. Thirdly, the entertainment determinant is introduced from mobile advertising to mobile coupon analyses. Finally, the study investigates whether there are differences between the consumers who have used mobile coupons and consumers who have not used them. Next the research questions are explained.

1.2 Research problem and objectives

The main objective of this study is to provide wide and practical consumer behavior recommendations about the mobile coupons to small and medium sized companies as well as future entrepreneurs. As the introduction explained, mobile marketing communication has been used greatly but the lack of understanding the consumer has made it unattractive in both companies' and consumers' point of view. The study aims to fill this gap especially in mobile coupon field by trying to find out the determinants which influence on consumer. Thus the main research question is following:

Which determinants affect consumer intentions to redeem mobile coupons?

The study tries to reach the target by developing a research model between the key determinants based on the previous couponing and mobile phone context analyses. In addition, the formulated research model and hypotheses are going to be tested by using the structural equation modeling which determines whether relationships exist between the determinants. The validated model will provide a useful framework for managers when they need to assess the possibility of success for mobile coupon introductions and to design mobile coupon campaigns.

To wider the perspective of a mobile coupon, this research examines and separates the already used and never used mobile coupon users from each other. The aim is to clarify the already used and never used persons' opinions about the mobile coupons. In this manner, the sub question of this study is the following:

Are there differences between the consumers who have used mobile coupons and consumers who have not used them?

The analysis of variance is going to be used to explain whether statistical differences exist between these two groups. The study will show for the first time in mobile coupon research how the consumers who have already used mobile coupons felt about their experience. In addition, this test will provide useful recommendations for managers whether or not they should concentrate on different issues with these two groups when designing mobile coupon campaigns.

1.3 Central concepts

This section introduces the main concepts of this research. These concepts vary in the previous analyses, often contradicting one another. In this manner, the previous studies are widely scanned and these concepts are modified to suit for the purpose of this study.

Mobile marketing communication: Mobile marketing and mobile advertising have been used as synonyms in many studies for instance in mobile coupon research. In addition Tähtinen (2005) pointed out, that mobile advertising is widely applied but it does not bring forward the distinctive features of mobile phones. Furthermore, marketing is used as a wider concept than advertising but in many cases it actually covers more than it should. Since neither of the terms seem to cover the phenomenon adequately, this study employs mobile marketing communication; it is a comprehensive concept which serves the same purpose as advertising, personal selling, public relations, customer relationship management and sales promotion.

Traditional coupons: Babakus et al. (1988) defined traditional coupons as price reduction papers which are offered directly to the consumer in various ways. These paper coupons are distributed on the street; direct mail; as a gift with the product purchased; or in newspaper or magazine advertisements.

Mobile coupons: Mobile Marketing Association (2007) defined a mobile coupon as “a text or a picture ticket solicited or delivered to consumer’s mobile phone which can be stored and exchanged for a financial discount when purchasing a product or service”. In this study two types of mobile coupons are applied. Short message service (SMS) coupons include at the most 160 characters of text. Multimedia messaging service (MMS) coupons are on the other hand messages which can cover a combination of text, sounds, images and even videos (Lee et al., 2007).

Push vs. pull method: In a push method, companies will send mobile coupons straight to consumers’ mobile phones if they have an explicit permission. A pull method in mobile couponing on the other hand means that a consumer needs to make an effort on getting mobile coupons. This effort can be for instance a message which is sent somewhere to get a mobile coupon or the mobile coupon can be downloaded from the Internet.

Attitude: Attitude can be seen as an individual’s favorable or unfavorable perception toward specific behavior or issues (Werner 2004). In this case it means a consumer’s overall perception of coupons in the mobile media.

Intention: Ajzen (1991) defined intention the amount of effort a consumer is willing to exert to attain a goal. The study uses this definition and converts it to the amount of effort a consumer is willing to exert in redeeming mobile coupons.

1.4 Structure of the study

Research begins with the theoretical part by discussing the differences between traditional coupons and mobile coupons. The benefits and limitations of mobile coupons are underlined in this section. Next chapter introduces the three most used adoption models in the field of couponing and mobile context. These are the Theory of Reasoned Action, Theory of Planned Behavior and Technology Acceptance Model. Chapter 4 explains the determinants which were found from the adoption models in more detail. Furthermore, the modifications and specifications are made for the determinants. The section will be concluded by introducing the research framework and hypotheses of the study.

Chapter 5 will describe the data collection and questionnaire construction. In addition, the analysis methods of this research are explained more closely. Chapter 6 will present the results of the analyses. The validity and reliability of the study are examined in these both chapters. Finally, the conclusions are made and the managerial implications and further research suggestions are introduced.

2 INTRODUCTION TO MOBILE COUPONS

Even though there have been coupons for over 100 years, the main idea of coupons has not changed: companies offer price reductions directly to consumers to enhance sales. Although the main idea has been the same over a century, companies are still looking for more cost effective and targeted ways to reach consumers. Technology has opened new ways to tackle these issues and the new possible sales promotion tool is a mobile coupon. In this chapter traditional coupons and mobile coupons are introduced. The chapter concludes by underlining the benefits and limitations of mobile coupons.

2.1 Traditional Coupons

In 1894, the first paper coupons were distributed by Coca-Cola containing a free glass of soda (Babakus et al., 1988). In the following year, C. W. Post, a company producing breakfast cereals, set out 1-cent savings certificates that consumers could redeem when buying new cereals called Grape Nuts (Blattberg and Neslin, 1990). Over 70 years later, the coupon distribution really hit the market. According to Jones (1990), the main reason for the growth of coupons in 1970s was that “the number of stabilized markets overtook the number of still growing markets”. In that time, many product categories reached maturation or saturation and companies found it more difficult to grow market shares as well as profits. In order to boost sales volume and generate cash flow, companies underpinned promotional spending including coupons.

The main idea of coupons has not changed in hundred years; the primary appeal of coupons is still a price reduction offered directly to the consumer (Babakus et al., 1988). In addition, the common strategies of reaching consumers have not changed either. Traditional paper coupons are still distributed on the streets; direct mail; as a gift with the product purchased; or in

newspaper or magazine advertisements, whereby consumers cut out the coupons and use them when purchasing the product (Blattberg and Neslin, 1990). Nowadays, the most important coupon distribution practice is a free-standing-insert (FSI), with reference to a leaflet of coupons inserted inside a newspaper.

As the main idea and common strategies have been remained the same, the reason for companies to use coupons has also remained unchangeable. From the standpoint of companies, coupons are an important way to enhance sales and promotion, to attract consumers and to boost desire of consumers to switch brands and maintain repeat purchase (Blattberg et al., 1978). In more detail this means that coupons are useful for inducing trial, converting triers to regular users, encouraging purchases of larger sizes, increasing usage and holding users against competitive entries. The coupon activity has been expanding smoothly in terms of the number of coupon distributed, the value associated with a promotion and the breadth of product categories represented. In the United States alone the total volume of manufacturer coupons distributed hit 332 billion last year (NCH, 2011). This is the largest single-year distribution quantity ever recorded. Shoppers saved nearly 3.7 billion dollars with coupons. These figures illustrate that consumers purchase behavior has shifted toward value and saving as the United States as the whole world recovers from the worst recession since the Great Depression.

As coupons are the most important sales promotion mechanism globally, many studies have tried to discover information about the traditional coupon users. The continuous market analysis by Bawa and Shoemaker (1989) contended that the original buyers of promotional products are predominantly highly educated females who have a large family. From the consumer perspective, using coupons saves time, cost and elastic cost, as has been proven in studies of consumer transactions (Hsu et al., 2006). Many papers have also pointed out that money discount (i.e. face value) is the number one determinant for consumers. For example, Chakraborty and Cole (1991) used candy bars to perform coupon marketing towards 122 MBA students. The results not only showed that the greater the face value of coupon, the greater the effect on redemption rate, but they also demonstrated a higher rate of repeat purchase. But as the face value is important to consumers, Dickinger and Kleijnen (2008) found out that the value of the coupon is more than simply the face value printed on the coupon. Their study pointed out that consumer's interest towards traditional coupons is strongly associated with bargain hunting behavior, reaching a feeling of fulfillment when

accomplishing price savings. Other paper by Babakus et al. (1988) also states that the sense of pride and satisfaction in obtaining the savings have been found to be the most important determinant of coupon usage. Moreover, Teel et al. (1980) discovered that aside from the motivation of money, self-expression was also one of motives of consumer for using coupons.

Although nowadays consumers are using traditional coupons more than ever, companies try to figure out better ways to promote their sales. According to the study by NCH (2011), just 1 % of the coupons distributed were redeemed in 2010. One of the largest coupon distributors for consumer products, Procter & Gamble, claimed that their premise is that their coupon promotions are failing ninety-eight percent of the time (Yarbrough, 1997). This makes it a costly investment in a strategy that provides little if any return for the manufacturer. Because of the high cost and low return, Procter & Gamble made a famous “zero-coupon” experiment in 1995, in which coupons were completely eliminated in three test markets in upstate New York. Although Procter & Gamble significantly reduced the list prices of its products in turn, consumers were outraged and even organized boycotts, public hearings and petition drives (Slater, 2001). According to shopping habit experiment by Avery and Haines (1996), coupons not only involve the consumer in the purchase decision prior to the shopping visit, coupons also give the consumer an element of control over the transaction. These two studies show that coupons generally have a high potential regarding customer acceptance and can become an integral part of consumers’ shopping habits.

As consumers insist and want to use coupons, companies must create new and more effective sales promotion methods. Because of the hard competition, companies must find new ways to be more targeted with marketing activities, including coupons. Every marketing decision needs to be one that will create or reinforce a loyal relationship with the consumer and which will continue to build brand values. These are the elements that will serve to build profits in the long-term. (Slater, 2001) Mobile couponing is one way to tackle these challenges.

2.2 Mobile coupons

In the last decade when mobile phones reached to the masses, also mobile marketing communication and particularly mobile coupons started to take their shape and form. Nowadays, SMS mobile coupons look like the same as they looked in the nineties because of the limitation of 160 characters. Last year, the first big retailers, like Target and JCPenney,

introduced the more sophisticated coupons, MMS coupons, with pictures and barcodes. The emergence of big retailers shows that scanning the barcodes of MMS coupons is easy, fast and technically feasible. Although companies are starting to realize the potential of mobile coupons, they still account for less than 1 % of the whole coupon sales in the United States (NCH, 2011). But the future of the mobile coupons looks promising. According to NCH (2011), consumers spending on mobile coupons jumped four-fold in 2010 and is projected to nearly triple in 2011. In addition, almost 70 % of consumers are interested in receiving coupons via their mobile phones (Juniper research, 2011).

The most common mobile coupons and the interest of this research are a straightforward SMS or MMS that the consumers show at the point-of-sale. These mobile coupons are pushed from the companies to the customers' phones. From the companies' point of view, the push method can be seen as an effective way to reach consumers in a rapid manner (Unni and Harmon, 2007). The main advantage in pursuing the push approach is the opportunity to trigger impulse buying among the consumers who have already given the permission to send coupons (i.e. opted-in) and have expressed their preferences. In Finland, the directive of the European Union is applied, and it states that mobile marketing communication must be based on explicit permission (Leppäniemi and Karjaluoto, 2005). However, no prior permission is required if a customer relationship exists and mobile marketing communication is concerned with products and services related to the purchase history of the customer. The push model has also its drawbacks. The method is very challenging in terms of gaining consumer acceptance, and it may produce negative responses including avoidance (Edwards et al., 2002). On the other hand, it is possible that the relevant push method may have a high perceived value and favorable attitudes toward the marketer if the advertising or promotion matches the needs of the consumer.

One of the leading mobile coupon providers, Cellfire, announced in its consumer research, that a third of its mobile coupon users have never used traditional coupons. According to Kang et al. (2006), one reason for the result can be that traditional coupons are available for short time periods for very limited product classes. They pointed out that most traditional coupons are issued for daily necessities such as toothpaste and detergents whereas digital coupons are issued for services such as restaurants, amusement parks, travel agencies and beauty parlors. Wider product and service supply might be one of the reasons why Dickinger and Kleijnen (2008) contended that mobile coupons might appeal to different target groups

than traditional coupons. They claimed that mobile coupons appeal more technology-savvy consumers who may not be interested in investing time and effort for searching for traditional coupons and prefer using the convenience of the new medium and related services. In line with Dickinger and Kleijnen (2008), Scharl et al. (2005) also found that the youth is a lot more receptive towards mobile advertisements than older audiences, who have a more skeptical attitude towards this form of advertising. They also realized that, opposed to older consumers, the younger consumers attach more “value” to mobile advertising. Companies are also focusing on youth because of their familiarity with new technology such as SMS and MMS. Gray (2009) discovered in his study that out of 31 mobile coupon campaigns, 11 specifically were targeted to 12–30 years old youth. He also proposed that in the early stages of introducing new technology, it is safer to target the generation that is more open to new issues.

At the moment, many companies have dissonant views about mobile coupons as their sales promotion method. Some companies see mobile coupons as an interesting new sales promotion method with huge opportunities. For instance, studies like (Gray, 2009) show that the redemption rate of mobile coupons can be 6 times better compared to the traditional coupons. Others are extremely cautious toward mobile coupons because mobile advertising explorations (Tsang et al., 2004) have shown consumers’ reluctance toward mobile medium. In addition, many companies which are not familiarized in mobile medium think that sending mobile coupons might be costlier than other promotional opportunities for example in the terms of customer relationship. In order to fully realize the advantages of this new sales promotion method, features of mobile medium needs to be addressed. The main difference between mobile coupons and traditional coupons lies in their communication environment and communication model (Hsu et al., 2006) which will be next introduced.

2.3 Benefits of mobile coupons

There are five specific characteristics of the mobile medium which allow companies to promote their sales differently than in any other media. These characteristics are ubiquity, time-specificity, localization, personalization and interactivity (Bauer et al., 2005). Mobile medium can be seen as an ideal for individualized, direct and dialogue-oriented communication and has thus many competitive advantages compared to mass communication. Here are the main characteristics in more detail:

1) Ubiquity: Nowadays mobile phones are an important part of people's life and many feel that they have lost something if their mobile phones are not within reach. According to Bauer et al. (2005), people leave mobile phones on standby for an average of 14 hours a day. Both consumers and companies can see usefulness from this absolute reach. Companies can contact potential customers anytime and anywhere which is not possible with traditional coupons (Kondo et al., 2007). In the consumer's point of view, one can also get and use mobile coupons anytime and anywhere. Next these co-features of ubiquity are discussed.

2) Time-specificity: Gray contented (2009) that mobile coupons fulfill the all-important relevancy and timely factors that companies covet. Compared to traditional coupons, mobile offers can be sent immediately to potential customers depending on the relevant time of the day/week (Banerjee and Yancey, 2010). Companies can also use time sensitive coupons when sales are low due to the time of the day or due to the seasonality (Hsu et al., 2006). In practice it means that hair salons can send mobile coupons to enliven late night sales or cafes can send out coffee coupons during early weekday mornings and food coupons at lunchtime, etc. Consumers on the other hand can immediately know the latest news about non-scheduled promotions and discount text messages, whether for the department store, cosmetic shop or drug store, etc. (Hsu et al., 2006).

3) Location specificity: In addition to time specificity, mobile technologies provide various possibilities for detecting the consumer's location thus enabling context sensitive marketing communication. Mobile coupons can be forwarded to a group of potential customers located within a specific geographical zone. It can be done via Global Positioning System (GPS) or Cell of Origin (COO) (Barnes 2003). According to Bauer et al. (2005), by utilizing these technologies consumers can be informed about new product offers at the point-of-sale thereby inducing them to engage in impulse purchases. These days, however, these kinds of push sales promotion-services have barely been realized due to the poorly developed positioning technologies.

4) Personalization: Bauer et al. (2005) argued that the most of the mobile phone users maintain a very personal relationship with their mobile phone like it would be an intimate accessory. They individualize their mobile phone by saving contacts, messages and important dates. Moreover, a mobile phone is rarely used by any other person than its owner. These

issues interest many companies to use mobile as their marketing communication medium. But according to Banerjee and Yancee (2010), the most interesting issue for companies in personalization is the benefit to personalize sale promotion messages themselves. Mobile coupons can be personalized because history of individual responses and transactions can be stored and accessed. In practice it means that companies can target shoe lovers with coupons on shoes, movie lovers with movie coupons, etc. Although offers of mobile coupons are same as traditional coupons, like cents-off, euros-off, free or buy-one-get-one-free, companies can send and target each one of these offers to the suitable target groups. This approach can be used for tailoring the offer (e.g. different coupon offer based on past purchase behavior) or solely to maximize the redemption rate by an offer optimized for a specific target group (e.g. sending coupons of diapers exclusively to mothers with small babies).

Hsu et al. (2006) further stated that the personalization of mobile coupons allows new tools to improve company-consumer relationships. Companies can for example send mobile coupons to customers who are unhappy with a product or a service as part of their customer retention strategy. In many cases, companies have knowledge about their consumers, including a complaint behavior or stage in the customer lifecycle, which makes them possible to build profiles on their tastes and needs. As companies can exploit this type of information and target mobile coupons, poorly done this approach might be costlier than any other promotional opportunities.

5) Interactivity: An additional aspect of the mobile phone that lends itself to effective mobile marketing communication is interactivity (Bauer et al., 2005). The mobile phone is a highly interactive medium that enables the recipient of a message to reply to it immediately (Kondo et al., 2007). Bauer et al. (2005) stated that mobile phone exhibits all characteristics necessary to establish a direct dialogue between the company and the potential customer. Even the push method can be interactive. Because consumers are more worried about their privacy several new business models have reached to the market. Few companies have started to handle the intrusiveness problem by asking first by SMS or MMS that can they send a mobile coupon. Company then waits for an answer and then will send the coupon or not. Other mobile coupon providers have sent a push MMS or SMS coupon where there is a link to download the coupon on the Internet. If a customer want to have this coupon it can be downloaded on the Internet and if not the customer will just delete the message. Although these kinds of new business models can handle the intrusiveness problem companies still need to realize that

consumers need to have an easy and simple way to cancel the subscription of mobile coupons (MMA, 2011).

6) Other benefits: Cost performance: Kondo et al. (2007) found in their study that mobile coupons were much less expensive than leaflet coupons. Gray (2009) also stated that mobile coupons are a lower cost complement to other mediums such as one-to-one direct mail, ranging from seven cents to 22 cents per message depending on the size of the mobile distribution.

Viral effect: Companies can create push campaigns where the consumer has the ability to forward coupons or order it to friends too. In this way, a viral effect enables companies to reach outside the initial target group of the campaign (Dasari and Anandakrishnan, 2010). The mobile coupon received from a familiar sender can also be expected to have a greater effect on the receiver than a message directly from the company (Bauer et al., 2005).

Storage: There is one simple but quite a decisive difference between traditional and mobile coupons. As people carry mobile devices at the mall all the time, the mobile coupons cannot be lost as paper coupons; they can be stored in mobile phone memory until redemption (Banerjee and Yancey, 2010). Herewith, mobile coupons are very difficult to forget.

Readability: The memory of consumers towards mobile text messages is 60 per cent. That is four times more compared to print and broadcast commercials, which realize only 15 per cent recall (Fortin, 2000). Hsu et al. (2006) also argued that the reading rate of short messages is nearly 100 per cent which makes it an effective way for marketing communication.

Eco-friendly: Lastly, an important benefit of mobile coupons is the fact that they do not pollute the environment. This is a major issue to consider because high amount of traditional paper coupons are distributed by mail, and they form a lot of waste because of the low redemption rates. Only in the United States the amount of FSI's distributed annually is 291 000 000 000 pieces (NCH, 2011). With an estimated average FSI size of 248x219 mm, amount of paper used would be annually 15 804 square kilometers which would be equivalent to over 2 million soccer fields.

2.4 Drawbacks of mobile coupons

As companies are starting to believe in technology around mobile coupons, they now concentrate on understanding the consumer. Direct Marketing Association (2011) did a comprehensive consumer study on why people who had received mobile coupons did not want to use them. The inquiry showed that almost half of the respondents said that they have never utilized mobile offers due to uninteresting offers. The result indicates that although new media is interesting, face value needs to be attractive enough. The second interesting finding in this research was that 13 % of those who had never responded to mobile offers said it was because their mobile phones would not allow them to respond. Although easier mobile phones and user interfaces are coming to the market, mobile promotions need to consider the technology limitations of the target audience. Thirdly, education cap still remained a factor why people fail to use mobile coupons. 5 % of those who had never responded to mobile offers said it was because they simply did not know how to use and redeem them. The result shows that people are not still familiarized to use mobile coupons and companies need to consider an education component to their mobile sales promotion efforts.

Consumer study of Direct Marketing Association familiarized some main drawbacks of mobile coupons but it did not concern the major problem of mobile medium. Due to consumers' ubiquity and intimacy of mobile phones, people are concerned with their privacy and want to control their mobile phone usage. Research on mobile marketing communication (Leppäniemi and Karjaluoto, 2005; Scharl et al., 2005) has stressed the danger of unsolicited and inappropriate messages which can generally be called as a spam. These examinations showed that consumers lose their sense of control regarding mobile coupons on issues such as who sends mobile coupons to them, how many they will receive and when they will receive them. Privacy concerns indicate that consumer study should not concentrate only to explain why people do not use mobile coupons but to figure out the whole process behind the intention to redeem mobile coupons.

As characteristics of mobile coupons have been discussed, it is time to understand the consumer better. Next adoption models are introduced.

3 EVOLUTION OF ADOPTION MODELS

Researchers mainly apply the cognitive and social theories of decision making when they want to find out a consumer's adoption to a certain issue. Three models stand out as the most widely applied; the Theory of Reasoned Action (TRA), Theory of Planned Behavior and Technology Acceptance Model (TAM). Taylor and Todd (1995) found out that all of these three models perform well in terms of fit and were roughly equivalent in terms of their ability to explain behavior. Thousands of studies have used one of these models and at the moment the field of Information and Communication Technologies (ICT) is applying these models due to the rapid growth of new systems and applications (Pedersen, 2005). Next, the evolution of adoption models is discussed and hereafter their use in the mobile context is outlined.

3.1 Theory of Reasoned Action

The first broadly used adoption model, Theory of Reasoned Action, was formulated in 1967 in an attempt to provide consistency in research of the relationship between behavior and attitude (Fishbein and Ajzen 1975; Werner 2004). The primary purpose of the TRA is to understand how the behavior of people can be predicted and changed. The TRA has been tested in numerous studies across many areas including investigating software privacy (Aleassa et al., 2011) and Internet banking (Yousafzai et al., 2010). The main assumption of the TRA is that individuals are normally quite rational, and they use systematically information available to them. In other words, people consider the implications of their actions before they decide to launch or not launch a given behavior (Ajzen and Fishbein, 1980).

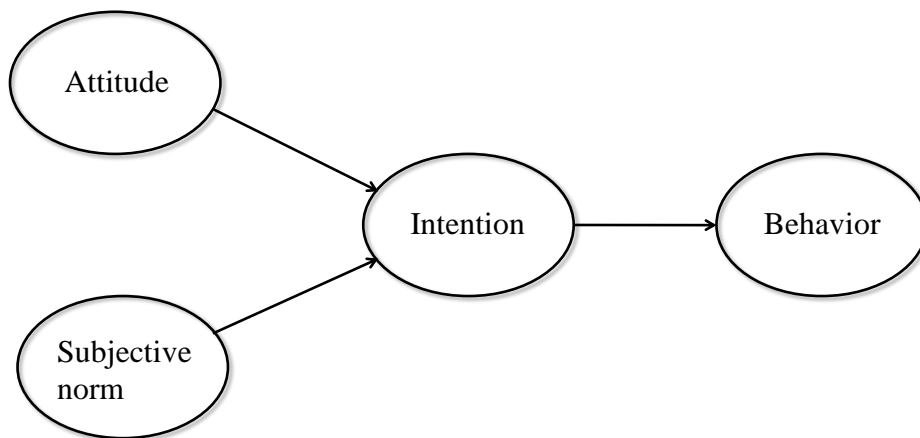


Figure 1. Theory of Reasoned Action (Fishbein and Ajzen 1975)

According to Fishbein and Ajzen (1975), the TRA sees the intention rather than the attitude as the main predictor of behavior. This main predictor of the TRA measures an individual's relative strength of intention to perform a behavior. As the link between the behavior and the intention is emphasized in the TRA, other indirect links should not be forgotten. Figure 1 shows that the intention is a function of both attitude and subjective norm toward the behavior. An attitude can be seen as an individual's favorable or unfavorable perception toward a specific behavior (Werner 2004). A subjective norm can be defined as an individual's subjective judgment regarding others' preference and support for a behavior (Werner 2004). As these determinants have a different perspective, Fishbein and Ajzen (1975) pointed out that depending on the individual and situation, these determinants might have very different effects on behavioral intention. In this manner, the weight is associated with the attitude and subjective norm in a different research context.

Many researchers, like Taylor and Todd (1995), have found that the TRA has the ability to explain human behavior. In addition, the TRA provides a simple explanation where and how to target a consumer's behavioral change attempts. Sheppard et al. (1988) also noticed that the TRA functioned extremely well in the prediction of goals and activities when explicit choice among alternatives was involved. Furthermore Hartwick and Barki (1994) stated, that in the

adoption of technology the TRA showed good results and particularly in the early phase the importance of the subjective norm stood out. But studies have also got some unfavorable results for TRA. One limitation is that the TRA only aims to analyze the volitional behavior. In other words, it excludes a wide range of behaviors which are for example spontaneous, impulsive and habitual or simply scripted (Bentler and Speckart, 1979; Langer, 1989). The second limitation of the TRA is that it assumes when intention to act is formed, one will be free to act without limitation (Sheppard et al., 1988). In practice, constraints such as the limited ability, time, environmental or organizational limits and unconscious habits will limit the freedom to act. The theory of planned behavior (TPB) attempts to resolve these limitations.

3.2 Theory of Planned Behavior

The TBP was first proposed by Icek Ajzen in 1985, and it is considered as an extension of the TRA. As well as the Theory of Reasoned Action, also the Theory of Planned Behavior assumes that behavior is deliberated and planned. The main difference between the TPB and TRA is that the TPB takes also account the conditions where individuals do not have the complete control over their behavior. (Taylor and Todd, 1995) In these uncontrollable conditions an individual's behavioral intention cannot be the exclusive determinant of behavior. The TPB resolves the problem by adding perceived behavioral control as a new determinant to explain the relationship between behavioral intention and actual behavior. Hereby, the TPB explains (figure 2) an individual's behavior by behavioral intention, which is jointly affected by the attitude, subjective norm and perceived behavioral control. (Huang and Chuang, 2007)

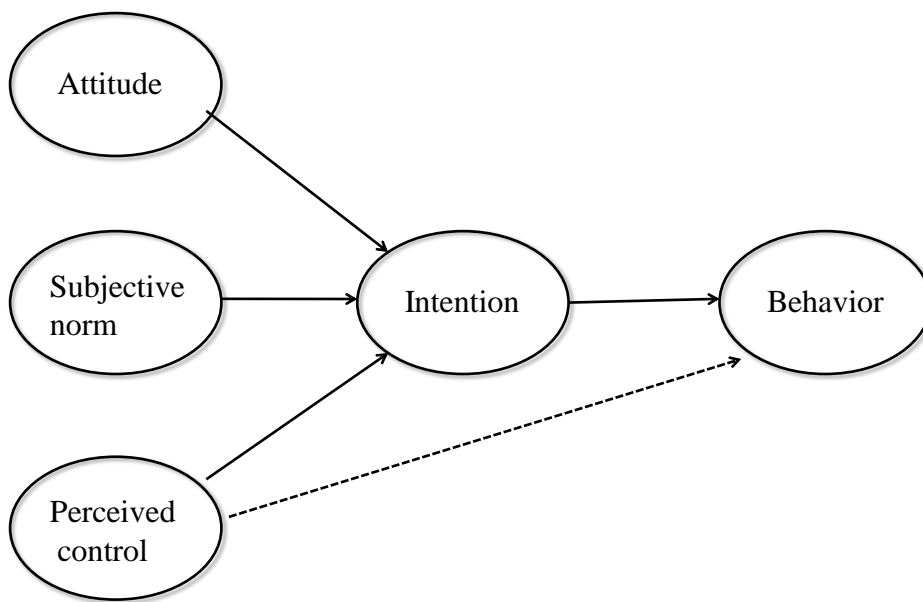


Figure 2. Theory of Planned Behaviour (Ajzen, 1985)

Next the perceived control will be explored in more detail as the other determinants of the TBP are explained already in the TRA. Ajzen (1991) defines perceived control as an individual's perception of the ease or difficulty of conducting the behavior. There are two components which influence on the perceived control; facilitating conditions and self-efficacy. Facilitating conditions reflect the availability of resources which an individual needs to launch a behavior. These resources can be for example time, money or knowledge. The second component is self-efficacy which can be seen as an individual's self-confidence which determines the ability to perform a behavior. These two components are influenced and weighted by the perceived power of the control belief. In other words, for instance an individual's past experience, anticipation of upcoming circumstances and the attitude of the influential norm can affect these two components and in this way also affect the perceived control (Mckenzie and Jurs, 1993).

Many adoption model studies (Ajzen and Driver, 1992; Han, 2005) have confirmed the predictive ability of human behavior of the TBP in various settings. This extension of the TRA has been used for example in the prediction of health-related, recycling and driving behavior. The predictive power of the TBP has also been demonstrated in the consumer (Smith et al., 2007) and entrepreneurship domain (Krueger and Casrud, 1993). Albeit the TBP has been proven to explain the behavior also some limitations have been found. According to

Taylor and Todd (1995), the TBP is unidimensional. They point out that the facilitating conditions and self-efficacy in the perceived control are hardly taken into consideration. Another limitation is that the determinants are idiosyncratic to the empirical setting, making it difficult to operationalize the TPB. Davis et al. (1989) tries to overcome these consistent and generalizable limitations with the Tecnology Acceptance model.

3.3 Technology Acceptance Model

Compared to the two previous models, the Technology Acceptance Model is the most well-known and used adoption model (Money and Turner, 2004). The Technology Acceptance Model is an adaptation of the TRA, and it is particularly customized to illustrate and measure an user’s computer acceptance. According to the founder of the TAM, Fred Davis (1989), the purpose of the TAM is to be a theoretically justified general model which can be used in wide range of computing technologies. The TAM tries to achieve this goal by identifying a small number of fundamental variables. In addition, the variables try to be specific, easy to understand and can be manipulated through system design and implementation.

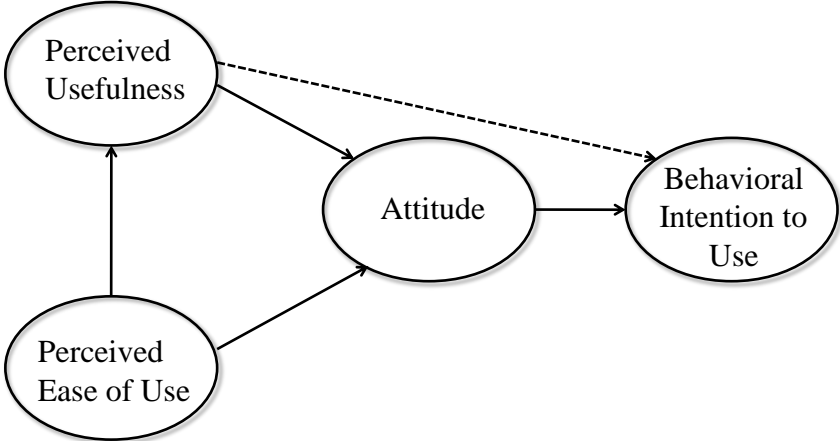


Figure 3. Technology Acceptance Model (Davis, 1989)

According to Davis (1993), user acceptance is often the decisive factor when information system’s success or failure is determined. The TAM can be illustrated as an individual’s actual use of a technology system which is influenced directly or indirectly by the user’s

behavioral intentions, attitude, perceived usefulness and ease of the system. The attitude is determined by the perceived ease of use and usefulness. The perceived ease of use refers to the user's belief that using the new technology would require minimum effort. The perceived ease of use affects the perceived usefulness which refers to the degree to which the user believes the new technology would enhance job performance. As the perceived usefulness affects directly to the user's attitude, it also determines directly the behavioral intention with the attitude.

The TAM has received empirical support in information technology research. Although the TAM is applied mainly to explain the intention to use technology in organizations, it is also used to explain the technology acceptance in everyday life (Dabholkar and Bagozzi, 2002). Because the subject of studies have extended beyond the original research subject of the TAM, the model has evolved in time and modified to reach the best explanation power. One of the main extensions of the TAM is the TAM2 which introduced the social influence (subjective norm, voluntariness and image), cognitive instrumental processes (job relevance, output quality and result demonstrability) and experience to the original model. In addition, many studies have added the perceived control to the original TAM. Benbasat and Barki (2007) states ironically that the extended TAM is not very different from the TBP since these new variables like the social influence and perceived control overlap considerably with the TBP. Next these three adoption models are reviewed in the mobile context.

3.4 Adoption models and mobile coupons

There are two reasons why mobile coupon research uses adoption models. Firstly, the previous traditional coupon, email coupon and mobile coupon studies have all supported the adoption models. According to Fortin (2000), in traditional coupon research the most convincing theoretical application has been the TRA. In addition, Kang et al. (2006) confirmed that the Theory of Reasoned Action effectively explains the traditional coupon usage intention. In contrast to the traditional coupon studies, they also pointed out that in the email coupon usage the TBP set out intention better than the TRA. Furthermore, in mobile coupon sector three analyses have investigated the consumer's determinants to redeem mobile coupons. These studies used the TAM and TBP and in all of them the explanation power of

the models was high (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010).

Secondly, the main difference between mobile coupons and traditional coupons lies in their communication environment and communication model. Because of a mobile phone, mobile coupons have special characteristics like ubiquity, time-specificity, localization, personalization and interactivity. Due to these special characteristics mobile coupons should be compared to the other mobile context studies. According to Pedersen (2005), even though the literature on the use of mobile phones is quite extensive in a work context, surprisingly few analyses have been found to focus on a consumer's adoption decision. Pedersen is one of these researchers who have found that in the mobile service context, at least from a measurement perspective, the adoption research models might successfully be applied to the mobile context. Next these other mobile context explorations which have applied adoption models are discussed in more detail. These experiments include mobile service, commerce and marketing communication. In the table 1, the studies are assorted by their adoption models, main determinants and technology and application.

			Main determinants				
Author/s	Technology and Application	Model Used	Perceived Usefulness	Perceived Ease of Use	Attitude	Subjective Norm	Perceived control
Hung et al. (2003)	Mobile WAP Services	Modified TPB	x	x	x	x	x
Muk (2007)	SMS Advertising	Modified TRA	x	x	x	x	
Kleijnen et al. (2004)	Mobile Finance Services	Modified TAM	x	x	x	x	
Tsang et al. (2004)	Mobile Advertising	Modified TRA	x		x		x
Bauer et al. (2005)	Mobile Marketing	Extended TRA	x		x	x	x
Han (2005)	Mobile Services	TAM	x	x		x*	
Nysveen et al. (2005)	Mobile Services	Modified TAM	x	x	x	x	x
Pedersen (2005)	Mobile Services	TAM and TPB	x	x	x	x	x
Hsu et al. (2006)	Mobile Coupons	Decomposed TPB	x	x	x	x*	x
Yang (2007)	Mobile Advertising	Extended TAM		x	x	x	x
Zhang and Mao (2007)	SMS Advertising	Modified TAM	x	x		x	x
Dickinger and Kleijnen (2008)	Mobile Coupons	Extended TAM	x	x	x	x*	x
Jayasingh and Eze (2010)	Mobile Coupons	Extended TAM	x	x	x	x	x
Soroa-Koury and Yang (2010)	Mobile Advertising	Extended TAM	x	x	x	x	

* result is not statistically significant

Table 1. Mobile context studies which have applied adoption models

From the table 1, five findings can be made. Firstly, all of these analyses have modified and extended the adoption models. The adoption models comparison study by Taylor and Todd (1995) showed that only 40 % of the variance in usage intention and behavior could be explained using the basic TAM or TPB. In addition, the same paper also confirmed that the

extensions of these models provided an increase in the explanation of behavioral intention. The same kind of results and criticism are shown in mobile context studies. The TRA, TPB and TAM have been criticized to be unidimensional and too simple to explain the consumer's real life adoption decisions (eg. Han, 2005; Nysveen et al., 2005; Pedersen, 2005; Muk, 2007). The researchers have answered to the criticism and have tried to combine the best aspects of the adoption models together. Next these best parts are discussed further.

The second finding of the literature review indicates that, despite the extensions and modifications of the TRA, TPB and TAM, all of these models have the same basic framework. Table 1 shows that 6 out of 14 mobile context studies have all the same main determinants despite the different adoption models. In addition, out of 14 mobile context papers 6 other papers lack of just one determinant from the basic framework. One example from the mobile coupon studies can be shown to give an understanding of the main structure. Hsu et al. (2006) used the decomposed TPB and Dickinger and Kleijnen (2008) the extended TAM to find out the intention to redeem mobile coupons. Although both of the studies have additional determinants in their research model, the basic framework in both models is the same; the attitude, subjective norm and perceived control all dictate the consumer intention. Furthermore, the perceived usefulness and ease of use affect the attitude. The basic framework can be seen visually in figure 4. One more interesting finding can be made from the basic structure; in almost all previewed studies researchers have stopped their path model to the intention whereas the original TRA and TBP have gone further to explore the behavior.

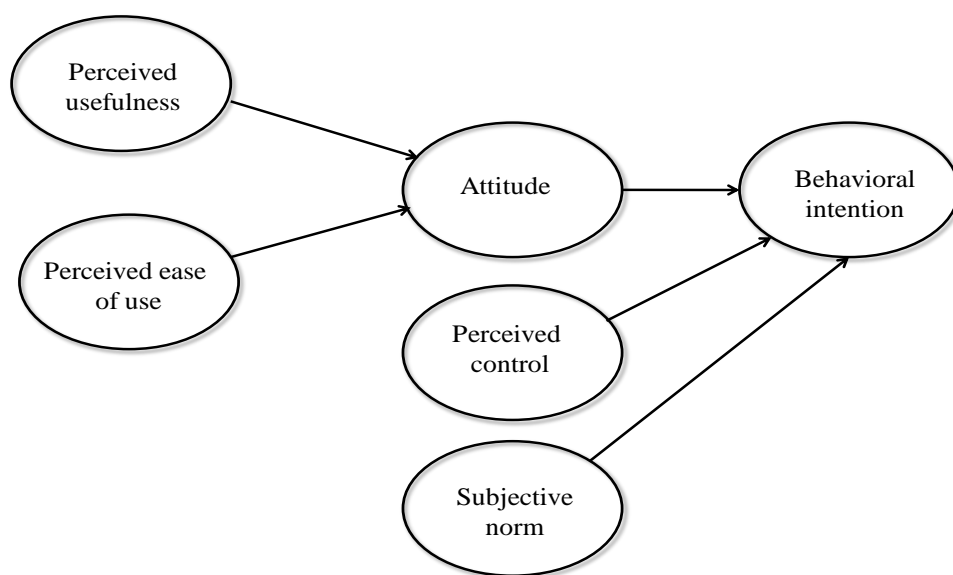


Figure 4. The basic framework of mobile context studies

Thirdly, as the basic framework has been revealed, the results of the main determinants are discussed more closely. The results of all studies indicate that the perceived usefulness and perceived ease of use have significant effect on the attitude. These experiments point out that the mobile commerce or services, which are easy to learn and add value to the consumers, are the most appealing. Literature preview also shows that in all analyses the attitude has been illustrated to influence considerably on the intention. The perceived control has been significant in all mobile context studies. These results show that when consumers lack experience with the new product or service they find themselves in a situation of high risk. Consumers therefore try to reduce the risk by increasing their own perceived control.

Fourthly, among the main determinants, the subjective norm is the only determinant which is not evident in every single research it has been used. Out of the 13 studies, in 3 of them the subjective norm has not been significant. Two of these are mobile coupon papers (Hsu et al., 2006; Dickinger and Kleijnen, 2008). Furthermore, other mobile context explorations have shown mixed results on the subjective norm. For instance Pedersen (2005) found less support for extending the model with the subjective norm, but when extending the model with both subjective norm and perceived control, the subjective norm was also significant. On the other hand, Yang (2007) revealed that the one of the social influence factors, the subjective norm, was found to significantly predict the user attitude toward mobile commerce use.

Finally, behind the main determinants the next most used and talked determinant is entertainment. According to Nysveen et al. 2005, to explain the consumer intention to use mobile services or marketing communication, the adoption theories should take into account nonutilitarian motives to get a flavor of technology usage in everyday life. Based on the literature review, the most confirmed nonutilitarian motive in the mobile context is the entertainment; 5 papers have used the entertainment and most of them are mobile marketing communication analyses. These studies have outlined (Tsang et al., 2004; Bauer et al., 2005; Yang, 2007; Zhang and Mao, 2008) that only if mobile marketing messages are creative and entertaining, consumers will develop a positive attitude towards mobile marketing leading to the behavioral intention to use mobile marketing services. In addition, 3 studies have stated that the entertainment should be one of the determinants which should be examined further. One of these inciters is Dickinger and Kleijnen (2008) who pointed out that mobile coupons' content, design and appeal should be addressed in future studies. They also pointed out that although these issues seem rather trivial with the current status of mobile couponing, further technological advancements like MMS-messages with pictures will lead to more sophisticated options with regard to the aesthetics of mobile coupons.

Based on the literature review, the following determinants should be taken into more detail consideration:

- Attitude
- Perceived usefulness
- Perceived ease of use
- Perceived control
- Subjective norm
- Enjoyment

In the next chapter each of these determinants are explained more specifically in a mobile coupon perspective. The findings of this chapter are the foundations to discover the determinants of consumer intentions to redeem mobile coupons.

4 DETERMINANTS TO REDEEM MOBILE COUPONS

As the previous chapter introduced the main findings of the adoption models in the mobile context research, this chapter goes in more detail. Each of the founded determinants is described and modified to be the best suitable to tackle the research question. To achieve this goal different perspectives are taken into consideration; literature is reviewed from various coupon analyses to different mobile context studies. Next the determinants will be explained and the hypotheses will be generated. Finally, the research model is introduced.

4.1 Attitude

In almost three decades ago Shimp and Kavas (1984) applied the Theory of Reasoned Action for the first time to research traditional coupons. They found out that the attitude was the most powerful determinant to explain the intention to use the coupons. As well as back then, coupon researchers still state that the attitude has a significant influence on the intention to redeem coupons. For example, in mobile coupon research all three papers (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010) found out that the attitude had the main effect on consumers' intentions to redeem the mobile coupons. Furthermore, the significance of the attitude has been confirmed in a cross-cultural study. Research of Muk (2007) revealed that both young American and Korean consumers' decisions to sign up with promotional mobile messages were based on both attitude and social influence, with attitude having the strongest effect.

The mobile context studies have also stated that the attitude has a significant explanation power when consumers are intending to use mobile commerce, services or marketing communication. Results of Tsang et al. (2004) showed that a favorable attitude significantly affects the intention to receive mobile advertisements. In addition, Kleijnen et al. (2004) pointed out that the positive attitude has a positive effect on the intention to use mobile services. These results are in line with the original statement of Ajzen and Fishbein (1975) which argues that the more positive a person's behavioral attitude, the stronger the behavioral inclination, and on the contrary, the more negative the attitude, the weaker the behavioral inclination. This reasoning leads to the following hypothesis about the attitude.

H1: Attitude toward mobile coupons has a direct, positive effect on intention to redeem mobile coupons.

In all mobile context research, the attitude has been a multidimensional construct. Most mobile context analyses and all mobile coupon studies have used the original TAM structure, where the perceived usefulness and perceived ease of use have a direct influence on the attitude. All of these explorations have confirmed the linkages. In addition, based on the literature review the entertainment has been used most of the times as an indirect determinant. Mostly the entertainment has influenced on the utility and attitude. For instance, Tsang et al. (2004) found that entertainment is the most important factor contributing positive attitudes toward mobile advertising. Based on the literature review and hedonistic stimuli which the entertainment possesses, the entertainment influences directly on the attitude and indirectly on the intention in this research. Next these indirect determinants are explained more carefully.

4.1.1 Perceived usefulness

The literature review showed consistent results that the perceived usefulness is a significant antecedent of the attitude in the mobile context. Although the results have been coherent, the definitions of perceived usefulness have varied depending on the field of mobile research. The mobile service and commerce studies have defined the perceived usefulness same way as Fred Davis originally defined it; the degree to which a person believes that using a particular system would enhance his or her job performance. This specification is especially customized to the work context where components such as effectiveness and efficiency are important. Mobile marketing communication analyses have had a different perspective. In these examinations, (e.g. Hung et al., 2003; Hsu et al., 2006; Zhang and Mao, 2008) the perceived usefulness refers to the individual's subjective assessment of the utilities offered by the technology. Mobile marketing communication research has taken influence on the theory of diffusion of innovations which one factor is a relative advantage. The relative advantage can be seen as perceived benefits of innovations, and it contains an economic benefit, image enhancement, convenience and satisfaction. Muk (2007) has modified these benefits in the mobile context. These benefits are (1) monetary savings (as in couponing); (2) convenience (as in location-based ad alerts while shopping); (3) shopper's feelings to be a better consumer when using SMS; and (4) collecting rewards by participating in promotional activities.

Like other mobile context research also mobile coupon analyses have recognized the explanation power of perceived usefulness. Both papers by Hsu et al. (2006) and Jayasingh and Eze (2010) showed that the perceived usefulness is the most effective determinant on a consumer's attitude. These experiments pointed out that the perceived usefulness had twice higher explanation power compared to the other determinants which influence on the attitude. Third mobile coupon analysis by Dickinger and Kleijnen (2008) redefined the perceived usefulness as the economic benefit where monetary value was emphasized. One interesting notice is that the economic benefit had twice lower explanation power compared to the other two studies which applied perceived usefulness. Two conclusions can be made from these results. Firstly, the perceived usefulness is a powerful determinant and should be divided into smaller pieces to understand it better. Secondly, the determinant should be divided into the economic and non-economic benefits.

Mobile coupon analyses have defined the perceived usefulness in the same way as mobile marketing communication studies. This research distinguishes the satisfaction, convenience and the feeling of being a better consumer when using mobile coupons as the non-economic benefit which positively influences on the attitude.

H2: Non-economic benefit has a positive effect on attitude.

According to Patel (2001), the actual or perceived monetary rewards from coupon usage appear to foster the favorable attitude and lead to the spousal encouragement to continue the behavior. Incentives are also considered to have an impact on the consumer intention to receive mobile advertising under a given attitude (Tsang et al., 2004). In the ABI (2008) research, 70 percent of consumers indicated that mobile incentives would increase or probably would increase their response. The incentives that received the most positive response in the ABI research were real-world monetary incentives like discounts and coupons for retail storefronts.

Literature on traditional coupon's attractiveness and redemption rates (Mittal, 1994; Ramaswamy and Srinivasan, 1998; Raghurir, 2004) unveils the importance of the economic benefit; as the value of the coupons increases, the consumers' evaluations of the coupons become more positive. Dickinger and Kleijnen (2008) also confirmed that the economic

benefit is one of the fundamental parts to attract the consumer intention to redeem mobile coupons. Consequently, a positive relationship between the economic benefit and attitude toward mobile coupons is expected.

H3: Economic benefit has a direct, positive effect on attitude towards mobile coupons.

4.1.2 Entertainment

The rapid development of mobile technology has opened new possibilities for marketers to get consumers' attention. On the other hand, at the same time consumers want more pleasant and entertaining experience in the mobile medium. According to Nysveen et al. (2005), research has shown that these hedonistic motives are important issues in technology usage in everyday life. The adoption models have been specially criticized because they have focused more on a working context and have excluded the hedonistic motives. The mobile context literature review shows that many mobile marketing communication studies have responded to the criticism and have added entertainment to their adoption models. These analyses (Tsang et al., 2004; Bauer et al., 2005; Yang, 2007; Zhang and Mao, 2008) outline that only if the mobile marketing messages are creative and entertaining, consumers will develop a positive attitude towards the mobile marketing. This positive attitude will finally lead further to the behavioral intention to use mobile marketing services.

Both traditional and mobile coupon studies have never used the entertainment as a determinant in their research models but many of them have stated the importance of the entertainment. For example Bawa et al. (1997) suggested that by paying attention to the design of the traditional coupon promotion, companies might be able to increase the coupon redemption behavior. In addition, Dickinger and Kleijnen (2008) pointed out that the effective message content and the design of the coupon should also be addressed in the future mobile coupon studies. They also stated that future research should investigate what stimuli are the most appealing to mobile users. On account of the previous statement, mobile couponing can draw a parallel between mobile marketing; both of them try to get consumers' attention. Especially in push mobile couponing, coupons' content, design and appeal play an important role when consumers are deciding whether or not to accept coupons. In the pull model, the entertainment value of mobile coupons is not as important as in the push model because

consumers need to make an effort to get mobile coupons. In the pull models companies should focus on for example the Internet site banner which consumers can click to download mobile coupons.

As this study concentrates solely on push mobile couponing, the entertainment is measured with SMS and MMS. With SMS people can send messages which are at the most 160 characters long. MMS on the other hand is a format for messages which covers a combination of text, sounds, images and even videos (Lee et al., 2007). Barwise and Strong (2002) stated that MMS provides a richer content than SMS but it is build on the success of SMS based on similar digital and interactive communication. Park et al. (2008) studied three groups of advertisements; animated picture; static picture; and simple text. The result showed that the recall and recognition is better with images and specially animated images compared to the text advertisements. However, the experiment also pointed out that people do not like flashy and effusive colored images. Furthermore, Cheng et al. 2009 made research on a consumer's attitudes on different types of mobile advertisements. They found out that the entertainment influences towards attitude more on MMS-type mobile advertising than SMS-type mobile advertising.

As the importance of getting people's attention in mobile medium is rising, academics are starting to pay more attention to the entertainment. Lim and Benbasat (2000) found that a medium that allows sending and receiving rich information with multiple cues is more likely to have higher playfulness with less effort needed. Okazaki (2008) studied the determinant factors of mobile-based word of mouth and pointed out that the effect of entertainment value on the attitude is greater than the perceived usefulness. In consequence of these results the next hypotheses can be made:

H4: Entertainment has a direct, positive effect on attitude towards mobile coupons.

4.1.3 Ease of use

Mobile couponing faces new challenges compared to traditional couponing. While consumers do not need to cut and collect coupons from different newspapers and magazines anymore, consumers might find that the redemption of the mobile coupon itself is not entirely effortless.

As Direct Marketing Association (2011) research pointed out, one of the main reasons why consumers did not use mobile coupons was that respondents did not know how to use their mobile phones. In addition, inquiry showed that the process of redeeming mobile coupons found to be insurmountable for some consumers. Direct Marketing Association research (2011) shows that consumers appear to be worried using the mobile coupons because it might be complicated and cost more in effort than the coupons are worth to them.

The ease of use can be seen to play a significant part in mobile sector as a whole. Nysveen et al. (2005) investigated extensively the consumer intention to use mobile services. They found out that the ease of use is a stronger motivational factor for using goal-directed mobile services than for using experiential mobile services. As mobile coupon activity can be seen as a goal-directed activity, all of the mobile coupon studies support Nysveen et al. (2005) findings; the ease of use is a significant antecedents of the attitude towards mobile coupons (e.g. Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010).

Although mobile coupon research has concluded the importance of the ease of use, they have employed different terms with different meanings. Hsu et al., (2006) and Jayasingh and Eze (2010) have stucked to the ease of use, and they have defined it as easiness to understand, learn and operate with mobile coupons. Dickinger and Kleijnen (2008) have applied the term redemption effort which is defined as specific investments that need to be made by the consumer to obtain the full use of the coupons. Comparing these different terms and definitions with each other two conclusions can be made. Firstly, these terms are opposite to each other. Secondly, the ease of use is a wider concept which can be adjusted to any new innovation whereas the redemption effort is more detailed and takes coupon characteristics more into consideration.

There is one more factor to support the usage of the redemption effort in research. Due to the push method mobile coupons only challenge consumers' skills in dealing with the functionality of the mobile phone. Because the previous mobile coupon research has taken into account both push and pull method, the wider definition and the term is reasonable. For instance, in the pull method the process already starts with getting mobile coupons to the mobile phone. The study only limits to the push method and therefore as Ramaswamy and Srinivasan (1998) proposed, the greater the effort required redeeming a coupon, the less

positive the consumer evaluations of the coupon will be. Thus, it is proposed that the effort involved with the redeeming of mobile coupons has a negative impact on the attitude.

H5: Redemption effort has a direct, negative effect on attitude towards mobile coupons.

4.2 Perceived control

Research regarding the new technology coupons (i.e. email coupons and mobile coupons) indicates that, in technology-mediated environments, consumers are concerned about the amount of control that can be endeavored (Kang et al., 2006). Consequently, for the mobile coupons, the perceived control is recognized as a crucial factor in the decision making process (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010). According to Dickinger and Kleijnen (2008), the perceived control significantly adds the explanatory value of adoption models, particularly when investigating the goal-directed activities such as the coupon redemption.

The perceived control has been understood differently in mobile context studies. Most mobile service and commerce analyses, like Nysveen et al. (2005) stated that the perceived control is made up of elements of individual limitations, which are incidental to the individual user's economy, experience and skill. This definition is in line with Ajzen (1985), the founder of TBP, who originally defined the perceived control as an individual's perception of the ease or difficulty of conducting a behavior. Two mobile service studies and one mobile coupon analysis have continued the footsteps of Azjen and have divided the perceived control into self-efficacy and facilitating conditions (Hung et al., 2003; Pedersen, 2005; Hsu et al., 2006). Mobile coupon research of Hsu et al. (2006) has defined the self-efficacy as a perceived ability of a consumer to use mobile coupons whether or not he or she has enough ability and knowledge. In addition, the facilitating condition is referred as the amount of resource or obstacles that a consumer has when using mobile coupons. In these three studies the self-efficacy provided consistent results which influence on the behavioral intention. On the other hand, the facilitating conditions were not evident on two out of three examinations, including mobile coupon study by Hsu et al. (2006).

In mobile marketing communication consumers face different control issues compared to the mobile commerce and services. Privacy is one of the terms that mobile marketing communication has used in conjunction with the perceived control. Some psychological studies provide evidence that the control is a key factor which explains the individual perceptions of privacy invasion (Sheehan and Hoy 2000). In mobile marketing communication, the perceived control is related to the general assessment of whether or not consumers can control their privacy in the entire process of receiving promotional messages (Barwise and Strong, 2002). One of the main concerns is spam. By using the mobile medium marketers can reach consumers anytime and anywhere. The Mobile Marketing Association (2011) identifies spam as an unwanted or unsolicited message and lists a frequency, relevance, control and confidentiality as critical factors which make the message an unwanted one. Furthermore Hsu et al. (2006), who defined the perceived control differently, admitted that the volume of junk messages received by consumers may also affect their perception and intention to redeem mobile coupons.

In the mobile marketing communication studies other term which has been related to the perceived control is trust. The trust associated with mobile marketing communication is mainly perceived as data security. In more detail, this means that the consumers are concerned about the data manipulation, unauthorized data access and unwanted tracking of usage patterns. (Zhang and Mao, 2008) According to Bauer et al. (2005) an establishment of a well-founded basis of trust is a prerequisite for the consumer's acceptance of mobile marketing communication. In this way, the consumers are more willing to lower their control; they permit the reception of promotion messages on their highly personal medium and provide personal data for the personalization of those messages. Bedford (2005) also confirmed that the trust has an effect on the behavior intention in mobile commerce field. He found that the trust factor increased notably the total variance of his research model.

As the meaning and content of perceived control in the mobile context is clarifying, there is also one important issue which needs to be considered. The previous mobile coupon studies have not told apart the push and pull mobile couponing from each other. In Finland, the legislation states that the push mobile marketing communication must be based on explicit permission. However, when a customer relationship exists, mobile marketers are allowed to advertise similar products or services in a case that a customer has an easy possibility to opt out of the communication (Leppäniemi and Karjaluoto, 2005). According to Unni and

Harmon (2007), the push and pull mobile communication methods have a different influence on consumers. They stated that perceived control becomes more important with the more intrusive push messages. In this case, consumers are likely to experience some loss of control, even though they would have opted to receive these messages. Compared to the pull method consumers have to make an effort on receiving a message and in this way they would have a greater control over their messages.

Although Hsu et al. (2006) worried about the specific skills and resources needed to redeem mobile coupons, all mobile coupon studies stated that the trust and privacy issues are important. Both other papers (Dickinger and Kleijnen, 2008; Jayasing and Eze, 2010) included the security and privacy issues in the perceived control and it significantly influenced the consumer intention to redeem mobile coupons. On account of mobile coupon research and the previous paragraphs, the perceived control can be seen as a determinant which expresses how a consumer perceives the security and privacy issues in the entire process of receiving push mobile coupons. In other words, the more perceived control a consumer has the more likely he or she redeems mobile coupons. Compared to the previous research, this study only considers how consumers perceive the push messages. Based on these issues, the following hypothesis about the perceived control can be made.

H6: Perceived control over receiving mobile coupons has a direct, positive effect on the intention to redeem mobile coupons.

4.3 Subjective norm

Research of traditional and email coupon has recognized that the subjective norm substantially influences on the behavioral intention. In 1984, Shimp and Kavas were the first researchers who found out that consumers are sensitive to the social consequences of using coupons. Twenty years later, Kang et al. (2006) confirmed that the subjective norm is still a valuable explanatory variable to explain the traditional coupon usage. In addition, they found out that the subjective norm is a very important determinant for the behavioral intention to use email coupons. Although the traditional and email coupon analyses have been unanimous of the importance of the subjective norm, mobile coupon research has got mixed results. To explore these results in more detail, the terms and definitions are introduced.

In the mobile context, three terms have been used to explain the social effect. They are the social influence, social norm and subjective norm. These terms have been understood and applied many times as synonyms but more a depth review of the definitions shows that they emphasize different issues. Most mobile context studies have used the subjective norm as their primary term and its original definition by Fishbein and Ajzen (1975). This definition states subjective norm as “an individual’s perception of behavior and behavior consequences by person’s important to him/her”. Fishbein and Ajzen (1975) noted that this specification of the subjective norm refers to the perceptions of the preferences of significant others regarding the worth to engage a specific behavior. However, Ajzen (1991) also proposed later in his papers that the subjective norm refers to the individual perceptions of social pressure in terms of whether or not to launch a particular behavior. These two perspectives address that the subjective norm covers not only the preferences of significant others, but also other social factors. These social factors are emphasized on the definitions of social influence and social norm. Both terms are viewed as regulations of behavior and act as social controls. (Jaysingh and Eze, 2010; Soroa-Koury and Yang, 2010) This exploration uses the term subjective norm which takes account both personal and external environmental social effect.

Two mobile context analyses have broadened the subjective norm further. Hsu et al. (2006) studied the redemption of mobile coupons and divided the subjective norm into primary and secondary groups. In this study, the primary group meant a group of people who have a close interaction with each other like parents, family and friends. The secondary group referred to the celebrities and brands which people have less contact and which can be seen in television ads, newspapers and magazines etc. Their exploration showed that in this allocation the subjective norm was not evident. Nevertheless, the primary group was considered to have a major factor influencing the subjective norm but the influence of the secondary group was not evident. Furthermore, Hung et al. (2003) studied WAP service adoption and they also divided the subjective norm into internal and external influence. Researchers concluded that the WAP users were influenced more by the opinions of peers than by external influence like mass media reports. These studies confirm that the interaction of significant others like parents, family and friends should only be included in the subjective norm.

The mobile context literature review, including the mobile coupons studies, stated that the results of the subjective norm are not coherent. Research by Jaysingh and Eze (2010),

indicated that the social influence plays a very important role in behavioral intention. Dickinger and Kleijnen (2008) got the opposite result and they declared that the social norm has no significant effect on the intention to redeem mobile coupons. Furthermore as Hsu et al. (2006) also pointed out, the primary group was only considered to have an effect on the redemption intention. But the traditional coupon and email coupon analyses agree on the importance of the subjective norm. According to Dickinger and Kleijnen (2008) mixed results can be derived from different mediums. They contend that the low level of the visibility of the mobile coupons compared to the traditional paper coupon and printed email coupons could be the reason for converse results.

Research of both mobile context and mobile coupon showed mixed results of the subjective norm and hereby a moderate effect of the subjective norm is expected. The findings of Taylor and Todd and other scholars have proven that the linkage is direct from the subjective norm to behavioral intention. Thus, the more positive the subjective norm, the stronger the behavioral intention; the more negative the subjective norm, the weaker the behavioral intention. Hence, the second hypothesis for this study can be inferred as:

H7: Subjective norm will have a direct influence on the intention to redeem mobile coupons.

4.4 Research model and hypotheses

The main objective of this study is to discover the determinants of consumer intentions to redeem mobile coupons by using adoption models which exploit cognitive and social theories of decision making. Here the research model sums up the findings of the literature review.

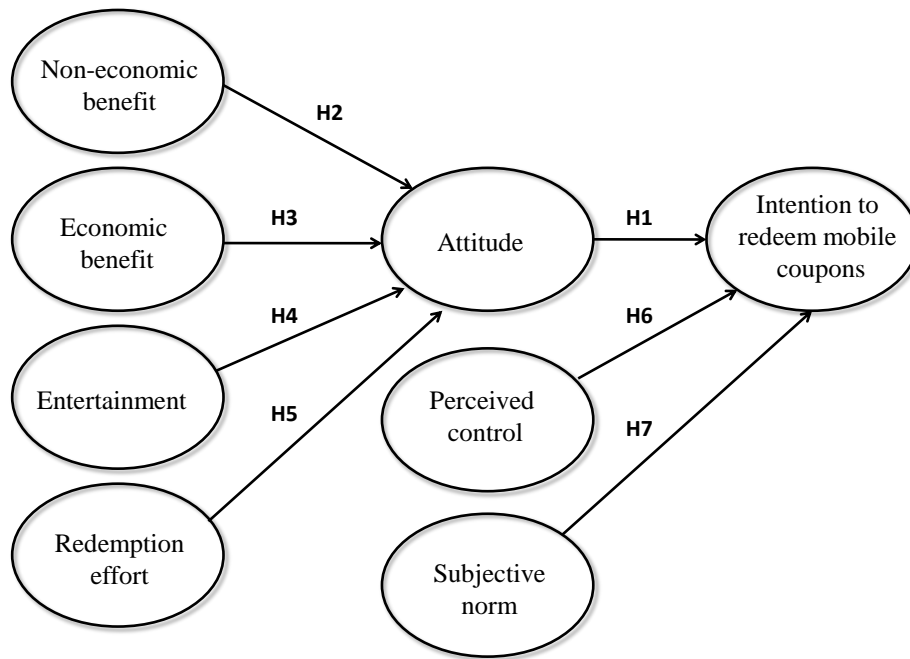


Figure 5. Research model and hypotheses

H1: Attitude toward mobile coupons has a direct, positive effect on intention to redeem mobile coupons.

H2: Non-economic benefit has a positive effect on their behavioral attitude.

H3: Economic benefit has a direct, positive effect on attitude towards mobile coupons.

H4: Entertainment has a direct, positive effect on attitude towards mobile coupons.

H5: Redemption effort has a direct, negative effect on attitude towards mobile coupons.

H6: Perceived control over receiving mobile coupons has a direct, positive effect on the intention to redeem mobile coupons.

H7: Subjective norm will have a direct influence on the intention to redeem mobile coupons.

Next the research methodology is reviewed. Hereafter the results and conclusions are introduced.

5 METHODOLOGY

In this chapter the data collection and questionnaire construction and development are introduced. In addition, the analysis methods of this study are explained in more detail. But first the fundamental issues of the methodology are pointed out.

The quantitative research approach was chosen to this exploration because it helped to achieve a wide audience. Compared to a small target group the results were more comprehensive and more generalized. With quantitative approach the study was able to respond well to the main research problem and sub question. The aim of this exploration was to investigate the consumer intentions to redeem mobile coupons. The formulated hypotheses were tested using the structural equation modeling to determine whether relationships exist between the variables presented in the research framework. In addition, the analysis of variance was used to explain whether there are statistical differences between the consumers who have already used mobile coupons and consumers who have never used them.

The assessment of validity and reliability is an important part of academic research. The validity means that the analysis will examine exactly what it is supposed to. The reliability refers how certain it would be to get the same results if the study would be renewed using the same method. (Malhotra and Birks 2007) The analyses of the validity and reliability are included in the next paragraphs and at that in the result partition.

5.1 Data collection

The purpose of the data collection was to find the same kind of profile of respondents which the other mobile coupon researchers have used. In this way, comparison with the previous research could be made in the Finnish context. The three previous papers (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010) focused on the general profile of mobile service users who are primarily young and well-educated people (A.T. Kearney, 2011). The most powerful profile variable for these studies was age. The age allocation of these analyses ranged from 15 to 33 and the average age was 25 years old. The age allocation of the previous research is confirmed by the recent data from the consumer insight specialist GFK MRI (2011). They found that the people at the age ranging between 17-34 years are 57 % more likely to recall seeing SMS promotions on their mobile devices compared with the average mobile phone user. Furthermore, they are 93 % more likely to have responded to text promotions or made purchases through text messages.

Besides the age, the education was also one more important factor which the previous studies took into consideration. For instance, Dickinger and Kleijnen's sample (2008) covered highly

educated people as more than 80 % completed A-Levels or a university degree. In addition, in Hsu et al. (2006) case the biggest group was students which accounted 77.3 percent of the total respondents. One additional notice from the samples of these studies is that the gender was distributed quite evenly in all cases.

The previous analyses have used different methods to collect data. For example, Hsu et al. (2006) tried to find young people to respond to their survey from business and commercial centre. Dickinger and Kleijnen (2008) posted a link to an online survey in various online forums (e.g., mobile phones, SMS and mobile games) and invited consumers to participate. This study also used the online data collection due to its several advantages. Compared to the offline collection it is for instance cheaper, quicker, and it reaches a wider audience (Malhotra and Birks, 2007). Some researchers have been uncertain to use the online data collection but recent examinations show that online research produces equal results compared to offline obtained data (Shankar et al., 2003). According to Deutskens et al. (2006), accuracy, completeness and response quality of online analyses are similar to offline analyses and herewith there are no longer barriers to use online data collection formats.

After decision of collecting data online was made the next question was to figure out where is the best place to get connected with young well educated people. Facebook was chosen to be the place for data collection due to research by Statistics Finland (2011). In their study it is said that the social network services are mostly interested by young people and young adults. Almost 80 per cent of 16-34 years old people are registered users in one social network service; the Facebook is the most popular. This age group is also the biggest in the Facebook in Finland with 52 per cent. In addition, these people are the most active quick message user segment. Furthermore, Finland is a well educated country. According to Statistics Finland, 39 per cent of 25-34 years old have graduated as bachelor or master in Finland. Over 33 per cent of 20-34 years old are still studying at a polytechnic or a university. In this manner, it could be assumed that there are well educated young people in the Facebook.

Data collection succeeded in its purpose. The questionnaire was conducted with the Survey Monkey online software and was held in 5.12.2010-19.12.2010. It was sent to 250 persons in the Facebook and 190 responses were received. The response rate was 76 per cent. Both the sample size and response rate can be said to be competent (Kline 2005). The biggest age groups were 19-25 and 26-33 and they totally covered 84 per cent of the respondents. The

average age for the respondents was 24 years old. Over 76 per cent of the respondents were graduated or were studying bachelor's or master's degree. When high school graduates or students are summed up with the previous people the number climbs to 90 per cent. In addition, gender was distributed quite evenly; 43 per cent of the respondents were men and 57 per cent were women. Hereby, the comparison with the previous research can be made.

5.2 Survey construction and development

A questionnaire survey method was employed to collect empirical data. The benefits of using the questionnaire survey in this study were convenience and the rapid turnaround of data collection. Furthermore, surveys have the ability to make inferences about the consumer behavior for given populations based on a sample (Babbie, 1990). Nevertheless, the survey method has its own limitations. One of the most noted limitations is the fact that it relies on a self-report method of data collection. In addition, the intentional deception, poor memory, or misunderstanding of the questions can all lower the reliability (Czaja and Blair, 2005).

The questionnaire survey was designed to measure the constructs presented in the research framework. A pre-test was carried out to validate the instrument. The feedback about the layout of the questionnaire and content of the questions were obtained. Some changes were made to the survey as deemed appropriate. For example, the pre-test showed that it is important to ensure that the respondents know what a mobile coupon is. For this reason a short introduction about the mobile coupon was provided (see Appendix 1). In addition, the pre-test also pointed out that to get respondents to pay attention to the questions some of these questions needed to be coded in a reverse way (DeCoster, 2011).

The survey itself was straightforward and simple. There were first a few demographic questions and after that 2 to 4 questions for each construct which all needed to be answered. The items for each construct in the questionnaire were selected on the basis of an extensive literature review. All scales were measured on a 7-point Likert scale, ranging from 1 strongly disagree, to 7 strongly agree, unless indicated otherwise. The score of four was considered neutral. The 7-point Likert scale was adopted from the previous studies. Table 2 reports the final items for each construct.

Construct	Item	Based on
Attitude	In general, I find mobile coupons: Wise Useless Interesting Boring	Shimp and Kavas (1984)/ Dickinger and Kleijnen (2008)
Non-Economic benefit	Using mobile coupons would make me a smart consumer. Using mobile coupons would make my shopping easier. Using mobile coupons make shopping more enjoyable.	Venkatesh and Davis (2000)/ Jayansing and Eze (2010)
Economic benefit	Mobile coupons can save my money. I believe that the financial gain from using mobile coupons is worthwhile.	Mittal (1994)/ Dickinger and Kleijnen (2008)
Entertainment	I feel that receiving SMS coupons is entertaining. I feel that receiving MMS coupons is entertaining. I prefer to receive text based messages more than image messages.	Tsang et al. (2004)
Redemption effort	Usage of mobile coupons is time consuming. * It is hard to redeem mobile coupons. *	Mittal (1994)/ Ramaswamy and Srinivasan (1998)
Subjective Norm	Most people who are important to me think I should use mobile coupons. My close friends think I should use mobile coupons. Most members of my family think I should use mobile coupons. My peers think I should use mobile coupons.	Shimp and Kanvas (1984)/ Jayansigh and Eze (2010)
Perceived control	I am in control over the amount of mobile coupons I receive. I can control when I receive mobile coupons on my mobile phone. I can control where and how my personal information is used. Mobile coupons add spam mail to my mobile phone.*	Kang et al. (2006)/ Dickinger and Kleijnen (2008)
Intention	I will intend to use mobile coupons in doing my shopping. I will intend to use mobile coupons if they are offered to me.	Jayansigh and Eze (2010)

*Reverse coded items

Table 2. Operationalizations of latent constructs

Adopting items used in the previous analyses were used in order to ensure the validity and reliability of research. All of the items above were earlier tested in the traditional coupon or email coupon studies. In addition, they were tested in the mobile coupon explorations. The entertainment was the only construct which did not have validated items in the traditional or mobile coupon context. These items were taken from one of the most cited mobile advertising paper by Tsang et al. (2004).

5.3 Analysis methods

In the next paragraphs the analysis methods of this study are introduced. The main analyzing method was the structural equation modeling. The analysis of variance was used to investigate the sub question.

5.3.1 Structural equation modeling

The structural equation modeling (SEM) is one of the most popular and well-known advanced approach used in the different fields like in marketing but in academic papers it has rarely received any attention (Steenkamp and Baumgartner, 2000). The purpose of SEM is to give a simultaneous analysis of multiple relationships, provide measures of overall model fit and explain the significance of each of the relationships between the constructs (Kline, 2005). The SEM involves three primary components: items (indicators), constructs (latent variables) and path relationships. These primary components are utilized in two different parts in SEM: measurement model informs the relations between constructs and their items and the structural model shows potential causal dependencies between constructs. As these parts point out, there is a glimpse of factor analysis and regression analysis in SEM. But next benefits and functions of SEM are discussed in more detail in the forthcoming two paragraphs.

5.3.1.1 Reasons to adopt structural equation modeling

There are five reasons by Steenkamp and Baumgartner (2000) why structural equation modeling is adopted in this research. First of all, compared to the multiple regression analysis the SEM allows a range of relationships between constructs to be included in the analysis. Secondly, like in this study many if not most scientific constructs – e.g. the benefit, attitude,

social norm and perceived control – have many aspects and cannot be directly observed; they can only be measured through items. Thirdly, items of theoretical constructs always have some measurement error, and the correspondence between constructs and their measures is an explicit component for the model. In SEM, the interplay between constructs and measures plays a decisive role in the theory development and model testing, and in deriving empirical generalizations.

Fourthly, research models are always simplified representations of reality and before any conclusions can be made from a model, the level to which the model is compatible with the data should be assured. SEM can be seen more covariance-based rather than variance-based. It can be said that the estimation techniques employed in the SEM attempt to minimize a function which depends on the differences between the variances and covariances. These are implied by the model and the observed variances and covariances. Compared to other modeling techniques, the SEM is more focused on explaining phenomena than to predict specific outcome variables. Finally, although the SEM has also potential for the decision support modeling, it is the most useful method for theory testing, which is a key phase in developing the research models. As such, the SEM offers a great potential for furthering theory development.

5.3.1.2 Stages of Structural Equation Modeling

There are three stages in the SEM: the preparation phase, measurement modeling phase and finally the structural modeling phase. First of all, the preparation phase is where the foundation of SEM for the entire remainder of the SEM analysis is built. The preparation phase starts with choosing the items to measure each construct. The researcher must invest significant time and effort to this early phase in the research process to make sure the measurement quality will enable valid conclusions to be drawn. (Hair et al., 2010) When a model has items borrowed from various sources reporting other analyses, a pretest is recommended to screen items for appropriateness. In this study items were adopted from related the previous research. In addition, the pre-test was made to ensure validity of the survey. There are also other issues which need to be taken into account in the preparation phase:

- No matter the modeling approach, the sample size should be sufficient to allow the model to run. As a general guideline, Kline (2005) advises that sample sizes less than 100 are small and between 100 and 200 are medium. Sample sizes that exceed 200 cases can be considered large. He also wants to point out that the advice is not absolute because issues such as the model's complexity must also be considered.
- Like in other multivariate data analysis also in the SEM it is important to handle missing data properly. Kline (2005) suggests to use for example pairwise deletion of missing cases when the amount of missing data is less than 10 percent and the sample size is about 250 or more. This study handled missing data problem in the survey construction phase. In this phase it was possible to adjust the survey software settings in a way that only surveys which are fully completed are accepted.
- The SEM procedure can be conducted by using three alternative modeling strategies. In *a strictly confirmatory strategy* the researcher formulates one model, obtains empirical data to test it and supports or rejects the model. In *an alternative models strategy* the researcher specifies several alternative models derived from prior theory and after analyzing a single set of empirical data, selects one of the models. In *a model generating strategy* the researcher specifies a theoretical or a conceptual model. (Jöreskog, 1993) In this study, the third modeling strategy is used.

The second stage is a measurement modeling. Its purpose is to find out whether the items load to the specific construct enough and properly. In addition, the validity and reliability of the research model are monitored and tested. In this stage confirmatory factor analysis enables to find a set of parameter estimates which produce estimated covariance values that most closely match observed covariance values. The closer these values come, the better the model is said to fit. (Kline, 2005)

The measurement model uses multiple fit indices to test research models. According to Hair et al. (2010), fit information is important: even though the proposed paths between constructs are statistically significant, the research model may still have a poor fit to the data and lack validity. In addition, path analyses do not give information about the viability of direct paths between constructs excluded from the model. It is also important to realize that there are not any universal values to determine whether a model fits or not. Rather, the model context

should be taken into consideration when evaluating the fit. For instance, simple models with small samples should be held to different standards than more complex models tested with larger samples.

In the final stage of the SEM method, the structural modeling specifies the hypothesized causal relations between the constructs. The entire set of relationships that shape a SEM model can be represented visually using a path diagram. Each type of relationship is conventionally represented with a different type of arrow and abbreviated with a different character. In the figure 6, an example of simple path diagram can be seen. In this figure, arrows depict the impact of one construct on another. Additionally, the figure points out that the constructs can have an influence on many constructs and same level constructs can have an impact on each other.

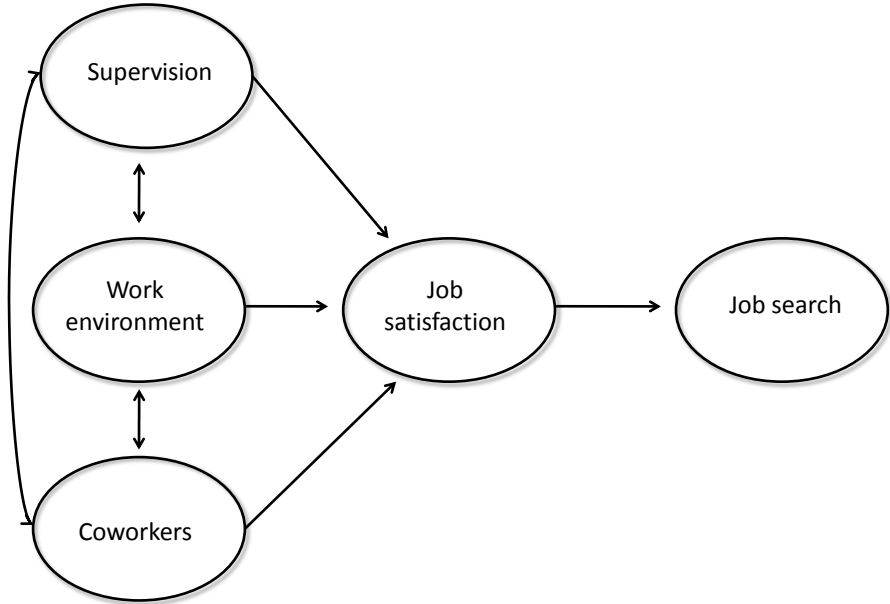


Figure 6. Path diagram of a simple structural model (Kline, 2005)

5.3.2 Analysis of variance

This research wanted to find out as additional information whether there were statistical differences between the consumers who have already used mobile coupons and consumers who have never used them. Best methodology to reveal the possible differences is the analysis

of variance (ANOVA). The ANOVA reveals the differences between the mean values of the dependent variables associated with the effect of the controlled independent variables. The basic premise of ANOVA, i.e. the null hypothesis, is that all means are equal. (Alkula et al., 1995) In its simplest form, the ANOVA contains one metric dependent variable and one or more independent variables. The ANOVA with one independent variable is called one-way analysis of variance where as the ANOVA with more than one independent variable is called n-way analysis of variance. (Malhotra and Birks, 2007) In order to be able to use the ANOVA, the dependent variables must be metric meaning that it is measured using an interval or ratio scale such as the 7-point Likert scale (Alkula et al., 1995).

In the ANOVA, two measures of variation are estimated: within groups and between groups. If these two measures of variation do not differ from each other it is likely that means of different groups are derived from similar distribution. Hereby these groups are not statistically significant. On the other hand, if these two variances are different enough from each other the null hypothesis can be rejected. In the ANOVA, F-test is used for statistical test to interpret in which probability the null hypothesis that the population means are equal can be rejected. (Malhotra and Birks, 2007) Next analysis methods are utilized and applied to show the results of the study.

6 RESULTS

This chapter presents the results of applying statistical methods to the data. First, the structural equation modeling was used to explain which hypotheses are significant when a consumer intends to redeem mobile coupons. Secondly, the study investigated with the analysis of variance whether there are statistical differences between the consumers who have already used mobile coupons and consumers who have never used them. But first a description about the sample is introduced.

6.1 Sample description

The purpose of data collection was to find the same kind of profile of respondents which other mobile coupon researchers have used. In this way, comparison with the previous analyses could be made in the Finnish context. In this study, general profile of a respondent is a young

person who is a well-educated and uses a mobile phone regularly. The general profile of a respondent is in line with three previous experiments (Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010). Next the sample is described in more detail.

The size of the sample was 190. The gender was distributed quite evenly; 43 % were men of the respondents and 57 % were women. In addition, the biggest age group of respondents was 19-25 with 47 per cent (see figure 7). The second biggest age group was 26-33 with 36 per cent. These two groups covered totally 84 per cent of the respondents. The average age for the respondents was 24 years old. The previous studies' age allocation ranged from 15 to 33 and the average age was 25 years old.

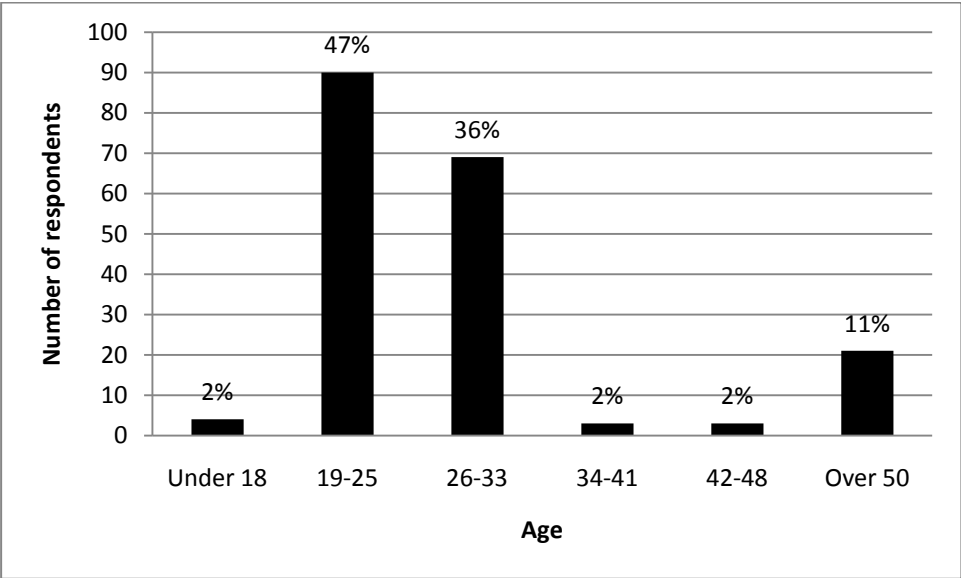


Figure 7. Age allocation of respondents

The research sample was covered with well-educated people. As figure 8 shows, over 76 per cent of the respondents had graduated or were studying bachelor's or master's degree. When high school graduates or students are summed up with previous people the number climbs to 90 per cent. The previous mobile coupon analyses have had the same kind degree allocation amongst respondents. For instance, sample by Dickinger and Kleijnen (2008), covered highly educated people where more than 80 % had completed a bachelor's or a master's degree.

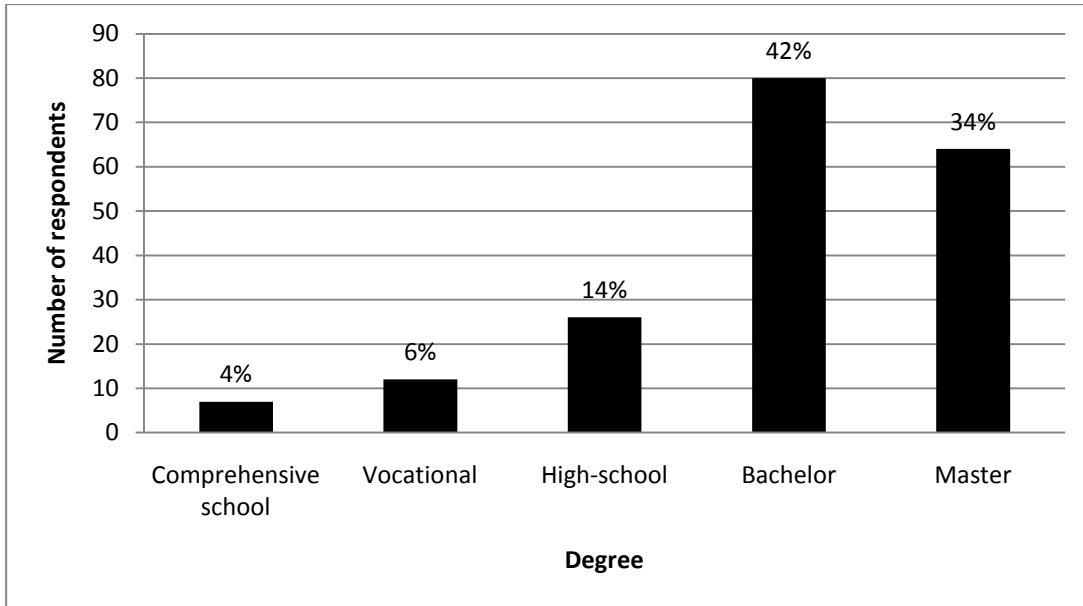


Figure 8. Degree allocation of respondents

The respondents were asked about their SMS messaging behavior. The result shows that the average respondent sends 34 SMS messages per week and receives same amount of SMS messages. If these amounts are divided per day respondents both send and receive over 4 SMS messages per 24 hours. In addition, to learn about respondents' perceptions to SMS promotion, questions similar to survey of Tsang et al. (2004) were asked. One question was about how much of a SMS advertisement respondents actually read. Figure 9 illustrates that 18 per cent of the respondents read nothing and over 40 per cent said they read the whole message. In addition, 30 percent read something; 17 per cent read only $\frac{1}{4}$, 10 per cent read half and 14 per cent read $\frac{3}{4}$ of the promotion message. Compared to study by Dickinger and Kleijnen (2008) there are less nothing readers and more everything readers in this research.

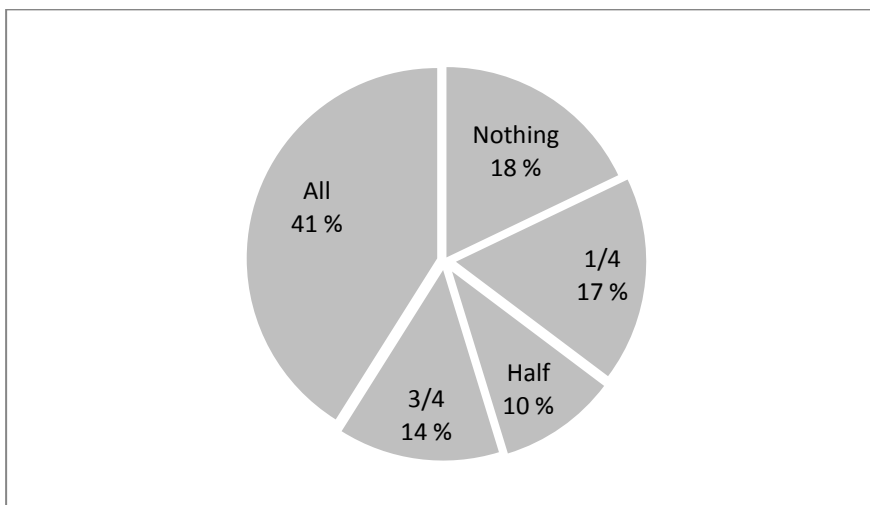


Figure 9. Readiness to read mobile promotions

The final question in the preliminary information collection phase was to find out whether respondents have used or not mobile coupons. Out of 190 respondents 141 did not have experience in mobile coupons and 49 had used mobile coupons before. The used respondents had consumed these mobile coupons in bars, coffee shops and mostly in shops like in clothing stores. When respondents of used and not used were compared there were not any significant differences in their profiles. Both of these profiles were highly educated, mostly studying or had graduated as bachelor or master. The average age was the same and gender was distributed almost evenly. The only difference between these two profiles is that the used respondent read more likely the entire promotion message.

6.2 Analysis of research model

The structural equation modeling proceeds in two stages. The analysis process starts with the measurement model stage where the reliability and validity of the measures and the research model are estimated. When the measures and model are ensured to be reliable and valid enough the research model is visualized and assessed in more detail in the structural model stage. These stages were conducted with LISREL 8.8 software.

6.2.1 Measurement model

The validity and reliability of the model was tested by various criteria. First the reliability of individual items was estimated by examining the loadings of measures with their construct. Generally, items with loadings over 0.6 are accepted. However, it is common to find measurement items with loadings below the cut off. (Kline, 2005) In this exploration, only one item loaded below the 0.60 threshold with a value of 0.51 (see table 3). This item was not rejected because the value was near the threshold, and it did not have significant negative influence on the model fit. The rest of the items ranged from 0.6 to 0.95 and were therefore considered reliable measures of the constructs.

Construct	Item	Factor Loading	Composite Reliability
Attitude	ATTa	0.81	0.84
	ATTb	0.74	
	ATTc	0.81	
	ATTd	0.70	
Non-Economic benefit	NEBa	0.60	0.84
	NEBb	0.84	
	NEBc	0.94	
Economic benefit	EBa	0.68	0.80
	EBb	0.94	
Entertainment	Ea	0.99	0.92
	Eb	0.84	
Redemption effort	REa	0.77	0.84
	REb	0.93	
Subjective Norm	SNa	0.89	0.94
	SNb	0.95	
	SNc	0.90	
	SNd	0.83	
Perceived control	PCa	0.83	0.82
	PCb	0.79	
	PCc	0.77	
	PCd	0.51	
Intention	Ia	0.94	0.91
	Ib	0.90	

Table 3. Measurement model: factor loading and composite reliability

In addition, as the table 3 shows, the composite reliability was estimated to evaluate the internal validity of the measurement model. In this study the composite reliabilities of the constructs ranged from 0.80 to 0.94. These were all greater than the benchmark of 0.70 recommended by Hair et al. (2006). Furthermore, Cronbach's alpha was used to reconfirm the convergent validity of the model. As well as the composite reliability, also Cronbach's alpha uses the benchmark of 0.70 as its threshold. In all constructs Cronbach's alpha exceeded the suggested value. These results ensure a proper ground for further analysis.

The previous criteria tested that the constructs and items were related to each other. There is another test on the convergent validity called the average variance extracted (AVE). A model can be said convergent valid if at least 50 percent of measurement variance is captured by the construct (Fornell and Larcker, 1981). The average variance extracted of all the constructs in

the model ranging from 0.54 to 0.84, indicating the good convergent validity of the model. The AVE can also be utilized further. Procedure by Fornell and Larcker (1981) tests that the constructs which should have no relationship they really do not have any relationship. They suggest assessing discriminant validity by investigating whether the AVE for the items is greater than their shared variance. That is to examine whether the square root of the AVE for a given construct is greater than the absolute value of the standardized correlation of the given construct with any other construct in the analysis. This procedure is shown in table 4 which demonstrates that the discriminant validity of the model is established.

Construct	AVE	1	2	3	4	5	6	7	8
1. Attitude	0.59	0.85							
2. Intention	0.65	0.86	0.91						
3. Non-Economic benefit	0.68	0.69	0.67	0.84					
4. Economic benefit	0.84	0.72	0.67	0.68	0.80				
5. Entertainment	0.73	0.65	0.62	0.50	0.50	0.91			
6. Redemption effort	0.80	0.48	0.44	0.45	0.55	0.40	0.84		
7. Subjective Norm	0.54	0.53	0.66	0.59	0.59	0.46	0.37	0.94	
8. Perceived control	0.84	0.20	0.28	0.18	0.08	0.39	0.05	0.04	0.82

Table 4. Correlation matrix of the constructs, AVEs and square root of the AVEs (on the diagonal)

In addition to all the criteria above, there are dozens of model fit indexes described in the SEM literature, and new indexes are being developed all the time. Kline (2005) proposes a set of the most important fit indexes that should be reported and interpreted when reporting the results of SEM analyses. These are (1) the chi-square, (2) Steiger–Lind root mean square error of approximation (RMSEA) with its 90 % confidence interval, (3) standardized root mean square residual (SRMR) and (4) Bentler comparative fit index (CFI). First of all, in this study the chi-square was 532.28 when degree of freedom was 208 and the p-value showed 0.00. Secondly, the RMSEA was 0.090 which can be said adequate. Thirdly, the standardized RMR passed under 0.08 with 0.077 which states a good fit. Finally, the CFI indicated 0.95 which is above 0.90 threshold associated with a model that fits well. Furthermore, all incremental fit indices are above 0.9 (IFI = 0.95, NFI=0.92, NNFI = 0.94, RFI = 0.91). All these values refer

to adequate or good model fit whereupon structural model can be uncovered (see all fit indexes from appendix 2).

6.2 Structural model

In this stage hypotheses are tested and a path diagram is shown. The explanatory power of the model was examined by using R² (squared multiple correlations). Together, three direct constructs explain 81 % of the variance observed in the intention to redeem mobile coupons. The hypotheses were tested by investigating the path coefficients, which show the completely standardized estimates and their respective t-values (appendixes 3 and 4). As it can be seen from the figure 10, the attitude is the most significant direct determinant for the intention to redeem mobile coupons. The attitude accounts 67 per cent of the variance in the redeeming intention. In addition, the subjective norm has a significant direct influence on the intention. It is also good to notice that although the subjective norm can be considered significant, the influence of attitude is still twice stronger. The third direct determinant, the perceived control, also influences moderately on the intention to redeem mobile coupons.

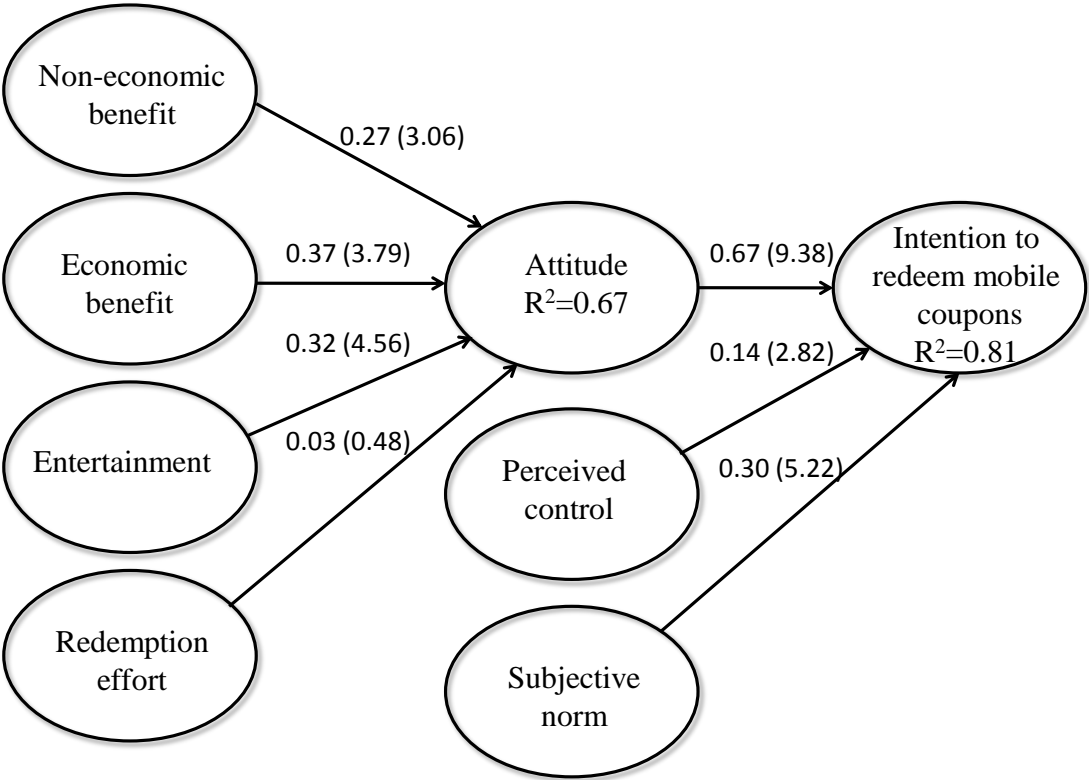


Figure 10. Structural model of intention to redeem mobile coupons

The indirect determinants are also important factors in the structural model. In this study there are four indirect determinants which influences through attitude. As assumed in the literature review, the economic benefit is the most significant indirect determinant. Furthermore, the non-economic benefit has a prominent influence on the attitude. One of the most interesting results is the significance of entertainment. The entertainment is the second most influencing indirect determinant after the economic benefit. Respondents also do not think that MMS messages would be more entertaining than SMS messages. Finally, the redemption effort was the only determinant which is not significant. The table 5 concludes the results of research.

Hypothesis	Relationship between latent variables	Verification results
H1	Attitude-> Intention to redeem	Established
H2	Non-economic benefit-> Attitude	Established
H3	Economic benefit -> Attitude	Established
H4	Entertainment-> Attitude	Established
H5	Redemption effort-> Attitude	Not established
H6	Perceived control-> Intention to redeem	Established
H7	Subjective norm-> Intention to redeem	Established

Table 5. Verification results of relationship of each construct

6.3 Differences between used and not used groups: analysis of variance

Research divided 190 respondents into two groups to test whether the previous use influences on answers. There were 49 respondents who had used mobile coupons before and 141 who did not have any experience. The analysis of variance was conducted with SAS Enterprise guide 4.2 and results are shown in table 6. The results indicate that there are statistically significant differences in all determinants despite one. This determinant is the perceived control. Next differences are explained in more detail.

Construct	Used		Not Used		Significance
	Mean	SD	Mean	SD	
Attitude	5.29	0.88	4.50	1.21	<.0001*
Intention	5.34	1.05	4.19	1.55	<.0001*
Non-Economic benefit	4.35	1.11	3.61	1.23	0.0002*
Economic benefit	5.52	1.06	4.68	1.15	<.0001*
Entertainment	3.96	1.25	3.28	1.50	0.0049*
Redemption effort	4.98	1.16	4.10	1.09	<.0001*
Subjective Norm	3.96	1.19	3.52	1.23	0.0290*
Perceived control	3.44	1.28	3.61	1.30	0.4169

* significant at 95 % confidence interval

Table 6. Analysis of variance: differences between groups of used and not used mobile coupons

Both groups have a slightly positive attitude towards mobile coupons. In addition, the previously used respondents think more positively about the mobile coupons compared to the never used respondents. The result is also supported in the responses of a survey question where the previously used respondents needed to estimate the last mobile coupon experience. Furthermore, the results of the intention to redeem mobile coupons behaved in a similar way as the attitude results. The only difference is that the gap between the two groups is greater; the used respondents view the intention to redeem mobile coupons as positively as the attitude but the not used group views the intention in a more neutral way.

Next indirect determinants are reported. The non-economic benefit is somewhat neutral for used group but never used group views the benefits slightly more negatively. The economic benefit is for both groups the most significant determinant and the used group is more agreeable of the economic benefits of mobile coupons. The entertainment does not get much respect among the two groups. The entertainment is neutral for the used group and for the not used group the entertainment is not important. The last indirect determinant, the redemption effort, gets more positive review from the groups. Respondents who have used mobile coupons think that the redemption is easy while never used respondents are more skeptical about the redemption effort.

Finally, the subjective norm and perceived control are scanned with these two groups. Both groups are not sure about the social influence. The used group feels the subjective norm is

quite neutral whereas never used group thinks that the subjective norm does not have so much influence on them. The perceived control is the only determinant where statistical difference cannot be stated. Both of the groups are worried about their privacy. Only significant difference can be found on one item of perceived control; the used group feels they do not have the control when mobile coupons are sent where never used respondents are not so worried about it.

7 CONCLUSIONS

The research introduced mobile coupons as a new distinctive and innovative way to promote products or services to small and medium sized companies. In addition, the study pointed out mobile coupons as a cost-effective tool to differentiate from other companies; at its best mobile coupons offer a personalized, direct and dialogue-oriented communication which adds value to the customers. The purpose of this analysis was to discover the determinants of consumer intentions to redeem mobile coupons. The results of the study help medium and small sized companies to get best out of this sales promotional opportunity.

The study contributes the contemporary and scarce mobile coupon research. The findings of the analysis strongly supported the appropriateness of using the basic structure of adoption models to understand the acceptance of mobile coupons from consumer's perspective. The research was first of its kind in separating the push and pull marketing communication model from each other concentrating solely on the push model. In addition, the context of Finland influenced on the experiment; the legislation states that mobile marketing communication must be based on explicit permission. Furthermore, this study was the first mobile coupon research which took the entertainment into consideration.

The different validity and reliability measures confirmed the research model solidity. The results showed that the subjective norm, perceived control and attitude explained directly 81 per cent of the intention to redeem mobile coupons. The attitude with its indirect determinants accounted for 67 percent of the redeeming intention. From among the indirect determinants, the economic benefit was the most significant and hereafter came the non-economic benefit and entertainment. The redemption effort was the only determinant in the research model which was not significant. Furthermore for the first time in mobile coupon research, the

differences between used and not used respondents were explored. The results showed that there were statistically significant differences in all determinants despite one. This determinant was the perceived control. The study also showed that the previously used group thought overall more positively about the mobile coupons than the never used group. Next these results are examined in more detail.

7.1 Summary and discussion

The theoretical part of the study began by discussing the differences between traditional coupons and mobile coupons. Five specific characteristics of the mobile medium were realized to be different compared to traditional media. These characteristics were ubiquity, time-specificity, localization, personalization and interactivity. In addition, the drawbacks of mobile coupons were found. The previous explorations showed that the one limitation is the cumbersome navigation and process to redeem mobile coupons. Furthermore, the main limitations were privacy issues because consumers want to control their mobile phone usage.

Next, three most used adoption models in the ICT research were introduced. These were the Theory of Reasoned Action, Theory of Planned Behavior and Technology Acceptance Model. There were two reasons why these models were adopted to the study. Firstly, the previous traditional coupon, email coupon and mobile coupon analyses have all supported adoption models. Secondly, the main difference between mobile coupons and traditional coupons lies in their communication environment and communication model. According to the previous examinations, the success of mobile coupons hinges on consumers' willingness to adopt new technology and engage in activities using new systems and devices. The literature preview was conducted to specify how mobile researchers have used adoption models in their analyses.

The literature review showed that despite the extensions and modifications of the TRA, TPB and TAM, all of these models have the same basic structure in the mobile context. The attitude, perceived control and subjective norm were found to influence directly on the intention. Furthermore, the perceived usefulness and ease of use were confirmed to be in the same basic model influencing directly to the attitude and indirectly to the intention. After the literature review, the determinants were explained in more detail. The same basic structure

stayed as the backbone for the research model but some modifications and specifications were made. The most visible modification was to divide the perceived usefulness into three subclasses. They were the non-economic benefit, economic benefit and entertainment. In addition, the term ease of use was changed to the redemption effort to fit the mobile coupon study better. Figure 11 shows the research model and the results of the model are discussed next in more detail.

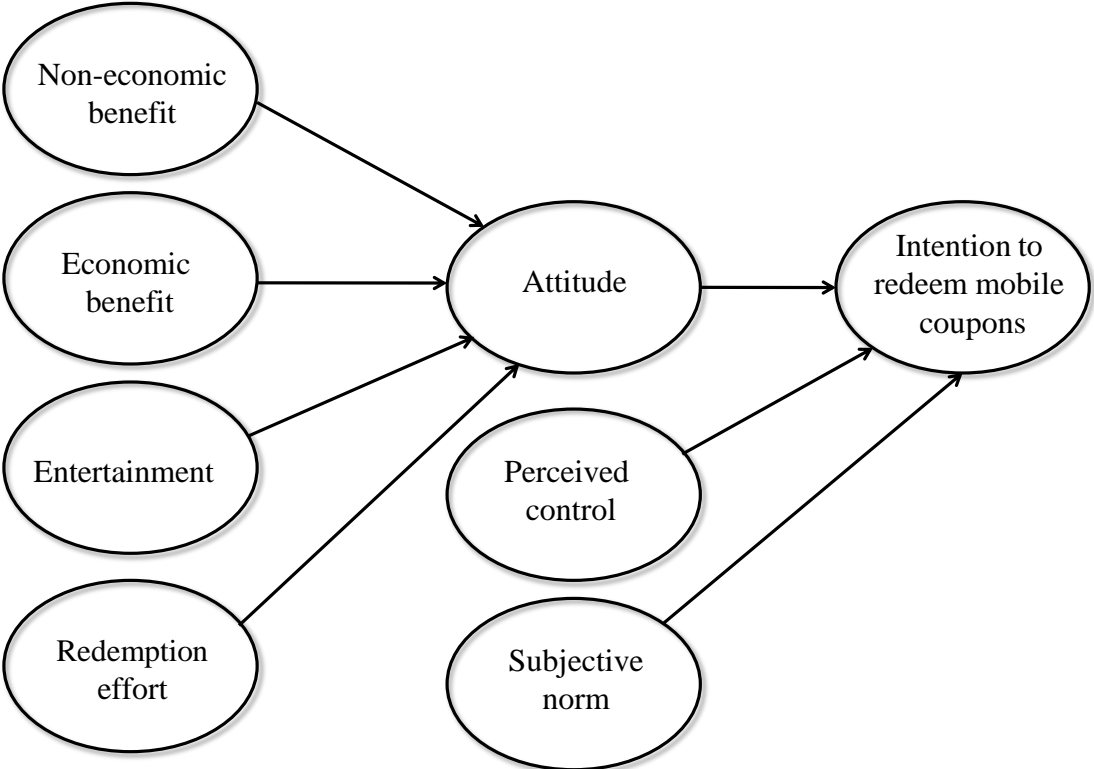


Figure 11. The research model of the study

The attitude was the most important determinant which influences directly on the intention to redeem mobile coupons. The result points out that the favorable attitude significantly affects the redemption rate, consistent with prior research findings on the previous mobile coupon and mobile advertising analyses (e.g., Tsang et al., 2004; Hsu et al., 2006; Dickinger and Kleijnen, 2008; Jayasingh and Eze, 2010). The attitude consisted of four determinants: the non-economic benefit, economic benefit, entertainment and redemption effort. From these indirect determinants, the economic was the most significant. The similar results with the previous studies (Mittal, 1994; Ramaswamy and Srinivasan 1998; Raghurir, 2004; Dickinger

and Kleijnen 2008) imply that the discount rate is the most influencing factor on consumer's attitude towards mobile coupons.

Research showed that the hedonistic and nonutilitarian motives are important issues and affect significantly the attitude. The non-economic benefit like the satisfaction, convenience and the feeling of being better consumer should also be taken into notice and be separated from the usual perceived usefulness determinant. In addition, the results showed that another hedonistic motive, the entertainment should be taken into account in mobile coupon research. The study result defend the mobile advertising papers (Tsang et al., 2004; Bauer et al., 2005; Yang, 2007; Zhang and Mao, 2008) which outlined that only if mobile marketing messages are creative and entertaining, consumers will develop a positive attitude towards mobile marketing communication. Especially in the push mobile couponing, coupon's content, design, and appeal play an important role when consumers are deciding whether or not to accept coupons.

The only determinant which did not affect the attitude and intention indirectly was the redemption effort. The result is not consistent with the other mobile coupon explorations. For instance, study by Dickinger and Kleijnen (2008) outlined the redemption effort is the main determinant of attitude. They explained that the cause of underused mobile coupons may be because potential users do not have enough knowledge resources required to use them. This research contends that consumers presume to know how to use their mobile phones and how to proceed when they want to redeem mobile coupons. There can be a few assumptions to explain the different result. One possible explanation could be that Finland was one of the first countries where mobile phones came to mainstream in 1990s. In this way the main age group of the sample, 19-33 years old has grown up with mobile phones and are more familiarized of their use.

In addition to the attitude, the two more direct determinants were the perceived control and subjective norm. The study showed that the perceived control influenced on the consumer's redemption intention. Despite the statistically significant effect, it was moderate compared to the other mobile coupon studies. The other mobile coupon analyses pointed out that consumers are concerned of the potential interferences in their mobile space. In other words, consumers are worried about their personal data security and when, where and from whom they receive promotional messages. The moderate fear of privacy and the lack of control may

be due to several reasons. First of all, the Finnish legislation states that mobile marketing communication must be based on explicit permission. Maybe this is one reason why consumers do not get many spam messages. In addition, many companies are afraid of mobile marketing communication because if it is not done properly consumers may get a negative image of the company. Maybe these are the few reasons why many respondents did not have any experience on mobile marketing communication messages. In other words, these people do not know what it is to lose control over their mobile space.

The third direct determinant was the subjective norm. The results of the study illustrated that the subjective norm plays an important role in redeeming intention. The result is in line with traditional and email coupon research. Furthermore, although the previous mobile coupon analyses have got mixed results, two papers showed similar results. Jaysingh and Eze, (2010) indicated that the social influence plays a very important role in the behavioral intention. In addition, although analysis by Hsu et al. (2006) did not confirm the subjective norm to be statistically significant, the primary group was considered to have an effect on the redemption intention. Presumably one reason for such a strong influence on the subjective norm is that this research focused only on the primary group. The result implies that the people who have a close interaction with each other like parents, family and friends influence on the intention. In addition to the structural equation modeling, the study wanted to find out whether there were statistical differences between the consumers who have already used mobile coupons and consumers who have never used them. The results indicated that there were statistically significant differences in all determinants despite one. This determinant was the perceived control. Next these differences are explained in more detail.

The both groups thought a slightly positively on the attitude and intention to redeem mobile coupons. The result shows that people are willing to give a change to mobile coupons. Furthermore, in both cases the previously used group thought more positively about the mobile coupons compared to the not used group. These findings point out that already used consumers' mobile coupon experiences have exceeded their expectations, and they have felt that mobile coupons add value for them. Never used consumers are on the other hand a little more skeptic about the mobile coupons but are somewhat open minded for the possible tryout. The benefits continue to be in line with the attitude and intention determinants. The non-economic benefit was quite neutral for the used group but the never used group felt slightly more negatively about the non-economic benefit. In addition, the economic benefit was the

most significant determinant for both groups and the used group was more agreeable for the economic benefits of mobile coupons. The results fit with the structural model which stated that both the economic and non-economic benefits are important. The structural modeling and variance of analysis both indicate that the visible and tangible benefits appeal a consumer more than the intangible mental benefit.

One of the third perceived usefulness parts, the entertainment did not receive much respect among the two groups. The entertainment was neutral for the used group and for the not used group it was not important. The one reason for the passive entertainment results could be the newness of mobile coupons. Consumers have used mostly SMS messages which are at the most 160 characters long and thus are difficult to make appealing. MMS on the other hand could change the mobile coupon attractiveness to another level; MMS can include a combination of text, sounds, images and even videos. The combination of the structural modeling results and these results indicate that the entertainment influences on the attitude but the potential of entertainment has not yet been reached with the SMS coupons. Maybe when MMS coupons are adopted more among consumers, the entertainment can be seen more positively among both groups.

The fourth and last indirect determinant, the redemption effort, was indicated to be easy among the used and never used group. The results support the structural equation modeling in a way that consumers do not find the redemption effort significant because they think it is or would be quite easy. In addition, the analysis of variance results support the structural equation modeling in the perceived control. The results show that there were not statistical differences among the two groups but both of them were concerned about their privacy. The structural equation modeling also addressed that the perceived control affects positively on the intention to redeem mobile coupons. These results state that the perceived control is important; consumers are concerned about their control and privacy in mobile media.

The third and final direct determinant, the subjective norm was conceived quite neutrally in both groups. The result also showed that the consumers who have used mobile coupons felt more important about the subjective norm (i.e. primary group's opinions). The structural model illustrated that the subjective norm influences the intention to redeem mobile coupons. The combination of both results address that maybe people underestimate the social influence in public but in a reality many issues are influenced by subjective norm. Maybe one of these issues is mobile coupons.

7.3 Limitations and future research

Although this study provides new insights into mobile coupon redemption, there are still limitations and new research questions which should be tackled in the future. The first limitation lies within the data available. The research data contained both used and not used respondents. Albeit many adoption analyses apply the intention approach, the future studies should consider using the real behavioral data. Since the future of mobile coupons as a marketing communication tool seems bright, this kind of data is more likely to be available in the future. In this way the real behavioral data could tackle the typical limitations of the predictive value of intentional measures and more information about the consumer's actual behavior could be obtained. In addition, the long term study for the same sample should be carried out to give more information how the consumers' opinions about the mobile coupons change in time.

The next limitations concern the methodology of the examination. First of all, the quantitative method used for the study presents its own limitations. A qualitative method would give more insights about the underlying dimensions of the determinants and developed research model. Secondly, all of the items in the questionnaire survey were designed elsewhere than in Finland. Herewith it cannot be sure whether these items are appropriate for the Finnish sample. Thirdly, all of the items were translated from English to Finnish. It is possible that in the translation phase items could have been changed a bit. The fourth limitation concerns the generalization of the findings. Although the sample size was quite reasonable, it consisted of Finnish consumers only. For instance, Finnish legislation is different than in other analyses and in this manner the results should only be considered in the Finnish context. Finally, it is good to notice that the profile of respondents was specific and the generalization for all Finnish consumers cannot be made.

There are four future research avenues which emerged from this study. First of all, this analysis only examined the push method of mobile coupons but there are also vast opportunities in the pull method. The broadness of the pull method of mobile coupons will make it difficult to examine; scaling down the practices of the pull method would be the only

appropriate way to investigate it. For instance, research could be scaled down to Internet or promotions in traditional media.

Secondly, the exploration only focused on SMS and MMS mobile coupons. Based on the study it can be concluded that SMS mobile coupons are the most used marketing communication tool and MMS coupons are just coming to consumers' awareness. In addition, it can be noticed that mobile Internet is growing rapidly and mobile email coupons are increasing at the same time. These two types of mobile coupons should be studied in more detail in the future.

Thirdly, MMS and mobile email coupons give a change for companies to design a more effective message content, design and appeal of the coupon. Although these issues seem rather trivial with the current status of mobile couponing, these new types of mobile coupons can contain color, pictures, sounds and even videos. Future research should investigate which stimuli are the most appealing to consumers.

Finally, one of five characteristics of the mobile coupon should be covered more closely. The localization, i.e. the possibility to use advertisements that are based on consumer locations, would allow for personalized offers that are relevant for the customer (Leppäniemi and Karjaluoto, 2005). There are already services like Foursquare which gives an opportunity for consumers to explore their city and earn offers at the same time with the GPS localization check in method. In addition, Groupon and Facebook are already testing the instant location-based discount offers. Although companies are finally starting to realize the possibilities of mobile localization, little is still known about the consumers' attitudes toward such a highly personalized promotional content via mobile phones.

7.2 Managerial implications

This research hands over number of important managerial implications. The results showed that the consumer attitude is the most influencing determinant on the consumer intention to redeem mobile coupons. This study implied that the consumers who have used mobile coupons view their experience positively and are willing to try them again. In addition, the consumers who have never used mobile coupons are willing to give a change to them.

Furthermore, the results indicated that the economic benefit is the most important issue to take into consideration after the attitude. While companies cannot increase the value of mobile coupons indefinitely, it is important to notice also the nonutilitarian determinants which add value to consumers. One of these determinants is the non-economic benefit which means for instance consumer satisfaction and convenience. Furthermore, the entertainment is another hedonistic determinant whereby companies can invoke consumers' interests towards mobile coupons.

There are several other determinants which influence the intention to redeem mobile coupons. Although the redemption effort was considered to be easy and unimportant, still possibilities, protocols, and service processes should be educated to consumers. Furthermore, policies of companies should be brought forward in order to diminish consumers' fear of spamming and feelings of intrusiveness. These concerns can be reduced by for instance increasing relevance of the message and giving platforms for consumers to easily block the mobile coupons. These kinds of actions and clear policies will lower the fear of spamming and increase the level of perceived control. Finally, primary group's word of mouth should carefully be taken into account; it can quickly enhance or decrease the interest in the mobile coupons. In this manner all of these determinants above should be considered closely before mobile coupon campaigns are published.

The validated model provides a useful framework for managers when they need to assess the possibility of success for mobile coupon introductions, and to design mobile coupon campaigns. The study results revealed the determinants which affect directly and indirectly the consumer intention to redeem mobile coupons which can be used for further research in the future.

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Appendix 1. Survey

The survey was conducted in Finnish but on the page 42 on the table 2. Operationalizations of latent constructs, the main questions of the survey can be found in English.

Mobiilikuponkien lunastamiseen vaikuttavat tekijät

1. Johdanto

Tervetuloa vastaamaan kyselyyni!

Tämän kyselyn tarkoituksena on selvittää asenteita mobiilikuponkeja kohtaan. Mobiilikuponki tarkoittaa tekstiviesti- tai multimediaviestiä, jonka yritykset, kuten pikaruokaravintolat ja vähittäismyymälät, lähettävät myyminenestämiseksi. Mobiilikuponngissa on alennuskoodi, joka säilytetään puhelimen muistissa ja lunastetaan tuotetta tai palvelua ostettaessa.

Kyselyn täyttämiseen kuluu aikaa noin kaksi minuuttia.

Kiitos tuestasi.

2. Taustatiedot

1. Sukupuoleni

- Mies
 Nainen

2. Ikäni

- Alle 18
 19-25
 26-33
 34-41
 42-48
 Yli 50

3. Koulutustasoni

- Peruskoulututkinto
 Ammattitutkinto
 Ylioppilas
 Alempi korkeakoulututkinto
 Ylempi korkeakoulututkinto

4. Kuinka monta

tekstiviestiä (kpl) lähetät _____
viikossa

tekstiviestiä (kpl) _____
vastaanotat viikossa

Mobiilikuponkien lunastamiseen vaikuttavat tekijät

5. Kännykkään saapuvista mainoksista luen

- en mitään
 25 prosenttia
 50 prosenttia
 75 prosenttia
 kaiken

6. Olen käyttänyt mobiilikupongeja

- Kyllä
 En

3. Aiempi kokemus

7. Minkälaisia mobiilikupongeja olet käyttänyt?

8. Viimeisin kokemukseni mobiilikupongeista on

- Todella huono Huono Jokseenkin huono Ei kumpikaan Jokseenkin hyvä Hyvä Todella hyvä

4. Asenteet

9. Mielestäni mobiilikuponkien käyttö on

	Täysin eri mieltä	Eri mieltä	Jokseenkin eri mieltä	Ei kumpikaan	Jokseenkin samaa mieltä	Samaa mieltä	Täysin samaa mieltä
Järkevää	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turhaa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kiinnostavaa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tyisää	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mobiilikuponkien lunastamiseen vaikuttavat tekijät

10. Asenteeni mobiilikuponkien hyötyihin

	Täysin eri mieltä	Eri mieltä	Jokseenkin eri mieltä	Ei kumpikaan	Jokseenkin samaa mieltä	Samaa mieltä	Täysin samaa mieltä
Mobiilikuponkien käyttö tekee minusta järkeväen kuluttajan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkien käyttö tekee ostoksilla käymisestäni helpompaa.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkien käyttö tekee ostoksilla käymisestäni miellyttävämpää.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkien avulla voi säästää rahaa.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkien taloudellinen hyöty on kuponkien käyttöön kulutetun aikani ja vaivani arvoista.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Asenteeni mobiilikuponkien viihdyttävyyteen ja vaikeuteen

	Täysin eri mieltä	Eri mieltä	Jokseenkin eri mieltä	Ei kumpikaan	Jokseenkin samaa mieltä	Samaa mieltä	Täysin samaa mieltä
Tekstiviestikuponkien saaminen on viihdyttävää.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multimedialavestin eli kuvakuponkien saaminen on viihdyttävää.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vastaanotan mobiilikuponkeja mieluummin tekstiviestin kuin kuvaviestin muodossa.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkien käyttäminen vie aikaa.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkeja on vaikea lunastaa.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Muut tekijät

12. Läheisteni vaikutus mobiilikuponkien käyttöön

	Täysin eri mieltä	Eri mieltä	Jokseenkin eri mieltä	Ei kumpikaan	Jokseenkin samaa mieltä	Samaa mieltä	Täysin samaa mieltä
Suurin osa minulle tärkeistä ihmisistä ajattelee, että minun kannattaa käyttää mobiilikuponkeja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Läheset ystäväni ajattelevat, että minun kannattaa käyttää mobiilikuponkeja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suurin osa perheestäni ajattelee, että minun kannattaa käyttää mobiilikuponkeja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vertaiseni (kuten työkaverit tai koulukaverit) ajattelevat, että minun kannattaa käyttää mobiilikuponkeja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mobiilikuponkien lunastamiseen vaikuttavat tekijät

13. Kontrollini mobiilikuponkeihin

	Täysin eri mieitä	Eri mieitä	Jokseenkin eri mieitä	Ei kumpikaan	Jokseenkin samaa mieitä	Samaa mieitä	Täysin samaa mieitä
Tunnen hallitsevani kännykkääni saapuvien mobiilikuponkien määrää.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tunnen hallitsevani, milloin mobiilikuponkeja saapuu kännykkääni.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tunnen hallitsevani, mitä ja miten henkilökohtaisia tietoja käytetään.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobiilikuponkien käyttö lisää roskapostini määrää kännykkässäni.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Lopuksi

14. Aikomukseni käyttää mobiilikuponkeja

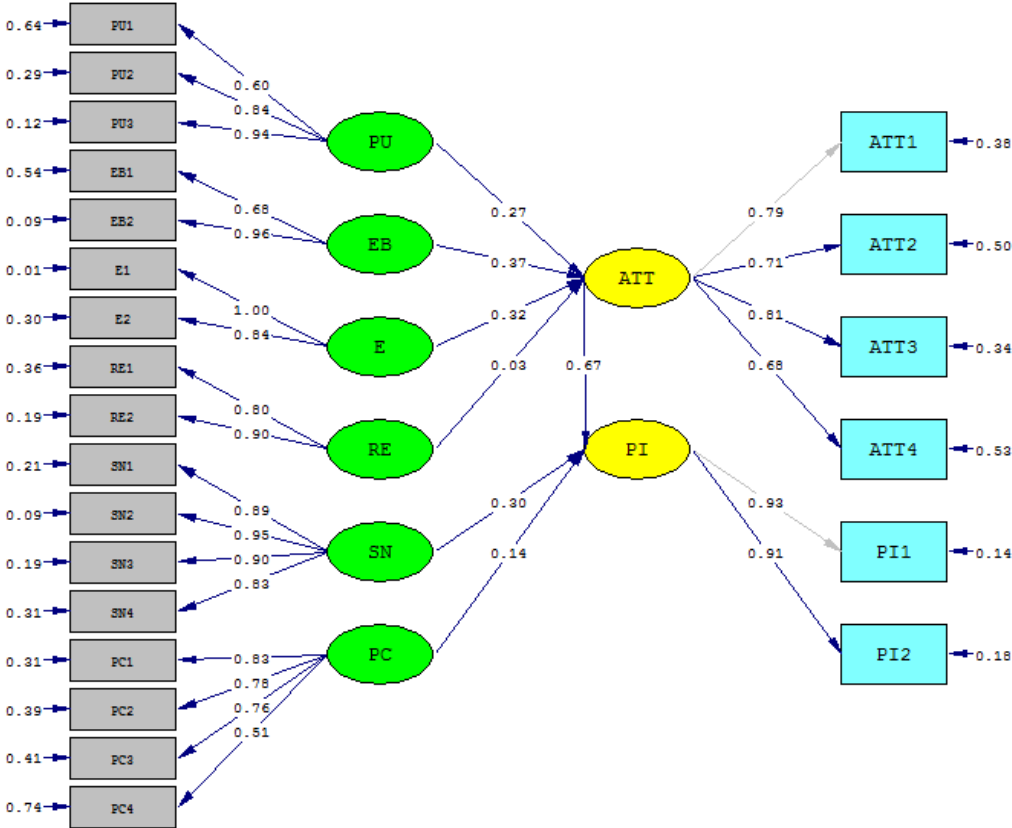
	Täysin epätodennäköistä	Epätodennäköistä	Jokseenkin epätodennäköistä	Ei kumpikaan	Jokseenkin todennäköistä	Todennäköistä	Täysin todennäköistä
Aion käyttää ostoksillani mobiilikuponkeja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aion käyttää mobiilikuponkeja, jos niitä minulle tarjotaan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Kiitos ajastasi.

Appendix 2. Fit indexes of research model

Degrees of Freedom = 208
Minimum Fit Function Chi-Square = 592.87 (P = 0.0)
Normal Theory Weighted Least Squares Chi-Square = 523.28 (P = 0.0)
Estimated Non-centrality Parameter (NCP) = 315.28
90 Percent Confidence Interval for NCP = (251.72 ; 386.52)
Minimum Fit Function Value = 3.14
Population Discrepancy Function Value (F0) = 1.67
90 Percent Confidence Interval for F0 = (1.33 ; 2.05)
Root Mean Square Error of Approximation (RMSEA) = 0.090
90 Percent Confidence Interval for RMSEA = (0.080 ; 0.099)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00
Expected Cross-Validation Index (ECVI) = 3.49
90 Percent Confidence Interval for ECVI = (3.15 ; 3.87)
ECVI for Saturated Model = 2.92
ECVI for Independence Model = 40.62
Chi-Square for Independence Model with 253 Degrees of Freedom = 7631.75
Independence AIC = 7677.75
Model AIC = 659.28
Saturated AIC = 552.00
Independence CAIC = 7775.43
Model CAIC = 948.08
Saturated CAIC = 1724.18
Normed Fit Index (NFI) = 0.92
Non-Normed Fit Index (NNFI) = 0.94
Parsimony Normed Fit Index (PNFI) = 0.76
Comparative Fit Index (CFI) = 0.95
Incremental Fit Index (IFI) = 0.95
Relative Fit Index (RFI) = 0.91
Critical N (CN) = 83.37
Root Mean Square Residual (RMR) = 0.29
Standardized RMR = 0.077
Goodness of Fit Index (GFI) = 0.81
Adjusted Goodness of Fit Index (AGFI) = 0.74
Parsimony Goodness of Fit Index (PGFI) = 0.61

Appendix 3. Standardized valuation of research model



Appendix 4. T-values of research model

