

Unraveling the Adoption of mCRM Smartphone Applications among Dutch Retailers

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Dit liever niet meer, toch..?



Chapter 1: Introduction	6-13
Mobile Marketing	8-10
Mobile Marketing and CRM	10-11
The Role of Social Media	11
mCRM	12
Research Question	12-13
Chapter 2: Theory	14-27
Rogers Diffusion of Innovation Theory	14-16
The UTAUT Model: Original Version	16-19
UTAUT2	19-21
Concepts and Hypotheses	21-23
New Concepts and Hypotheses	23-25
Chapter 3: Method	26-36
Identification of Innovators and Early Adopters	26-28
Respondents	28
Materials	29
Procedure	29-36
Chapter 4: Results	37-48
Reliability Analysis	37-40
Means and Standard Deviations for the Scales	40
Test Of Normality	41
Correlation Analysis of the Scales	41-42
KMO and Bartlett's Test of multicollinearity	42
Principal Component Analysis of Items	43-44
Principal Component Analysis of Scales	44-45
Testing Direct Effects	45
Testing Moderator Effects	46
Hierarchical Regression	46-48
Chapter 5: Discussion	49-54
Conclusions	49-50
Limitations and Recommendations for Future Research	50-52
Managerial implications	52-54
References	55-56
Appendices	57-
Existing Smartphone Applications for mCRM Purposes	57-59
Two Pager Description of Taqbox	60-61
Original Items from UTAUT	62
Original Items from UTAUT2	63
New Items	63
Questionnaire	64-69

Preface

Why is it so difficult to convince stakeholders in the market to use mobile marketing applications for their own purpose? What determines their will to adopt or to reject a new Smartphone application to manage their customer relationships? These questions lie at the heart of this research. Although, convincing them about the possible extra earning, increased turnover and the innovativeness of the application seem not to be enough for them to use it. Stating that its usage would and will stay free for them still did not change their mind. I had extensive contacts with various retailers in the Dutch market. My feeling was that they just know better than you do. They seem to be the ones who run their business and know the best what to do and what not. Certainly this is only partly true, in my view. I got the strange feeling during and before carrying out this research that it would not matter what you offer them. Would it be the best application they still would say, that they would not need it and already have similar strategies to approach the market and their customer base. Imagine Facebook would not be so extensively known and used by so many people: Do you think that presenting Facebook to them would have led them to adopt it as a marketing strategy? I doubt it. Rather the reason why retailers and almost every organization in developing countries which goes with the trend use Facebook is, because everybody is on Facebook. Not because it is effective or efficient, and by the way for customer relationship management it is neither efficient nor effective!

Whatever, with great turmoil I visited a lot of stores in Hengelo, Enschede and Glanerbug and tried to get an opinion on the application Taqbox. I am glad that in the end 65 retailers were willing to expend 10 minutes of their valuable time to provide me with their opinion on this Smartphone application. Although, in some cases I needed to visit stores more than four times, after I got the questionnaire back, it worked out. However, although, I stated that it concerns my Master thesis and not a selling story, still some refused. Others stated that they would have had no time and that they would be so busy in their store, so they would not have these ten minutes. In my point of view, such store managers or retailers are doomed to fail in the future, because they are trapped within their own business, having a tunnel vision what prevents them from developing a new view on things and by that go with the trend of their customers. I think, they will fail, because they are not capable to respond to the new generation, the Smartphone generation which is coming up very fast and which has other demands and wishes. These retailers will not be able to compete with internet shops. Slowly, less and less customers will visit their store unless they change the way they communicate and manage the relationship with them. This might not be the case for every store of course. However, in the case of the many stores I visited, which were even not willing to hear my story about an application which was developed in order to provide THEM with a tool, which has the opportunity to increase traffic in cities and in their stores it seems that the days of survival of these stores are counted. What do you think?

Thanks to Gert-Jan Ruiter for giving me the opportunity to do real market research. Thanks to Rik van Rekum for supervising me during this phase of my second study. Thanks to Fons Wijnhoven who provided decent feedback to improve my work and bring it up on paper as it is right now. Thanks also to my brother Felix Ney who helped me to type in all the data into SPSS. Thanks to all retailers which participated in this study. Hopefully reading about the application Taqbox triggered them to think about how to approach the future and...survive. And finally, thanks to my beloved wife Catharina Nickel which surrounds and strengthens me at any time.

Boris Ney

Abstract

Scientific research on the adoption of mobile marketing applications for mCRM purposes is scarce (Zengh, 2011). In order to develop a model, examining dynamics on the adoption of mobile marketing Smartphone applications of retailers in the Dutch market, first, the original UTAUT model (Venkatesh, Davis, Morris and Morris, 2003) was tested. Results indicate that the concepts performance expectancy, effort expectancy and social influence explain 64% variance ($p < .05$) in behavioral intention. Facilitating conditions seem not to fit the model, confirming earlier findings of Venkatesh et al. (2003). Secondly, a model was tested with newly crafted concepts never examined in scientific research: retailers perception, whether their customers (1) would enjoy using a mobile Smartphone application (hedonic motivation), (2) are perceiving the benefits of using this application (customer value) and (3) are already using similar electronic media (habit of customers). Results of a hierarchical regression analysis indicate that hedonic motivation and customer value explain 58% variance ($p < .01$) in behavioral intention. Habit of customers was unreliably measured and therefore not considered if it would fit the new model. Thirdly, the full model was tested, implying the necessity to include perceived customer hedonic motivation and perceived customer value in future studies. Moreover, practical implications concern the provision of profound information and actual performance measurements of such mCRM tools to stakeholders in the market.

Management Abstract

This research was carried out in order to clarify why retailers would intend to use mobile Smartphone applications for customer relationship management (CRM). Performance expectancy, effort expectancy and social influence were found to be important determinants on retailers' behavioral intention to adopt/reject mobile Smartphone applications, confirming earlier findings on the adoption of new technology (Venkatesh, Davis, Morris and Morris, 2003). These concepts explained 64% variance in behavioral intention. Moreover, behavioral intention is explained by retailers' perception whether their customers enjoy using the mobile applications and whether retailers perceive that their customers see the benefit of using it. Indications found in this study, point to the fact that facilitating conditions are of minor importance. Practical implications for the management of mobile Smartphone applications are to provide tactual information to stakeholders in the market. Moreover, retailers need to get convinced that their customers will like using the application and perceive the benefits of using it.

Introduction

Over the past two decades the landscape of marketing communication has changed tremendously (Constantinides, 2010; Leppäniemie, 2008). Technological developments, the increasing information flow and the changing lifestyle of consumers influence marketing strategies of companies (Varnali & Aysegül, 2010). Moreover, the way consumers communicate with each other, share and access information via mobile devices has changed, especially among the youth (Sultan, Rohm & Gao, 2009). Existing and constantly developing technologies enable companies to interactively stay in contact with their customers (Kaplan, 2012; Kaplan & Haenlein, 2010; Leppäniemie, 2008). Opposed to earlier marketing activities (mass communication), current technologies enable companies to directly stay in contact with their customers on a more personalized basis (Löffler, Kröckel & Hettich, 2011; Constantinides, 2010).

In order to attract, develop and retain durable customer relationships, companies are suggested to adopt new marketing activities (Löffler, Kröckel & Hettich, 2011; Leppäniemie, 2008). Marketing has become much more interactive and personal in nature. In this vein some companies adopt mobile marketing strategies. Reaching consumers on their personal mobile devices offers new and innovative ways to stay in contact with them and engage them personally. In the United States, 90 % of inhabitants own a mobile phone, of which one third owns a smart phone (Kaplan, 2012). In some countries (Italy, Germany, Finland, Japan and Hong Kong) penetration rates exceeding 100% were reported, meaning that inhabitants own more than one mobile phone (Kaplan, 2012). On a global scale the penetration rate of mobile phones is 70% with 5 billion mobile phone connections for roughly 7 billion people. Following the estimations of Pew Research Centre, by 2020 mobile devices will be the primary tool to access the internet for people around the world (Kaplan, 2012). It is therefore advisable for companies to find ways to promote their business via mobile marketing communication. Consumers increasingly use mobile internet in their daily lives. Mobile marketing becomes an important, beneficial and innovative way for companies to stay in contact with their existing customer base (Löffler, Kröckel & Hettich, 2011). Moreover, mobile marketing activities help to acquire new customers. However, as mobile marketing has many opportunities, at the same time it bears challenges. The fact, that it is a new way of communicating with consumers in a specific context, which is yet not fully understood, has the consequence that many companies, and especially small and medium enterprises (SMEs) fail or even reject to adopt such strategies (Zengh, 2011; Constantinides, 2010).

Although new technologies have been introduced to support mobile marketing of companies, the adoption of such technologies into existing marketing strategies of companies happens slowly. Many organizations try to engage the more demanding and price-sensitive consumers, which nowadays use much more avenues (blogs, social media, YouTube) during or before the purchase of a product. Organizations fail to embed decent marketing strategies to respond to this changing consumer behavior (French, LaBerge & Magill, 2011).

Smartphone applications for mobile customer relationship management are developed by many organizations, however, its development is expensive and their success depends on the adoption of such apps by the consumer. There seems to be no standard application which might get used by all companies, which is why the consumer is tired of the various offers s/he gets in particular stores. In this paper, a new Smartphone application which might suit all companies' needs to engage customers via mobile marketing strategies is presented. This research has been carried to examine what determines the adoption of mobile marketing Smartphone applications by retailers in order to develop and retain durable customer relationships.

The Smartphone application to which is referred is called Taqbox. It is introduced at the end of 2012 to the Dutch market. In a nutshell, the system works as follows: Companies receive (or can create) QR codes which are linked to a particular deal and printed on small cards which they can distribute among their customers. Moreover, companies can put these QR codes on their window, on their web site, Facebook site etc. Consumers scan these QR codes and will subsequently be led to the Taqbox interface where they have to register once to use the application. They have to provide their name, age, gender and an email address. If consumers have registered and scanned an existing QR code, they will get redirected to the site of the particular company within the Taqbox interface and are offered a deal the company has previously created. Subsequently, consumers can claim deals via their mobile devices. After the consumer has claimed a deal on his/her mobile device s/he needs to show this claim to the retailer, which then unlocks the deal in the shop. Thus, Taqbox makes use of the physical moment, customers are in the store. At the same time QR codes provided to the customers are the link between the offline and the online world.

It is inevitable to consider which other similar technologies are available on the market as these may influence the adoption of such technologies. Therefore, descriptions of similar applications are included in the Appendix 1.

Since some months some retailers have adopted such applications as mobile marketing tool in the Netherlands. Questions regarding what determine the adoption\rejection of such

applications by Dutch retailers are still apparent. This paper aims at finding answers to these questions.

The structure of the paper is as follows. First, the focus will lie on mobile marketing. The phenomenon will get discussed and clarified. An attempt is made to provide a new definition of what the phenomenon of mobile marketing entails. Then it is discussed for what main purposes mobile marketing is used. In this respect, the term mobile Customer Relationship Management (CRM) will get introduced, discussed and its relationship to mobile marketing will get clarified. The formulation of the research question follows. After that, Rogers Diffusion Theory of Innovation (Rogers, 1995) is presented, as it describes the process of how innovations and new ideas are adapted. A description of the Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh, Morris, Davis & Davis, 2003) and the modified UTAUT2, which was recently developed, tested and validated in a consumer context in China (Venkatesh, Thong & Xu, 2011) follows. Parts of both models will be adapted in order to examine which concepts determine behavioral intention of Dutch retailers to adopt new mobile marketing communication channels, i.e. Taqbox. Based on recently developed theory (Venkatesh, Thong & Xu, 2011) new concepts will be embedded in the model and accompanied relationships are reasoned, leading to new hypotheses and a model that will be tested, the Behavioral Intention for Adopting Mobile Marketing Applications (BIAMMA) model. Next, the Dutch retail sector is described, focusing on identifying innovators and early adopters, based on criteria of Rogers (1995) to identify a suitable and representative sample in this study. The method used to approach the research question is described, after which results are presented. Next, a discussion of the findings follows. Thereafter, limitations of this study are stated including suggestions for future research, closing the paper with managerial implications.

Mobile marketing

There seems to be no clear cut definition of the mobile marketing phenomenon (Zengh, 2011). Varnali and Aysegül (2010) state that, " [t]here is no agreement on an explicit definition of mobile marketing that captures the true nature of the phenomenon" (p.6). Mobile marketing communication refers to mobile advertising, mobile marketing, wireless advertising and wireless marketing (Leppäniemie, 2008). It is argued that the term mobile or wireless advertising seem to describe only part of the mobile communication phenomenon, as it does not cover the role of the mobile device in use. Mobile marketing seems to be more

than just advertising. A decent definition needs to include a description of the central phenomenon in mobile marketing communication, namely interactive communication between customer and retailer. In this respect, a useful definition is derived from Dickinger, Haghirian, Murphy and Scharl (2004). In their view mobile marketing entails, “ [u]sing interactive wireless media to provide customers with time and location sensitive, personalized information that promotes goods, services and ideas, thereby generating value for all stakeholders.” (Dickinger et al., 2004, p.2). Leppäniemie (2008) adds that mobile marketing should be used as an integrated content delivery what allows for using different media as communication channels. Thus, mobile media communication should never stand alone. What is important here is the integration of such channels within existing traditional marketing communication channels to promote the brand or particular products of the company (Leppäniemie, 2008).

Yet another more recent definition is provided by Kaplan (2012). He defines mobile marketing as “[...] any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device.” (Kaplan, 2012, p.2). According to this definition, mobile marketing needs to meet three conditions. The first condition refers to the character of the ubiquitous network in use. This network does not need to be a single network; rather it entails a combination of networks users devote in different contexts (work vs. home vs. mobile). Kaplan (2012) stresses, that the switch from one to another network is almost invisible. The second condition is that users have or could have constant access to this ubiquitous network. Obviously, this condition depends more on users than on the technology itself. However, with increasing smart phone penetration rates and broadly offered cheap online flat rates by mobile network operators, the amount of users which are constantly online will most likely increase in the future. The last condition concerns that the mobile device, through which users are connected to the network, should be personal, meaning that it is not shared with others (Kaplan, 2012).

Concerning the facts that Dickinger et al.’s definition (2004) lacks the important concept of the ubiquitous network and Kaplan’s definition (2012) misses that mobile marketing is initiated by the sender and that not only the receiver, but also the sender has constant access to the network, both definitions seem to be insufficient to clearly define the mobile marketing phenomenon. Therefore an attempt is made to define the concept of mobile marketing more clearly, leading to the following definition.

Mobile marketing is interactive location- and time-sensitive communication, initiated by a sender to a receiver's personal mobile device via an omnipresent network to which both parties may have constant access, aiming at promoting goods, services and ideas of the sender, in order to attract the receiver's interest and/or responses of the receiver to the sender's initiation.

Mobile marketing and CRM

Mobile marketing strategies have already been adopted, however, primarily by large firms in the past several years. Companies such as Coca Cola, Nike, Volvo and others have used mobile marketing in order to reach their existing customer base (Leppäniemie, 2008). SMS is the first and successfully proven mobile marketing communication channel (Dickinger et al., 2004). Simply sending an SMS has proven to be sufficient to influence customers in purchasing decisions (Leppäniemie, 2008), leading to the assumption that customers may feel more involved and excited about when getting an SMS as opposed to reading advertisements about particular companies placed in a newspaper or comparable traditional media. The information provided mobile is instantly available and much more personal than traditional advertising. Therefore, mobile marketing has the advantage to target customers in a particular context (Leppäniemie, 2008). However, this context is not fully understood, yet, making it difficult for companies to efficiently and effectively exploit mobile marketing activities.

Rather large firms adopt mobile marketing activities within their marketing strategies. The reason for that might be that other small companies often do not have the basic technology and/or budget to include mobile marketing campaigns within their existing marketing strategy (Löffler, Kröckel & Hettich, 2011). Thus, facilitating conditions, which were found to be influential on the actual usage behavior of new technologies (Venkatesh, Morris, Davis & Davis, 2003) might be an issue. Additionally, demographic characteristics of decision-takers in companies (gender, age and experience), which were also found to have a direct effect on the intention and actual usage behavior to use new technology (Venkatesh & Bala, 2008; Venkatesh et al., 2003) might also be of concern. Social influence might also be an issue on the adoption of new technology by companies (Venkatesh et al., 2003). In the past old-fashioned marketing activities which aimed at enhancing customer loyalty were introduced by some companies, using various types of cards or vouchers offered to their customers in order to give them a discount afterwards. The problem with such initiatives is that they normally do not provide much insight knowledge about customers, since data

collection is limited and the effectiveness of such initiatives questionable. Moreover, there is no direct connection between the company and the customer. Still, the company depends on the customer's response to the initiation and there is no way to trigger customers to visit their store again, opposed to sending an SMS. As a consequence, customers might lose or simply forget such loyalty cards (Löffler, Kröckel & Hettich, 2011).

The concept of Customer Relationship Management (CRM) lies at the heart of such customer loyalty programs and it is a key marketing strategy. CRM usually aims at collecting data about customers, which the company might use to hone their offerings and/or services to their customers' wishes and needs (Löffler, Kröckel & Hettich, 2011). However, as noted earlier, such loyalty programs described above miss this substantial mark.

Cheap mobile marketing applications are assumed to offer a new approach for companies to reach their customers and therewith it seems to be a new way to CRM (Zengh, 2011; Löffler, Kröckel & Hettich, 2011). Before coming to this new approach, it is referred to the role of social media in marketing.

The Role of Social Media

Social media applications, like Facebook or Twitter, are already used by all sorts of companies (Constantinides, 2010). The usage of online social media bears several opportunities for companies. The fact, that nowadays many mobile marketing tools, including (mobile) social network sites are for free, especially SMEs with no or little marketing budgets should try to promote their business via such channels (Constantinides, 2010). Simply putting offers or new collections on a Facebook site might be a suitable technique to stay in contact with existing and reach more customers. Data on the customers such as gender, age, preferences etc. can directly get tracked using such social media channels. However, confidentiality may be an issue at least for some customers. Therefore, many customers might not like to follow a company on their own private network, as privacy issues arise (Leppäniemi, 2008). Accordingly, such channels might not be the most fruitful for CRM and its effectiveness is questionable. The fact that social network sites (i.e. social media) can be accessed via mobile devices does not make social media a mobile marketing communication channel necessarily. However, the fact that almost all new mobile marketing applications allow companies and users to couple with social network sites makes it inevitable to consider this factor. As this paper concerns the adoption of mobile marketing strategies with the help of new technology in this area, the term mobile customer relationship management is introduced next.

mCRM

Mobile Customer Relationship Management (mCRM) activities comprise the use of mobile devices in order to broaden current CRM systems or to enhance the quality of already existing CRM services (Zengh, 2011). Thus, mCRM rather seems to add to the already existing CRM strategy the company exerts.

In order to utilize the full potential of mobile media communication, companies need to evaluate their existing business processes. No structured framework is available for designing mCRM solutions and there is very little research on the adoption of such mCRM applications (Zengh, 2011). As a consequence, companies are incapable or not willing to embed such mCRM strategies within their existing marketing strategy to respond to the changing lifestyle of customers (French, LaBerge & Magill, 2011). It is questionable to them, whether their customers are willing to use such applications, let alone whether they like using such systems and see the benefit of it. Moreover, it is also questionable whether *all* customers are already using electronic media during or before purchasing products and therefore it is difficult to predict whether customers might get reached with such initiatives. Such factors (demanded effort, hedonic motivation and habit of customers) are apparent and contribute to the willingness of companies to adopt such new technologies. Without decent guidance from research, which might unravel factors determining the adoption of such mCRM technologies, it seems a strikingly difficult endeavor convincing companies that using such technologies bear several advantages above traditional marketing strategies.

Research Question

Besides other technologies, Taqbox may be a viable application to adopt by companies, yet it seems particularly difficult in displaying its potential to companies in the Netherlands, since it is used on a small scale and increased revenue or turnover by companies using Taqbox could yet not be established. Showing the potential of mobile marketing technologies for CRM purposes to companies and convince them to adopt such initiatives for their own benefit seem to be complicated. Many factors play a role here, which are discussed in detail when describing the employed model in this study.

Taqbox collects all the data on the customers, making it possible for companies to target specific customer groups via their mobile devices. Therefore, Taqbox can be referred to as a mobile CRM (mCRM) service. The Taqbox application might be a decent tool for mCRM purposes. However, the performance of Taqbox and similar Smartphone applications and the

accompanied effort to exert by companies to use the system is not clear, what are reasons for companies to be cautious about adopting such new technologies (Venkatesh et al., 2003). Thus, the question, which the paper approaches, is why particular companies (i.e. retailers) are (not) willing to adopt mobile marketing technologies as a new mCRM strategy. More specifically the research question this paper reads as follows:

Which factors determine whether retailers are intending to adopt mobile marketing applications for mCRM purposes?

Taqbox will serve as an example for a mobile marketing application in this research. Descriptions of similar found to be the most popular applications around the globe in the context of mobile marketing are provided in Appendix 1. Now, it is referred to existing theories which are prominent in scientific literature on the adoption of new technologies. In this respect Rogers Diffusion of Innovation Theory is a decent begin. The theory will get used in order to identify a suitable sample of retailers which are about the first willing to adopt new mCRM applications.

Theory

Rogers Diffusion of Innovation Theory

With the introduction of the Diffusion of Innovation Theory (DIT) by Rogers (1962, 1995) several factors determining the decision to adopt a new technology (i.e. a new innovation) have been investigated and empirically tested (Van der Sijde, Jeurissen, Van Reekum and Rosendaal, in press). With the help of extensive empirical research Rogers (1962, 1995) identified relative advantage, compatibility, technical complexity, trialability and observability as the main factors shaping the decision process, considering to adopt a new technology.

According to the Diffusion Theory of Innovation (Rogers, 1962, 1995) potential adopters of new and innovative technologies can be categorized in five clusters, namely innovators, early adopters, early majority, late majority and laggards. Considering the distribution of each of the adopter types across the whole population, Rogers states, that about 2.5% are early innovators, 13.5% are early adopters, 34% are early majority, 34% are late majority and 16% are laggards. The diffusion of innovations is depicted in Figure 1.

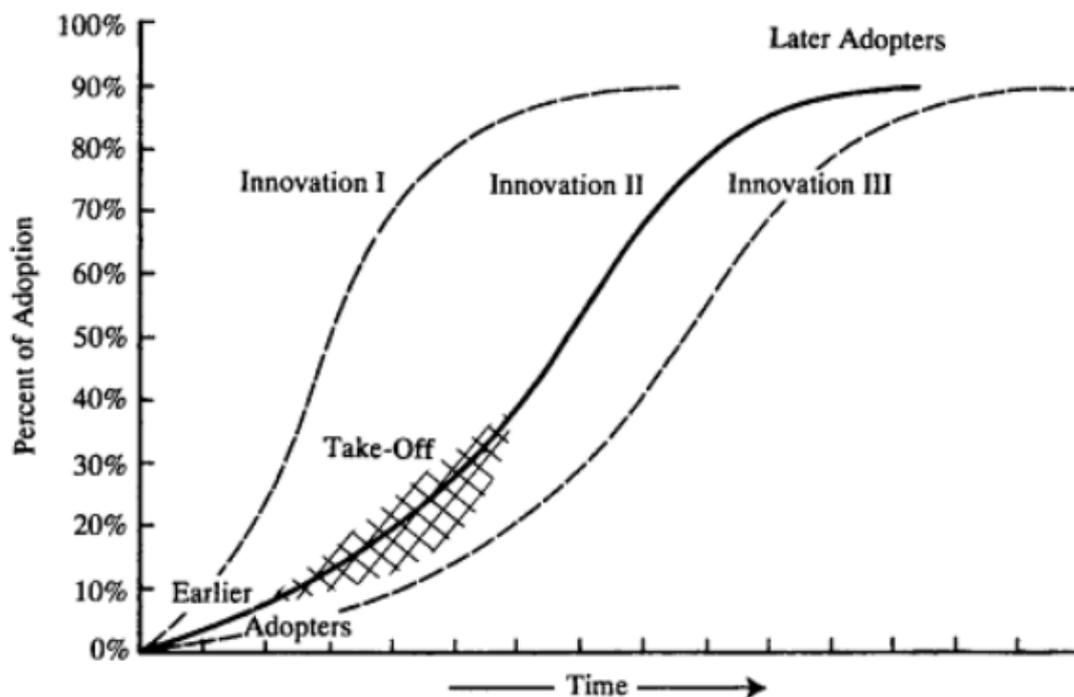


Figure 1. Diffusion of Innovations adopted from Rogers (1995)

The focus of this paper is on the adoption of new innovative mobile marketing applications. Increasing numbers of such technologies are being developed. The diffusion of such technologies is in its infancy and, as mentioned earlier, research on the adoption of mCRM applications is scarce (Zengh, 2011). Although the theory of Rogers focuses on consumers, in the case of mobile marketing applications, adopters of such technologies can be seen as consumers of the technology, which is why the theory is applicable. However, only partly as in the case of mobile marketing applications, where the retailer is the consumer of the technology, but at the same time, the customers of these retailers are also consumers of this technology, resulting in a more complex phenomenon than the ones studied by Rogers (1962) and others (Venkatesh, Thong and Xu, 2012; Venkatesh & Bala, 2008; Elbertsen & Van Reekum, 2008; Van der Sijde, Jeurissen, Van Reekum & Rosendaal, in press; Venkatesh et al., 2003). In all phenomena studied, an interrelationship between business and customer was absent. Later on, it will be elaborated on the difficulty, that customers of retailers are also consumers of the technology and with the help of existing theory, an approach on which concepts are important to explain this complex interrelationship and its implications are outlined.

When considering the diffusion process of new innovative mobile marketing technologies it is vital to focus on the behavioral intention of retailers first, before concerning customer's intention to use such applications. Retailers, which can be classified as innovators and early adopters of such technologies are the ones offering such mCRM systems to their customers in the first place. Therefore, the focus in this paper will lie on retailers, more specifically retailers which can get classified as innovators and/or early adopters and their behavioral intention to adopt such mCRM systems.

In order to identify a suitable sample, first both types of innovators and their characteristics are described. Later on, an attempt is made to identify retailers in the Netherlands, fitting the definition. Interested readers which want to know more about characteristics of the other types of consumers (early majority, late majority and laggards) should read Rogers, *Diffusion of Innovations*, 2010.

Innovators. Innovators are the consumers, which are the very first using innovations (Rogers, 1962, 1995). Rogers describes this type of consumers as “venturesome” entailing that these consumers are willing to take risks (an adventure) i.e. trying something out which has not been used earlier (Rogers, 1962, 1995). Rogers even describes them as being obsessed with trying out new ideas. Moreover, these consumers are most likely social leaders, are well

educated, popular and have big financial assets (Rogers, 1962, 1995). Moreover they enjoy strong connectedness to the research community and interact with other innovators.

Early Adopters. Opposed to innovators, early adopters are somewhat more discrete and deliberate in adopting particular innovations. They are the second type of consumers in the continuum of the diffusion process, which follows innovators. They have been characterized as being *opinion leaders* (Rogers, 1962, 1995). This means that these consumers concern the possible utilization of the innovation for lower-end consumers. By experimenting with the innovation, they display the potential benefits the adoption bears. A more commonly known word of describing this opinion leadership might be *trend setting*.

Without the exertion of opinion leadership by early adopters, further diffusion of the innovation might take a different unanticipated route. Early adopters enjoy a clear overview over their financial resources and high social status. Moreover, they are described as being more socially engaged than other types of adopters (Rogers, 1962, 1995). Lastly they consciously ponder of the adoption, which has the consequence that they are able to stay in the middle of communication about the innovation.

As an example, big companies such as Coca Cola, Volvo and other popular big companies might get classified as innovators and/or early adopters of new mobile marketing technologies. Now that innovators and early adopters of new innovations are described, the focus shifts to the Unified Theory of Acceptance and Use of Technology (UTAUT) model, which has come forth out of the Diffusion Theory of Innovation. It is widely accepted by the scientific community concerning the adoption of new technologies. Moreover, the concepts employed in this model and their relationships towards behavioral intention on the adoption of new technology fits the research question.

The UTAUT Model: Original Version

Based on the approaches of Rogers and others, Venkatesh, Morris, Davis and Davis (2003) developed the Unified Theory of Acceptance and Use of Technology (UTAUT) model. Out of eight technology acceptance models, they developed and cross validated the UTAUT model which has received major acceptance in scientific literature and has been used in various settings (Sundaravej, 2010). Moreover, it has also been extended to the consumer context (Venkatesh, Thong & Xu, 2011), resulting in UTAUT2 which is described in the next paragraph.

Venkatesh et al. (2003) extensively tested their model using different technologies in mandatory and voluntary settings in different organizations. The model is depicted in Figure 2. According to Venkatesh et al. (2003) performance expectancy, effort expectancy, social influence relate to behavioral intention to adopt a new technology, which in turn influence the actual use behavior. Performance expectancy concerns the belief of an individual whether the technology helps to boost performance. Effort expectancy relates to the perceived degree of effort needed in order to use the technology. Social influence is defined as the perception of an individual that others think s/he should use the technology. Facilitating conditions concern whether the individual believes that the existing technical and organizational infrastructure is suited to use the technology. Facilitating conditions is not mediated by behavioral intention, but directly influences actual usage behavior (Venkatesh et al. 2003).

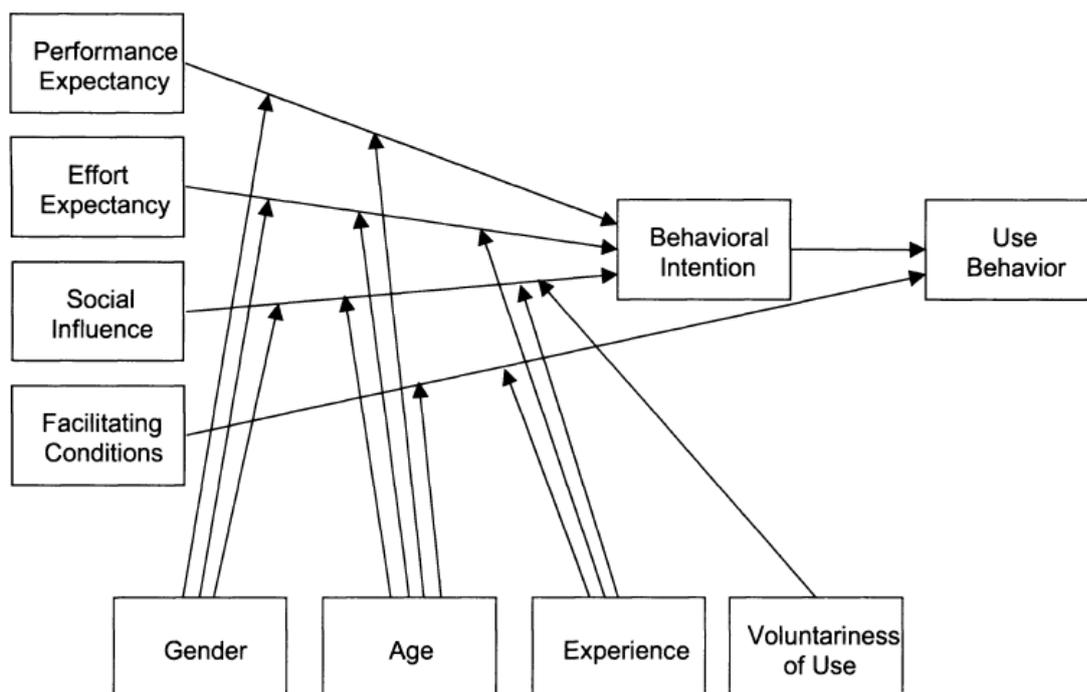


Figure 2. Original UTAUT model adopted from Venkatesh, Morris, Davis and Davis, 2003

Moderators in the model include the demographic characteristics gender, age, experience and voluntariness of use. As can be seen by the arrows in the model (Figure 2) gender and age moderate the relationship between performance expectancy, effort expectancy, social influence and behavioral intention. Moreover, age and experience

moderate the relationship between facilitating conditions and use behavior. Experience moderates the relationship between effort expectancy, social influence and behavioral intention. Voluntariness of use moderates the relationship between social influence and behavioral intention.

Since the model and accompanied concepts were empirically tested and confirmed (Venkatesh et al. 2003; Sundaravej, 2010), as well as extended (Venkatesh, Thong & Xu, 2011; Zhou, Lo & Wang, 2010; Min, Jin & Qu, 2008) it seems to be a decent approach using UTAUT and accompanied concepts to find answers to the question at hand. Therefore, the model will get adapted and improved in order to examine to what extent the concepts in the UTAUT model are applicable to Dutch retailers deciding upon whether to adopt mobile marketing applications, such as Taqbox. The construct voluntariness of use will get excluded in this research, because the research question concerns the behavioral intention of retailers, regardless of whether they are the ones to decide upon adoption or rejection of the application. It can be precluded that retailers' behavioral intention or willingness to adopt the application is influenced by voluntariness of use, since questions posed regarding the measurement of behavioral intention are purely fictive. Therefore the construct is irrelevant regarding the aim of this study.

Mobile marketing is a personal and individual phenomenon depending on the interaction between the customer and the company. Therefore, another important variable must relate to whether retailers perceive their customers to be willing to subscribe to and actually use the new technology. It simply concerns whether retailers believe that their customers will value and actually like using the new technology. Moreover, it also concerns the habit of customers, i.e. whether they are already using similar media, such as social network sites and/or email newsletter etc. before or during the purchase of a product. This concept is not present in the UTAUT model. However, it seems plausible that retailers will most likely get influenced in their decision making to adopt a new mobile marketing technology by their perception whether their customers value and like the newly offered service. Scientific research carried out among SMEs on the determinants of internet adoption as an e-commerce channel indicates, that customer pressure seems to be the most important factor in deciding whether to adopt mobile services or not (Mehrtens, Cragg & Mills, 2001). As a consequence, mobile applications will only be successful, if customers are willing to use it (Zengh, 2011). In this respect the UTAUT2 model was recently developed and empirically tested in Hong Kong, China (Venkatesh, Thong & Xu, 2012). The theory behind UTAUT2 is rooted in the consumer acceptance context of technology. More specifically it was developed

to understand which concepts seem to determine the intention and actual usage behavior of watching mobile videos, playing online games etc. of Chinese citizens. As above argumentation makes clear, these concepts are inevitable to consider in order to approach the research question. Therefore, the UTAUT2 and newly introduced concepts and relationships get emphasized next.

UTAUT2

Venkatesh, Thong and Xu (2012) summarize that the UTAUT has been extended and integrated. Originally, the UTAUT model served to describe employee acceptance and use of technology. However, according to the authors, the first type of UTAUT considers the adoption of technology in different new contexts, namely new technologies, new user population and various cultures. The second type concerns different extensions by adding new concepts to the model, in order to broaden the scope of theoretical relations in UTAUT. Finally, the third type considers integrating new predictor variables into the model. Although all extensions and integrations of the model have added to the scientific knowledge on new technology adoption, in their recently published paper, Venkatesh, Thong and Xu (2011) stress the need to include “salient factors that would apply to a consumer technology use context” (p. 2). By changing the context (from organizational to consumer) new relationships and the accompanied strength of the relationships got modified within the model, resulting in a new model, the UTAUT2.

The UTAUT2 describes acceptance and use of new technology adoption in a consumer context. The model is depicted in Figure 3. Besides the concepts included in the original UTAUT model, but then projected to consumers as opposed to employees in an organization, the UTAUT2 includes hedonic motivation, price value and habit of consumers as additional independent variables. Moreover, individual differences (age, gender and experience) were found to moderate the relationship of the effects between these consumer factors, behavioral intention and technology use. The fact that consumers can freely decide whether to adopt a new technology has the consequence that the moderating factor voluntariness of use is dropped in UTAUT2 (Venkatesh, Thong & Xu, 2011). All other concepts, namely performance expectancy, effort expectancy, social influence and facilitating conditions of which are present in the original UTAUT remain in UTAUT2, with the slight difference that facilitating conditions had a direct effect on behavioral intention and actual usage behavior.

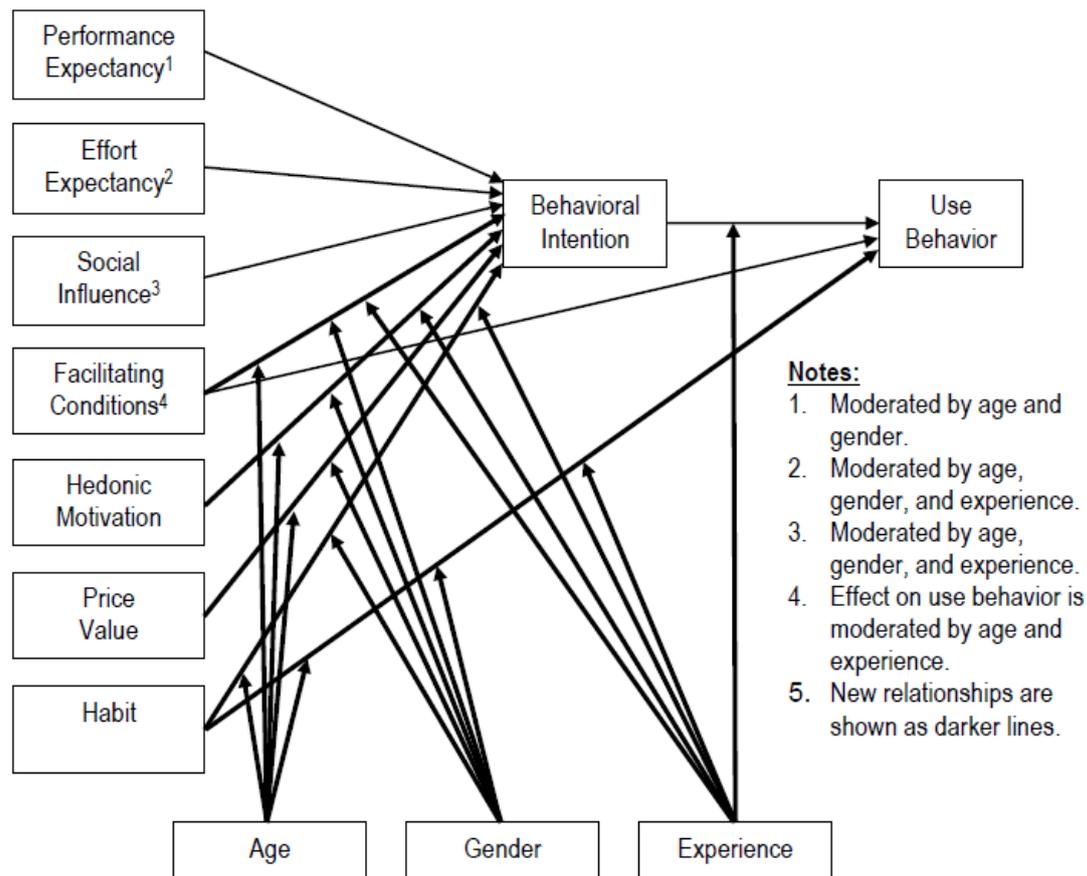


Figure 3. UTAUT2 adapted from Venkatesh, Thong and Xu, 2012

Concerning the research question in this paper, the focus does not lie on actual consumer's behavioral intention to use the mobile application, but rather considering perceptions of retailers whether the mobile application will likely get accepted by their customers. Conclusively, the factors operationalized in the UTAUT2, are not applicable to the case at hand vis-à-vis. In this paper hedonic motivation, price value (or rather expected benefit) and habit of customers, will get rated by the retailers themselves. It is supposed that retailers know their customers relatively well in terms of wishes, needs and habits. It is assumed, that they are able to rate whether (1) their customers would enjoy using the mobile application (hedonic motivation). Additionally, they will most likely know in how far (2) their customers have experience regarding new media utilization for purchasing products and/or services (habit of customers). Lastly, they will also be able to state whether (3) their customers perceive using the application will result in particular monetary benefits (customer value). As a consequence, the constructs described by Venkatesh, Thong and Xu (2011) will get adopted but modified, in the sense that they relate to retailers perception whether their

customers (1) will like using the application Taqbox (hedonic motivation), (2) are perceiving the benefits of using Taqbox (price/value, named customer value in this study) and (3) are already using similar electronic media (habit of customers), before or during the purchasing process.

Behavioral intention of *customers* will be left out, because the purpose of this research is to investigate whether *retailers* are intending to use Taqbox, the consumers of the application in the first place. Regrettably, actual use behavior of Taqbox is impossible to include, as a cross-sectional research design, rather than a longitudinal design is applied. Gender and age will also get included as moderators in the modified model. However, voluntariness of use will be excluded, according to argumentation outlined in the description on UTAUT. As examined in Venkatesh et al. (2003), attitude towards using the technology, self-efficacy and anxiety were found to have no direct effect on intention and consequently are not present in the original model (Venkatesh et al., 2003). Additionally, these concepts were also excluded in the modified UTAUT2 model (Venkatesh, Thong and Xu, 2012). Since retailers are fictively asked what they *would* think about using Taqbox, these concepts were assumed to have less priority and were thus left out in this research.

Concepts and Hypotheses

Direct Effects. Based on previous research (Venkatesh, Thong & Xu, 2011; Venkatesh et al. 2003), performance expectancy, effort expectancy and social influence are assumed to impact on behavioral intention. Consequently, the first hypotheses read as follows:

H1: Performance expectancy bears a positive direct significant influence on behavioral intention.

H2: Effort expectancy bears a positive direct significant effect on behavioral intention.

H3: Social Influence bears a positive direct significant effect on behavioral intention.

It is assumed that facilitating conditions has a direct effect on behavioral intention. Although, Venkatesh, et al. (2003) state, that facilitating conditions will not have a significant influence on behavioral intention, in this paper it is assumed that facilitating conditions will have an influence on whether retailers are intending to adopt Taqbox. As the context in which the adoption takes place and accompanied assumptions are quite different from the ones in earlier scientific research, it is reasonable to assume that if facilitating conditions is rated high by the retailers, that the intention to use Taqbox will also be high. Thus, if facilitating

conditions are supportive, retailers will most likely either intend to use Taqbox opposed to when facilitating conditions are weak. Therefore, the fourth hypothesis is formulated as follows:

H4: Facilitating conditions bear a positive direct significant effect on behavioral intention.

Moderating Effects. Moreover, the hypotheses concerning the moderators of gender and age in the original model between performance expectancy, effort expectancy and social influence are assumed to be applicable, as these independent variables are identically operationalized in this study. Note, that experience was excluded in the model, as comparable mCRM applications are barely used by retailers as stated in the Introduction. The absence of experience with comparable mCRM systems as Taqbox among Dutch retailers is therefore reasonable. Consequently, the following hypotheses are adopted from Venkatesh et al. (2003) in this research, without the factor experience.

H5: The influence of performance expectancy on behavioral intention will be moderated by gender, in the sense that the effect will be stronger for men.

H6: The influence of performance expectancy on behavioral intention will be moderated by age, in the sense that the effect will be stronger for younger persons.

H7: The influence of effort expectancy on behavioral intention will be moderated by gender, in the sense that the effect will be stronger for women.

H8: The influence of effort expectancy on behavioral intention will be moderated by age, in the sense that the effect will be stronger for younger persons.

H9: The influence of social influence on behavioral intention will be moderated by gender, in the sense that the effect will be stronger for women.

H10: The influence of social influence on behavioral intention will be moderated by age, in the sense that the effect will be stronger for older persons.

The moderating effects concerning facilitating conditions due to Venkatesh, Thong & Xu (2011) will get adopted as well. These read as follows:

H11: The influence of facilitating conditions on behavioral intention will get moderated by gender, in the sense that the effect will be stronger for women.

H12: The influence of facilitating conditions on behavioral intention will get moderated by age, in the sense that the effect will be stronger for older persons.

New Concepts and Hypotheses

In this section, direct effects of perceived customer hedonic motivation, perceived customer value and perceived habit of customers of retailers on behavioral intention are hypothesized, starting with customers hedonic motivation.

Direct Effect of Customers Hedonic Motivation. This concept considers whether retailers perceive whether their customers will enjoy using the app. If retailers perceive that customers would enjoy using the technology, they will be more willing to use it. Consequently the thirteenth hypothesis reads as follows:

H13: Retailers perception of customers hedonic motivation will bear a positive direct significant effect on behavioral intention.

Direct Effect of Customer Value. In UTAUT2 this concept was named price value. It relates to the monetary sacrifice by consumers to use a new technology (i.e. mobile internet), concerning whether consumers perceive that using mobile internet is reasonably priced (Venkatesh, Thong & Xu, 2011). As the monetary sacrifice for users of the Smartphone applications (i.e. the customers of the companies) is zero, the effect of perceived benefits of using Taqbox is assumed to be strong and therefore influential on the behavioral intention of retailers. In other words, if customers do not have to pay for the service (the monetary sacrifice equals zero) and the retailers perceive that actual usage of the technology (the application) bears particular benefits for their customers, behavioral intention will increase. Consequently, the next hypothesis is formulated as follows:

H14: Retailers perception of customer value will have a positive direct significant effect on behavioral intention.

Habit of Customers. The concept of habit seems superfluous, because the research question concerns a mobile marketing application, which is barely in use. However, it may be that customers already use similar technologies, such as receiving email newsletters and/or consult social network or web-sites of their favorite shops. Therefore it is assumed, that this sort of experience (habit in using new media channels before or during purchasing decisions) is influential on behavioral intention. Venkatesh, Thong and Xu (2011) describe habit as the key driver of actual use behavior together with behavioral intention. The concept bears direct effects on behavioral intention and actual use of the technology. As the scope in this paper is on retailers' characteristics rather than on the actual customer, the hypothesis resulting from above argumentation is as follows:

H15: Retailers perception of habit of customers will have a positive direct significant effect on behavioral intention.

Note, that the moderators in the UTAUT2 concerns characterization of consumers. In this paper, however, these moderators, namely age and gender concern characterizations of *retailers*.

It is assumed that the proposed new concepts are unrelated to the moderators gender and age. In Figure 4, the proposed Behavioral Intention for Adopting Mobile Marketing Applications (BIAMMA) model and accompanied relationships between the concepts are presented. The method employed in order to test this model is described next, after which the results are outlined.

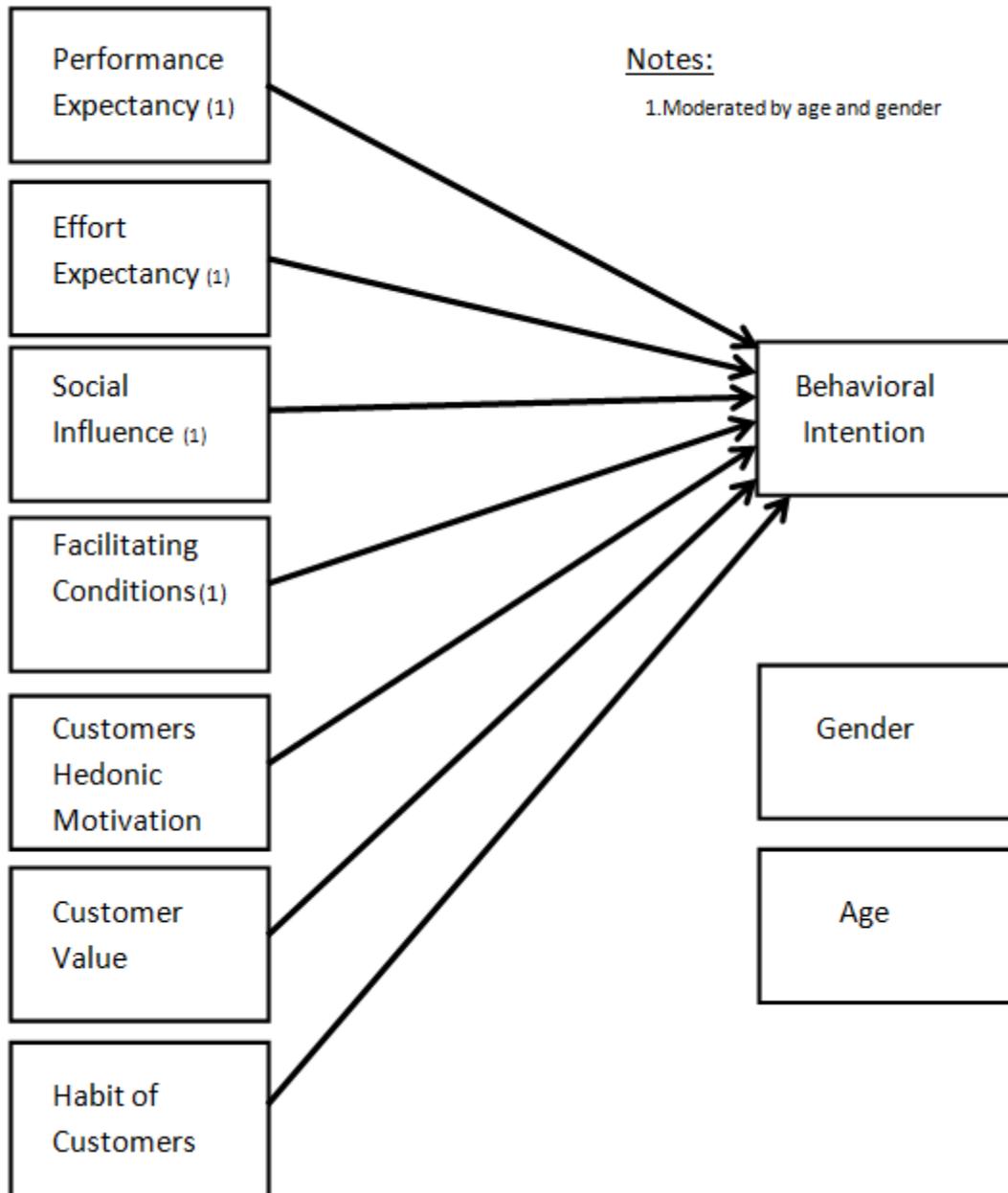


Figure 4. Behavioral Intention for Adopting Mobile Marketing Applications (BIAMMA)

Method

The focus will now shift to the landscape of the retail sector in the Netherlands. The goal of the description and analysis of the retail sector in the Netherlands is intended to identify innovators and early adopters of new media channels for marketing purposes according to the characteristics of the DIT (Rogers, 1962, 1995). Since the aim of this paper is to examine whether the concepts in the UTAUT model apply to the willingness of Dutch retailers to adopt mobile marketing applications (i.e. Taqbox), it seems plausible to consider retailers which have already adopted new media for CRM purposes. These groups of retailers will most likely be the innovators and early adopters of new mobile marketing applications.

Identification of Innovators and Early Adopters

The Dutch retail sector consists of more than 120.000 enterprises, run by approximately 820.000 entrepreneurs and employees (www.hbd.nl). Nearly 50 different branches are classified by the Hoofbedrijsschap Detailhandel (HBD) (www.hbd.nl).

The HBD is an organization established in 1956 in cooperation with entrepreneurs- and employee's organizations in the retail. The HBD strives for ensuring decent conditions for retailers to make business. The six core work fields of the HBD are (1) work, (2) fight against criminality, (3) education and training, (4) spatial planning, (5) innovation and payments and (6) sustainable entrepreneurship (www.hbd.nl). For more information on the HBD, visit www.hbd.nl.

Concerning the identification of innovators and early adopters of new media marketing channels, the HBD monitor ICT 2010, which is a periodical research initiated by the HBD and carried out with the help of the research institutes Stratus (<http://stratus.panteia.nl>) and Future Ways (<http://www.futureways.nl>), provides detailed insight trends on ICT use by different retailers. Among all branches of the retail sector in the Netherlands in the HBD Monitor ICT 2010 (to download here) 2502 retail organizations have been examined. The report considers the usage of new media for communicating with customers.

Opportunities of using new media for CRM purposes are immense and increasing significantly. Customers are using the internet (such as social media and/or websites of companies) to decide what to buy where. However, according to the HBD Monitor ICT 2010 the utilization of such new media channels by retailers is low, because, among other reasons, retailers seem not to have decent knowledge and/or experience on the possibilities to use such

channels. There seems to be only a small group of retailers which are aware and have knowledge on new media utilization and the opportunities it bears.

51% of all retailers in the study seem to be aware of the possibility to use e-mail as a commercial communication channel. Other new media channels considered in the report are Weblogs, Twitter and Social Media (Hyves and Facebook). These media channels are far less known and used by retailers than e-mail.

85% of retailers which use email do so for promotion, sales actions and/or discounts. The branches which make the most use of email are clothing, footwear and leather (32 %), entertainment (32%), consumer electronics (30%) and personal care (22%).

The advantages of using email are perceived differently. The three highest advantages as identified by ratings of retailers using email are sales increase (31% of retailers who already use email and 31% who intend to use email), more traffic in the shop (25% of retailers who already use email and 21% who intend to use email) and increasing customer loyalty (30% of retailers who already use email and 29% who intend to use email).

Among the four investigated new media channels for CRM purposes (SMS, Weblogs, Twitter and Social Media), 50% of retailers who are familiar with such channels, state that SMS would bear no advantages, while 42% state that Weblogs bear no advantages. Slightly more state that Twitter has no advantage and approximately 39% state the same for Social Media in general. Opposed to that, roughly 45% of retailers already using these channels state that SMS and Twitter have no *disadvantage* and 50% state the same for Weblogs, while 49% state the same for Social Media. Considering these perceptions by retailers, it seems difficult to convince them about the benefits such new media channels bear.

76% of retailers who do not ask digital information from customers (email, mobile phone numbers) are not considering to apply it in the future. 39% of this group state that new media communication channels would not suite their shop and 7% state, that asking customers to provide digital information would affect the trust relationship. Interestingly, 11% state that they even would not know what to do with such digital information, indicating scarce knowledge on how to use new media channels for commercial use. 11% state that their customers do not want to provide digital information.

Given the facts outlined above, it seems reasonable to focus on the branches where retailers are already experimenting with new media channels for CRM purposes. Innovators and early adopters, as identified by Rogers (1962, 1995) and projected to the Dutch retail market are assumed to be retailers in these branches, namely:

1. clothing, footwear, leather
2. entertainment
3. consumer electronics
4. personal care

Respondents

Table 1 summarizes demographic characteristics of the sample in this study.

Respondents in this study were 65 retailers with a mean age of 37.9 (SD = 10.9). Of these retailers 31 were female. In total 80 stores were visited by the researcher, however 15 stores did not participate in the study, of which seven refused to fill in the questionnaire and the remainder forgot to fill in the questionnaire at the time of the investigation, leading to a response rate of 82%. 23 stores were located in Enschede, 18 in Hengelo and 20 in Glanerbrug, the Netherlands.

21 of the stores were clothing, footwear or leather stores, nine were in the entertainment branch, six were in the personal care branch and one store was in the consumer electronics branch. The remainder made no details about their branches.

Table 1

Demographic Characteristics of Respondents and Location of Stores

	Frequency
1. Gender	
Male	33
Female	31
Missing	1
Total	65
2. Location	
Enschede	23
Hengelo	18
Glanerbrug	20
Missing	4
Total	65

Materials

Description of Taqbox. The description was two pages long and included written text and pictures to describe the main idea, features and functionality of Taqbox.

Questionnaire. The questionnaire used in this study contained 32 items, measuring eight different concepts namely performance expectancy (4 items), effort expectancy (5 items), social influence (4 items), facilitating conditions (4 items), behavioral intention to use Taqbox (4 items), perceived customer's hedonic motivation (4 items), perceived customer value (4 items) and perceived habit of customers (4 items). A five point likert scale was used ranging from 1 (totally disagree), 2 (partly disagree), 3 (neutral), 4 (partly agree) to 5 (totally agree). Respondents were pleased to provide their age, gender and branch. The questionnaire ended with thanking the respondents for participating and that the results would be reported in the following three month.

Respondents were free to provide an email address, if they would like to receive a copy of the final paper.

Procedure

Development of the Description of Taqbox. As respondents in this study did not know about Taqbox, a two page description of the application was developed with the help of an associate and an experienced researcher. The description can be found in Appendix 2.

On the top of the first page, the researcher introduced himself, stating his name, that he would come from the University of Twente and that he was engaged in doing his master thesis about mobile marketing. In the next line, it was stated that mobile marketing would surely be the future for retailers, but that mobile marketing strategies are slowly adopted. Then it was stated that the researcher would examine the reasons why retailers would or would not be willing to use mobile marketing applications for marketing aims. Next, retailers were thanked to participate in the study.

On the same page three images were depicted. The first image got the heading *mobile internet daily usage*. The image shows two hands, typing on a Smartphone in an undefined store. Next to the image, it was stated in three bullets, that retailers (1) want to understand the behavior of customers, (2) want to build up and maintain customer relationships and (3) want to generate more traffic in their store and in the inner city. Beneath these bullets a question was formulated in the first person singular to attract attention of retailers. The question was: *But how can I reach my customers to build up a relationship?* Next to this question, a small

face was depicted with a thought bubble above. In the thought bubble, it stood *Groupon? : 75% margin, Google? : \$2 per click, Advertising? : \$2500, Social media is rather for my friends and Email is private*. Beneath these rows a question mark was depicted.

Next, the sentence *While people I want to reach pass my store every day* followed in bold. Beneath this sentence three points were formulated, namely: 1) personal contact, 2) customers are online, 3) customers are most receptive for my message. Left to this text the same face was depicted again with a thought bubble above stating the question: *Why do I not use this valuable physical moment?*

Hereafter, another picture was added with the heading *The solution*. It showed on the left side a face with a winking eye (the retailer) with one hand on a Smartphone, showing a QR-code on the screen. On the right side of the Smartphone a smiling face was depicted (the customer) also touching the Smartphone, by that indicating that the Smartphone is the connection between the retailer and the customer. On the upper left side of the picture the text *Connect with your customers when they visit your shop*. On the bottom right below the picture an arrow pointed to the text *and reward customers to come back to your shop more often*. The aim of the first page was to attract attention of retailers and to engage them to think about what can be done to attract and maintain customer relationships in a new way.

The next page started with a short introduction about Taqbox, stating that Taqbox would be a mobile marketing application which utilizes the physical moment that customers are in the store to make a connection between the retailer, the retailer's store and the customer. Note that there was direct speech "talking" to the retailer in order to trigger attention.

After this introduction, a picture was shown on the right side, showing a retailer in a store handing over a card with a QR-code on it to a customer. On the retailers desk, a dashboard of Taqbox holding QR-code cards in the middle with the text *Follow us for: Rewards, Last minutes, Updates etc* was shown. From that dashboard a small arrow pointed to the right side of the picture, a Smartphone logged on to Taqbox, showing bubbles on top with words like *Polls, Rewards, Announce, Treats etc*. On the left side of the picture a small text was shown with the bold heading *Customers scan to follow your store*. Beneath the heading it was stated in second person singular (to announce the retailer!) that in the moment that customers are in the store, retailers could give a small card with a QR-code to the particular customer, which holds a surprise for the customer. It was further stated that herewith the first connection could be made.

Next, a picture was shown of a store with a QR-code durably fixed on its window. From that QR-code an arrow pointed to a bubble in which a customer was shown looking on a

Smartphone while laughing. Beneath the bubble a Smartphone was shown logged on to Taqbox. Above this Smartphone other bubbles occurred, holding the words *Be the first*, *New collection*, *Reward* etc. On the right side of the picture a text was printed, with the heading in bold *Direct contact with your customers*. Under the heading the following text was shown: *Once the connection is made...you are able to directly contact your customers and surprise them to come back more often!*

The next picture showed how you could create a campaign within Taqbox, showing an example of an Espresso bar. On the left side of the picture a text with the heading *Reach your customers personally* was shown. It stated that you could see on the picture how to create a campaign and send it to your customers. Further it was stated that it could be a deal, a discount, an action or an update and that the choice would be up to the retailer. It stated moreover, that the retailer could easily select a campaign and could send it to all his/her customers within five minutes.

The last picture of the description shows a Smartphone with the text on the screen *+5% discount* and below the icons of Facebook and Twitter. The text next to the picture with the heading stated: *Make use of mouth-to-mouth advertising*. Further it stated, that within Taqbox there would be the possibility to offer extra discount to customers, if they would make their campaign public on their private network on Facebook or Twitter. Further it stated that if the customer would not be willing to do that, s/he could easily skip the popup. Next to the picture, small icons indicating people were shown with lines between them. This was done to show that using this functionality, might enable retailers to reach more customers with the help of their existing customers.

Development of the Questionnaire. The researcher asked Venkatesh for permission in advance via mail to use the existing items of the original questionnaire published in Venkatesh et al. (2003) which can be found in Appendix 3. Only parts of the items were used, namely the items of performance expectancy, effort expectancy, social influence, facilitating conditions and behavioral intention to use the system. The concepts attitude towards using the technology, self-efficacy, and anxiety were left out (see previous section for justification).

Further, items of the three constructs incorporated in the UTAUT2 model published in Venkatesh, Thing and Xu (2011) were adapted, namely hedonic motivation, price value and habit.

The items belonging to the concepts of the original questionnaire were formulated for researching *consumer* acceptance of technology, i.e. whether consumers in Hong Kong,

China were willing to use mobile internet. As the consumer perceptions of Taqbox were left out in this study, these items did not fit the research at hand vis-a-vis. Therefore, the items were reformulated in the sense, that they asked retailers to rate in how far their customers (1) would like to use Taqbox (customer's hedonic motivation), (2) would perceive the benefit of using Taqbox (customer value) and (3) are already using similar electronic media (habit of customers). Of course it would have been much better to take consumers *own* rating into account, however concerning the fact that retailers do know their customer base well, makes this issue of minor importance. The original items used for the concepts hedonic motivation, price value and habit published in Venkatesh, Thong and Xu (2011) and the reformulated items are provided in Appendix 4 and Appendix 5, respectively.

One item was added to the original questionnaire in the proposed UTAUT2 model, namely the item *I think, that my customers would find the system (Taqbox) surprising*. After deciding upon which items to use, an associate and an experienced researcher collaborated with the researcher in order to translate the newly and uniquely crafted questionnaire into the Dutch language. This questionnaire can be found in Appendix 6.

Dissemination of Description of Taqbox and Questionnaires. The researcher went to various stores in the three cities in the Netherlands and disseminated the material. This was done in weeks 22 through 24 in 2013 in Hengelo, Enschede and Glanerbrug. The two page description of Taqbox was fastened to the questionnaire. So the starting point for retailers was to read through the description, before filling out the questionnaire.

When entering a store, the researcher introduced himself to the particular retailer, stating that he is doing his master thesis at the University of Twente and that it concerns the adoption of mobile marketing applications by retailers in the Netherlands. After that, he kindly asked whether the retailer would be willing to fill out a questionnaire. Further, he stated that participation is voluntary and that the results were treated strictly confidential. If retailers did not refuse, he stated that he would come along at another time to collect the questionnaire. Some of the retailers did refuse. However the vast majority participated in the study.

Overview of Steps in Data Analysis. The questionnaires were analyzed using IBM SPSS 20. Missing values were excluded during data analysis. The steps were as followed. First, reliability analyses were carried out with all scales. Cronbach's Alpha served as an internal reliability indicator. Due to a low Cronbach's Alpha, the scale habit of customers was dropped. Means and standard deviations were calculated for the remaining concepts only,

which served as an input to the test for normality of the scores. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity were performed. The former measure is used to control for multicollinearity, while the latter tests homogeneity of variance (homoscedasticity) (Field, 2009). Bivariate correlational analyses between the concepts followed. After that, two principal component analyses were carried out for (1) all items belonging to performance expectancy, effort expectancy, social influence, facilitating conditions, customer's hedonic motivation, customer value and behavioral intention and (2) for the mean scores of the concepts. The first principal component analysis was performed in order to examine what the items most likely measure and to examine discriminant validity of the items. The second analysis was performed to examine how the constructs behave to one another. More specifically, with the help of this analysis it was explored whether the concepts measure some higher order construct, indicated by high loadings on the iterations/components.

ANOVAS were carried out for gender and age as independents on the mean scores of all constructs. Results indicated that the variances on the mean scores of the scale were independent of gender and age, resulting in the fact that moderator effects were not included in the model. The model in Figure 4 was therefore adjusted, excluding the two suggested moderators, leading to a new model depicted in Figure 5.

As gender and age were of no influence on the scores, analyses concerning moderator effects (H5-H12) were not carried out.

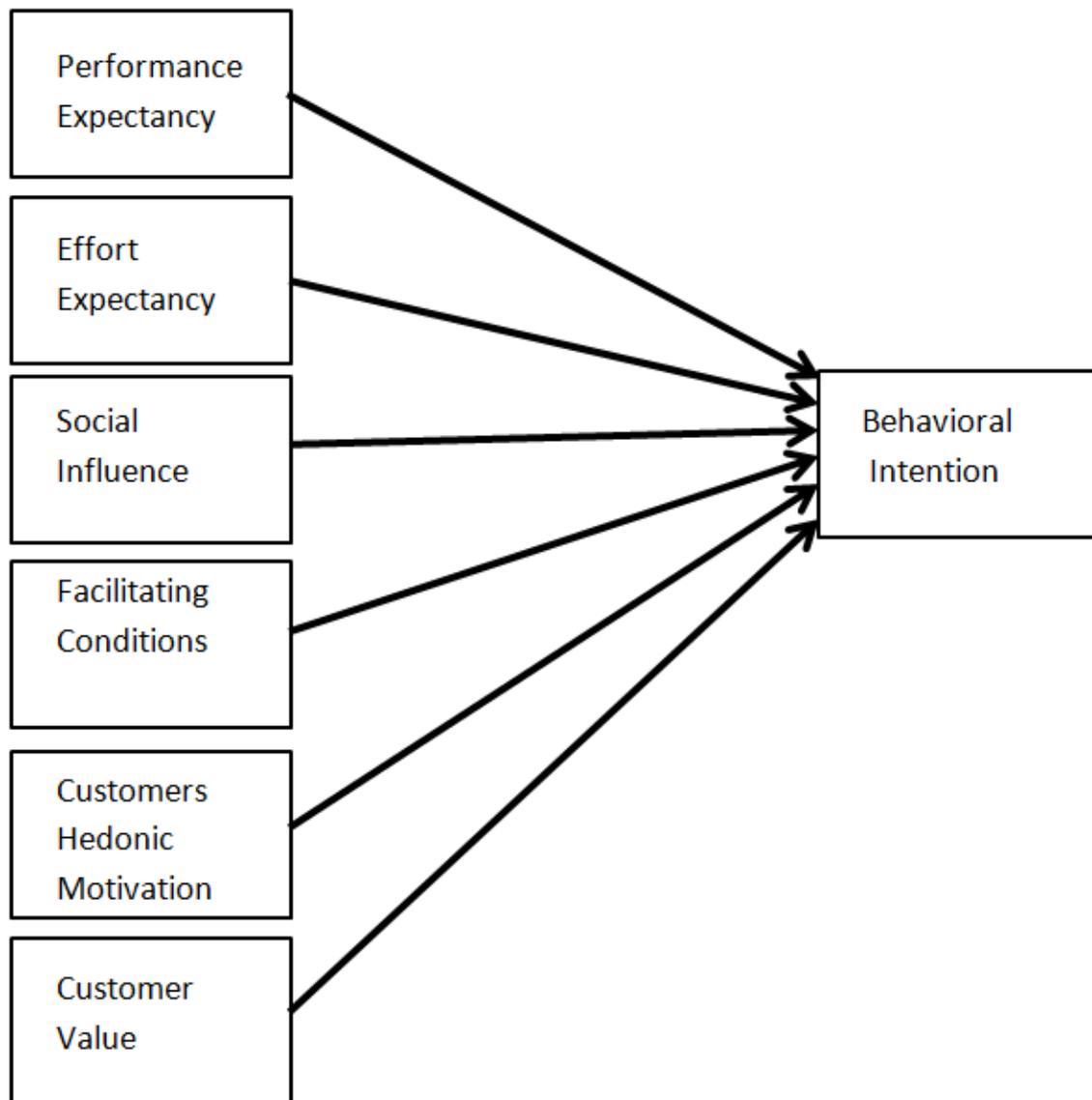


Figure 5. Adjusted Behavioral Intention for Adoption of Mobile Marketing Applications (BIAMMA)

Three hierarchical regression analyses were carried to test three different models. First, a hierarchical regression was performed with performance expectancy, effort expectancy and social influence as predictors for the variance in behavioral intention in order to replicate the findings found in Venkatesh (2003). As facilitating conditions was found to be an insignificant determinant of behavioral intention in Venkatesh (2003), however found to be a significant predictor in a consumer acceptance study (Venkatesh, Thong & Xu, 2012) this concept was added. This was done to test whether the beta coefficients and its significance

would change after adding facilitating conditions to the model.

Secondly, a hierarchical regression analysis was carried out with customer's hedonic motivation. Thereafter, customer value was added to the model. This analysis was performed in order to test whether these concepts, never employed in earlier studies which have adapted UTAUT as a scientific framework, are influential on behavioral intention of retailers to adopt Taqbox.

Thirdly, the full model was tested using hierarchical regression analysis. The analysis comprised of four steps. First, performance expectancy, effort expectancy and social influence were included, thereafter facilitating conditions was added. Next, customer's hedonic motivation was included. In the last step, customer value was entered into the model. R square and R square change of the three models were considered. All steps in data analysis are described in detail next.

Reliability Analysis. Cronbach's Alpha served as an indicator for the internal consistency of all concepts in this study. Corrected item-scale correlations and the change in the value of Cronbach's Alpha if an item would get deleted from the scale were considered. The cut-off score whether to exclude an item of a scale were corrected item correlations $\geq .4$. The item "*Taqbox is not compatible with other systems I use*" belonging to the concept of facilitating conditions was rejected for two reasons. On the one hand it did not fulfill the corrected-item correlation criteria. On the other hand rejection of this item substantially increased the internal consistency of the concept facilitating conditions. Reliability analyses were carried out for the eight concepts and Cronbach's alpha served as a reliability indicator. The cut-off score for including a scale for further analysis was $\alpha \geq .7$.

Test of Normality. In order to test whether the scores on the different concepts are distributed normally, the Kolmogorov-Smirnov test was performed, as this test is widely accepted in order to test for normality (Field, 2009). Results indicated normal distribution of all mean scores on the scales ($p < .05$), except for effort expectancy ($p = .2$).

Principal Component Analysis. The principal component analysis was carried out, as results of this method indicate discriminant validity of items. Moreover, it is a strong psychometrical procedure. Generally, there are two methods how underlying factors of concepts can be examined. One is the inferential method, where it is assumed that the sample resembles the total population. In case of the examined sample this can be assumed to be true as it is a

selected sample based on the branches were the particular retailer is working, thus resembling the potential population of innovators and early adopters of mobile marketing applications. Therefore the inferential method was chosen (Field, 2009). Clearly, generalization about the results is limited; however, the underlying assumptions fit the collected data in this research, about which cautious inferences to the total population can be made. As a consequence, it was decided to use the principal component analysis, opposed to general factor analysis, which is by the way far more complex and, opposed to principal component analysis, shares no similarity to discriminant validity analysis, which is an added advantage when using principal component analysis (Field, 2009).

Moreover, in exploratory factor analysis different forms of rotations can be used upon which the variables can converge, namely three methods of orthogonal rotation (varimax, quartimax and equamax) and two methods of oblique rotation (direct oblique and promax). Although some researchers state that orthogonal rotations should never be used (Field, 2009), because the underlying theory behind this method states that the factors upon which the different variables converge are unrelated (do not correlate), what is clearly not the case in social sciences where humans are included. Andy Field poses the following question to make this clear: *“Can you think of any psychological construct that is not in any way correlated with some other psychological construct?”* (Field, p. 644, 3rd paragraph). However, varimax rotation allows for simpler interpretation, as this method strives to load smaller amounts of variables onto one factor. Moreover, in the case of the research question at hand one might assume that all independent variables in this study, are correlated, but nevertheless assumed to be independent concepts in this study. Therefore using varimax rotation seems appropriate (Field, 2009).

Regression Models. Three hierarchical regression analyses have been performed with behavioral intention as independent variable. Explained variance (R square) and R square change were considered in all regression models.

The first analysis comprised of two steps. The influence of performance expectancy, effort expectancy and social influence were considered, after which facilitating condition was added. The second analysis included two steps as well. The influence of customer's hedonic motivation was considered, after which customer value was added. The third analysis tested the full model in four steps. First, performance expectancy, effort expectancy and social influence were included in the model, after which facilitating conditions was added. Then, customer's hedonic motivation was included. The last step was to add customer value.

Results

Reliability Analysis

Performance Expectancy. This scale consisted of 4 items ($\alpha = .75$). What can be seen in Table 2 is that all items correlated higher than .5 with the scale except for the item 2 (*Using Taqbox would have the consequence that I could perform tasks faster*). Cronbach's Alpha would not increase when removing any item from the scale.

Table 2

Performance Expectancy (4 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Ik zou Taqbox zeer bruikbaar vinden in mijn werk.	.68	.60
2. Het gebruik van Taqbox zou tot gevolg hebben dat ik taken sneller kan afhandelen.	.48	.73
3. Het gebruik van Taqbox zou mijn productiviteit verhogen.	.51	.70
4. Als ik Taqbox gebruik, zou dat mijn kans tot omzetverhoging vergroten.	.51	.70

Effort Expectancy. This scale consisted of 5 items ($\alpha = .92$). What can be seen in Table 3 is that all items correlated higher than .7 with the scale. Cronbach's Alpha would not increase when removing any item from the scale.

Table 3

Effort Expectancy (5 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Het werken met Taqbox zou duidelijk zijn voor mij.	.72	.92
2. Het zou makkelijk zijn om Taqbox te leren beheersen.	.78	.90
3. Ik zou Taqbox makkelijk in gebruik vinden (gebruikersgemak).	.89	.88
4. Taqbox is handig in gebruik (functionaliteit).	.84	.89
5. Het leren bedienen van Taqbox zou ik makkelijk vinden (eenvoud/simpelheid).	.75	.91

Social Influence. This scale consisted of 3 items ($\alpha = .78$). What can be seen in Table 4 is that all items correlated higher than .5 with the scale. Cronbach's Alpha would increase up to .81 when removing item 1 (*People in my direct vicinity (such as family, colleagues, friends, etc.) think that I should make use of Taqbox*). However, this item was not removed from the scale, as the increase in the value of Cronbach's Alpha is not substantial and additionally, the validity of this scale would suffer enormously.

Table 4

Social Influence (3 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Mensen uit mijn directe omgeving (zoals families, collega's, vrienden, etc.) denken dat ik gebruik zou moeten maken van Taqbox.	.51	.81
2. Mensen met wie ik een zakelijke relatie heb (bijv. franchisegever, inkoopcombinaties, etc.) vinden dat ik Taqbox zou moeten gebruiken (geldt niet voor klanten).	.70	.60
3. Mensen in mijn bedrijf (bijv. werknemers, management) vinden dat ik gebruik zou moeten maken van Taqbox.	.66	.66

Facilitating Conditions. This scale consisted of 4 items ($\alpha = .53$). What can be seen in Table 5 is that all items correlated higher than or equal to .4 with the scale except for item 3 (*Taqbox is not compatible with other systems I use*). Cronbach's Alpha would increase up to .74 when removing this item from the scale. The item was removed from the scale leading to a total set of three items ($\alpha = .74$), as the increase in the value for Cronbach's Alpha was substantial.

Table 5

Facilitating Conditions (4 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Ik zou alle middelen hebben om Taqbox te gebruiken.	.48	.31
2. Ik heb de benodigde kennis om Taqbox te gebruiken.	.60	.19
3. Taqbox is niet compatibel met andere systemen die ik gebruik.	-.10	.74
4. Ik heb toegang tot personen die mij assistentie kunnen geven, als er complicaties met Taqbox zouden zijn.	.40	.40

Customer's Hedonic Motivation. This scale consisted of 4 items ($\alpha = .92$). What can be seen in Table 6 is that all items correlated higher than .7 with the scale. Cronbach's Alpha would not increase when removing any item from the scale.

Table 6

Customer's Hedonic Motivation (4 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Het gebruik van Taqbox zouden mijn klanten aantrekkelijk vinden.	.83	.89
2. Het gebruik van Taqbox zouden mijn klanten plezierig vinden.	.85	.89
3. Het gebruik van Taqbox zouden mijn klanten gemakkelijk vinden.	.81	.90
4. Ik denk dat mijn klanten het systeem verrassend zullen vinden.	.78	.91

Customer Value. This scale consisted of 4 items ($\alpha = .83$). What can be seen in Table 7 is that all items correlated higher than .5 with the scale. Cronbach's Alpha would not increase when removing any item from the scale.

Table 7

Customer Value (5 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Mijn klanten zouden de voordelen van Taqbox beseffen.	.77	.73
2. Mijn klanten zouden er direct baat bij hebben Taqbox te gebruiken.	.66	.78
3. Mijn klanten zouden de moeite doen om Taqbox op hun Smartphone te installeren.	.65	.78
4. Voor mijn klanten is het belangrijk te weten dat Taqbox voor hen gratis is.	.55	.83

Habit of Customers. This scale consisted of 5 items ($\alpha = .59$). What can be seen in Table 8 is that all items correlated higher than .3 with the scale. Cronbach's Alpha would not increase when removing any item from the scale. This scale was not included in further analysis, due to the low Cronbach's Alpha.

Table 8

Habit of Customers (5 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Mijn klanten raadplegen elektronische media voor of tijdens de aankoop.	.32	.57
2. Mijn klanten checken regelmatig sociaal media sites van bedrijven.	.39	.53
3. Wij hebben al veel klanten die onze nieuwsletter per email ontvangen.	.34	.57
4. Regelmatig vragen klanten naar bepaalde acties die ze op mijn website tegen kwamen.	.51	.40

Behavioral Intention. This scale consisted of 4 items ($\alpha = .85$). What can be seen in Table 9 is that all items correlated higher than .5 with the scale. Cronbach's Alpha would increase up to .87 when removing item 4 (*I am interested in Taqbox, but would like to have more information on it*). However, this item was not removed from the scale, as the increase in the value of Cronbach's Alpha is not substantial and additionally, the validity of this scale would suffer enormously.

Table 9

Behavioral Intention (4 items)

	Corrected item-scale correlations	Cronbach's Alpha if item deleted
1. Ik zou Taqbox nog dit jaar willen gebruiken.	.72	.79
2. Ik voorzie dat ik een systeem als Taqbox binnen een termijn van twee jaar zal gaan gebruiken.	.77	.77
3. Ik zal meteen het initiatief nemen om een systeem als Taqbox te gaan gebruiken.	.73	.79
4. Ik ben geïnteresseerd in Taqbox, maar wil er eerst meer over weten.	.55	.87

Means and Standard Deviations for the Scales

Table 10 shows the means, standard deviations and Cronbach's Alpha of the scales. The highest mean score was found on customer value (3.5; $SD = .8$) followed by customers hedonic motivation (3.4; $SD = .8$) and effort expectancy (3.4; $SD = .8$). The mean score for performance expectancy was 3.2 ($SD = .7$) and for behavioral intention it was 2.9 ($SD = 1.1$). The mean scores for social influence and facilitating conditions was 3.0 ($SD = .9$ and $SD = 1.1$, respectively).

Table 10

Means, Standard Deviations and Cronbach's Alphas for all Scales

	<i>Ms</i>	<i>SDs</i>	α
Performance Expectancy	3.2	.7	.75
Effort Expectancy	3.4	.8	.92
Social Influence	3.0	.9	.78
Facilitating Conditions	3.0	1.1	.74
Customers Hedonic Motivation	3.4	.8	.92
Customer Value	3.5	.8	.83
Behavioral Intention	2.9	1.1	.85

Test of Normality

In order to test whether the mean scores on the eight proposed concepts were normally distributed, the Kolmogorov-Smirnov test was performed. The Kolmogorov-Smirnov statistic measures a gap between the cumulative distribution function and the distribution of scores in the sample (empirical distribution). Significance levels below .05 indicate that the scores in the given sample are normally distributed. In Table 11 it can be seen that all significance levels are below the threshold of .05 except the one of the construct effort expectancy, where the significance level was found to be .2.

Table 11
Kolmogorov-Smirnov with Lilliefors Significance Correction

	Kolmogorov-Smirnov	
	Statistic	Sig.
PE	.16	.00
EE	.10	.20*
SI	.15	.00
FC	.12	.03
CHM	.12	.04
CV	.14	.00
BI	.17	.00

Notes: 1. PE: Performance Expectancy;
 EE: Effort Expectancy;
 SI: Social Influence;
 FC: Facilitating Conditions;
 CHM: Customers Hedonic Motivation;
 CV: Customer Value;
 HoC: Habit of Customers;
 BI: Behavioral Intention
 2. Degrees of freedom for all constructs = 60
 3. This is a lower bound of the true significance

Correlation Analysis of Scales

Table 12 summarizes values for Cronbach's Alpha, means, standard deviations and the correlation among the different concepts. Generally, correlations between the concepts seem to be moderate to high, with many significant correlations found, indicating that the concepts are related to one another. Further, it can be seen, that the correlations between performance expectancy and facilitating conditions are below .3 and insignificant, while performance expectancy correlates significantly with the remaining constructs either at the .05 or .01 level. Effort expectancy correlates significantly with all other constructs, either at the .05 or .01

level. Social influence correlates significantly with all constructs either at the .05 or .01 level except with facilitating conditions. Facilitating conditions correlates rather moderate, although significantly either at the .05 or .01 level with effort expectancy, customer value and behavioral intention. Correlations between facilitating conditions, performance expectancy, customer's hedonic motivation and social influence are insignificant and rather low. Further, customer's hedonic motivation correlates $<.7$ at the .01 level with customer value and behavioral intention. Customer value correlates significantly with behavioral intention ($r=.72$) at the .01 level.

Table 12

Cronbach's Alpha, Means, Standard Deviations and Correlations

	Alpha	Means	S Dev.	PE	EE	SI	FC	CHM	CV	BI
PE	.75	3.2	.74	1						
EE	.92	3.4	.79	.31*	1					
SI	.78	3.0	.91	.69**	.29*	1				
FC	.74	3.0	1.1	.19	.58**	.24	1			
CHM	.92	3.4	.84	.69**	.39**	.66**	.17	1		
CV	.83	3.5	.84	.66**	.53**	.66**	.30*	.75**	1	
BI	.85	2.9	1.1	.69**	.45**	.74**	.33**	.70**	.72**	1

Notes: 1. PE: Performance Expectancy; EE: Effort Expectancy; SI: Social Influence; FC: Facilitating Conditions; CHM: Customers Hedonic Motivation; CV: Customer Value; HoC: Habit of Customers; BI: Behavioral Intention

2. *Correlation significant at the .05 level (2-tailed)

3. **Correlation significant at the .01 level (2-tailed)

KMO and Bartlett's Test of multicollinearity

Results in Table 13 indicate that multicollinearity was not existent as the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was higher than .5 (KMO= .76). Moreover, Bartlett's Test of Sphericity was significant ($p < .01$), indicating absence of homoscedasticity (Field, 2009).

Table 13

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.775
	Approx. Chi-Square	1396.378
Bartlett's Test of Sphericity	df	465
	Sig.	.000

Principal Component Analysis of Items

In order to test what the items most likely measure a principal component analysis with varimax rotation has been carried out for all items. In Table 14 loadings of items on the components are shown. Cross loadings ($r > .5$) were found for PE1 and FC2. PE1 loads .60 on component 1 and .50 on component 3. FC2 loads .64 on component 2 and .54 on component 5. PE2 and PE3 load high on component 4 only and PE4 on component 1 only. The items for effort expectancy load high on component 2 only. The item SI1 loads high on component 1 only, while SI2 and SI3 load high on component 3. FC1, FC2 and FC4 load high on component 5, with FC2 loading also high on component 2. Three items of customer's hedonic motivation load high on component 3 only (CHM1, CHM2 and CHM3), while CHM4 loads high on component 1. All four items measuring perceived customer value load high on component 1 only (CV1-CV4). The same holds for items measuring behavioral intention (BI1-BI4).

Table 14

Principal Component Analysis with all items (Varimax Rotation with Kaiser Normalization)

	Component 1	Component 2	Component 3	Component 4	Component 5
PE1	,60	,20	,50	,28	,08
PE2	,04	,10	,31	,82	,09
PE3	,40	-,08	,08	,77	-,04
PE4	,76	,04	,22	,03	,04
EE1	,09	,78	,30	,16	-,14
EE2	,24	,81	,20	-,12	-,00
EE3	,11	,90	,13	,08	,22
EE4	,22	,86	,03	,04	,19
EE5	,21	,81	,04	-,02	,25
SI1	,64	-,09	,32	,27	,29
SI2	,38	,05	,67	-,02	,14
SI3	,41	,04	,68	,01	,05
FC1	,13	,37	,15	,20	,64
FC2	-,01	,64	,18	-,10	,54
FC4	-,07	,15	,04	-,04	,81
CHM1	,39	,21	,65	,21	,20
CHM2	,42	,21	,76	,11	-,02
CHM3	,23	,28	,70	,27	,07
CHM4	,58	,06	,33	,24	-,06
CV1	,82	,10	,32	,00	-,00
CV2	,80	,23	,23	,04	-,16
CV3	,77	,27	,23	,12	,03
CV4	,80	,10	,23	,26	,03
BI1	,74	,28	,27	,12	,02
BI2	,54	,20	,45	,21	-,03
BI3	,71	,18	,28	-,11	,02
BI4	,60	,45	-,14	,14	,20

Note: PE: Performance Expectancy; EE: Effort Expectancy; SI: Social Influence; FC: Facilitating Conditions; CHM: Customer's Hedonic Motivation; CV: Customer Value; BI: Behavioral Intention

Principal Component Analysis of Scales

In Table 15 results of the principal component analysis are given for the scales. The concepts performance expectancy, social influence, customers hedonic motivation, customer value and behavioral intention load high on component 1 only ($r > .8$). The constructs effort expectancy and facilitating conditions load high on component 2 only ($r > .8$), indicating that two higher order concepts are measured. The eigenvalues are 4.2 and 1.2 for component 1 and

component 2, respectively. Further, component 1 explains 59.8% of variance and component 2 17.7%, indicating that the first component is more important.

Table 15
Principal Component Analysis for Concepts

	Components	
	1	2
PE	.86	.07
EE	.29	.83
SI	.85	.12
FC	.07	.89
CHM	.88	.15
CV	.83	.31
BI	.85	.25

Note: Rotation converged in 3 iterations

PE: Performance Expectancy; EE: Effort Expectancy;

SI: Social Influence; FC: Facilitating Conditions;

CHM: Customer's Hedonic Motivation;

CV: Customer Value; BI: Behavioral Intention

Testing direct effects

In order to test direct effects of performance expectancy, effort expectancy, social influence, facilitating conditions, customer's hedonic motivation and customer value on behavioral intention, ANOVAs have been carried out for each variable as a predictor for behavioral intention, testing H1-H4 and H14-H15. Results are summarized in Table 16. These indicate that all of concepts examined have a direct effect on behavioral intention. Recall that habit of customers was dropped, as the scale was unreliable, which is why the hypothesis, habit of customers will have a positive direct effect on behavioral could not be tested.

Table 16
ANOVAs

Construct	F-value
Performance Expectancy	3.8
Effort Expectancy	4.2
Social Influence	7.9
Facilitating Conditions	2.6
Customer's Hedonic Motivation	5.8
Customer Value	7.0

Note: All values significant at the .01 significance level

Testing moderator effects

ANOVAs were carried out for gender and age as dependent variables on the mean scores of performance expectancy, effort expectancy, social influence and facilitating conditions. Results indicated that none of the independent variables had a significant effect on any mean score of the concepts ($p > .05$). Therefore, the hypotheses H5-H13 were not tested.

Hierarchical Regression

Model 1. Table 17 below shows the beta coefficients for performance expectancy, effort expectancy, social influence and facilitating conditions and accompanied significance levels of the tested concepts included. First, performance expectancy, effort expectancy and social influence were entered with behavioral intention as dependent variable. After that, the concept of facilitating conditions was added. Significant effects of performance expectancy, effort expectancy and social influence were found. What can be seen in the last two rows of Table 17 is that performance expectancy, effort expectancy and social influence explain 64% of variance in behavioral intention. This value is significant at the .01 level. When adding facilitating conditions the explained variance does not change and the significance of the model fit vanishes.

Table 17

Model 1 Hierarchical Regression Analysis

Step		1	2
1.	Intercept	-1.04*	
	Performance Expectancy	.43*	
	Effort Expectancy	.27*	
	Social Influence	.57**	
2.	Intercept		-1.05*
	Facilitating Conditions		.01
R ²		.64**	.64
R ² Change			.00

Note: 1. * significant at the .05 level

2. **significant at the .01 level

Model 2. Table 18 shows the beta coefficients and accompanied significance levels of the included concepts. First, customer's hedonic motivation was entered as a predictor for behavioral intention. This factor is influencing the variance in behavioral intention significantly ($p < .01$) explaining nearly 50% variance in behavioral intention. Next, customer

value has been entered into the model. What can be seen is that the explained variance increases up to 58% ($p < .01$). Moreover, both concepts significantly influence behavioral intention ($p < .01$).

Table 18

Model 2 Hierarchical Regression Analysis

Step		1	2
1.	Intercept	-.09	
	Customers Hedonic Motivation	.90**	
2.	Intercept		-.71
	Customers Hedonic Motivation		.46**
	Customer Value		.59**
	R ²	.49**	.58**
	R ² Change		.09

Note: 1. * significant at the .05 level

2. **significant at the .01 level

Model 3. The last step in data analysis was the performance of a hierarchical regression analysis, testing the full model proposed in four consecutive steps.

In the first step, performance expectancy, effort expectancy and social influence were entered into the model with behavioral intention as dependent variable. What can be seen in the last row of Table 19 is that these three constructs explain 64% of the variance in behavioral intention. Effects of performance expectancy and effort expectancy were significant at the .05 level, whereas the effect of social influence was significant at the .01 level.

In the next step, facilitating conditions was added. No increase in explained variance was found, although the model fit was significant ($p < .01$). The effects of social influence and facilitating conditions were insignificant. Significant effects of performance expectancy ($p < .01$) and social influence ($p < .05$) were found.

The third step was to include customer's hedonic motivation. The explained variance increases up to 68% (R square change = 4%). Significant effects were found for social influence ($p < .01$) and customer's hedonic motivation ($p < .05$).

The last step comprised entering customer value into the model. Customer value increased the explained variance in behavioral intention with 1%. A significant effect for social influence was found ($p < .01$).

Table 19

Model 3 Hierarchical Regression

Step	1	2	3	4
1.	Intercept	-1.04*		
	Performance Expectancy	.43*		
	Effort Expectancy	.27*		
	Social Influence	.57**		
2.	Intercept		-1.05*	
	Performance Expectancy		.43*	
	Effort Expectancy		.26	
	Social Influence		.57**	
	Facilitating Conditions		.01	
3.	Intercept			-1.20
	Performance Expectancy			.25
	Effort Expectancy			.18
	Social Influence			.46**
	Facilitating Conditions			.04
	Customers Hedonic Motivation			.38*
4.	Intercept			
	Performance Expectancy			-1.24**
	Effort Expectancy			.23
	Social Influence			.12
	Facilitating Conditions			.42**
	Customers Hedonic Motivation			.05
	Customer Value			.27
				.21
	R ²	.64**	.64**	.68**
	R ² Change		.00	.04
				.01

Note: 1. * significant at the .05 level

2. **significant at the .01 level

Discussion

Conclusions

The findings of Venkatesh et al. (2003) were replicated, indicated by the results of the first hierarchical regression model. Performance expectancy, effort expectancy and social influence explain 64% of variance in behavioral intention. Facilitating conditions seem not to fit the model, indicated by the unchanged explained variance and insignificance of the model when including this concept. The second model, including customer's hedonic motivation and customer value as predictors for behavioral intention was examined. Results indicated that, the two concepts explained 58% of variance in behavioral intention significantly, indicating that both factors are crucial determinants. In the third model, customer's hedonic motivation and customer value were added to the first model. Results indicate, that customer's hedonic motivation adds 4% of explained variance in behavioral intention. When adding customer value, explained variance increased up to 69%. The Behavioral Intention for Adopting Mobile Marketing Applications (BIAMMA) model was crafted and validated in the field. The research question was approached, with findings suggesting that all factors seem to be influential on the behavioral intention to adopt mCRM Smartphone applications by Dutch retailers.

A questionnaire was crafted adapting items of the original UTAUT model (Venkatesh et al., 2003) and items from UTAUT2 model (Venkatesh, Thong & Xu, 2011). These were translated into the Dutch language. A two pager description was designed in order to introduce Taqbox to the participants. 65 retailers in three cities of the Netherlands participated in the study.

Various hypotheses were formulated relating to test direct effects of concepts on behavioral intention and moderating effects of gender and age. The hypotheses relating to moderating effects (H5-H10) could not be tested as results of ANOVAs indicated that gender and age were not influential on the mean scores of the concepts, indicating homogeneity of the sample. Therefore only direct effects were tested. The construct habit of customers was dropped, as the crafted scale turned out to be unreliable. Therefore H15 was not tested.

ANOVAs indicated that performance expectancy, effort expectancy, social influence, facilitating conditions, customer's hedonic motivation and customer value had significant influence on behavioral intention, supporting H1-H4, H13 and H14. This indicates that these concepts are of importance when concerning behavioral intention to use new Smartphone

applications for mCRM purposes.

An interesting finding of the principal component analysis for the concepts is that facilitating conditions and effort expectancy load high on component 2 only, while the remainder of concepts loads high on component 1 only. This indicates that the scales facilitating conditions and effort expectancy seem to measure a higher order construct, i.e. (individual) expenses to use Taqbox effectively. The other scales load high on component 2 only, indicating that these scales together measure another higher order construct.

Although, facilitating conditions had a significant influence on behavioral intention when included in the first regression model, R square did not change and moreover the significance of the model vanished. This indicates that facilitating conditions seem to be of minor importance to retailers on their behavioral intention. It could however be that facilitating conditions mediates the relationship between performance expectancy, effort expectancy and social influence and behavioral intention, which was not tested in this study. Another reason for this finding is that retailers might rate their resources and knowledge about the possible utilization of Smartphone applications (facilitating conditions) too optimistic.

Concerning results of the second hierarchical regression, customer's hedonic motivation and customer value seem of utmost importance predicting behavioral intention of retailers.

The last model tested in this study included all concepts. As a remainder these were performance expectancy, effort expectancy, social influence, facilitating conditions, customer's hedonic motivation and customer value. Results indicate that these factors are all important concepts predicting behavioral intention of retailers.

Limitations and Recommendations for Future Research

Although, the stores of the participants were located in three different cities of the Netherlands, these cities were quite proximate to each other, which is why the generalization of the conclusions about the results found in this study are limited. It would have been desirable to include more locations and more participants. Also concerning the characteristics of the sample, unfortunately it was not clear whether the sample was representative for innovators and early adopters of new media channels, as many retailers did not indicate their branch. Future research should approach equal numbers of stores in the four branches identified according to the ICT monitor of the HBD.

The two page description of Taqbox was too short to introduce all features and functionalities of the system. The participants had a limited amount of information, but

nevertheless needed to evaluate what it would be like using Taqbox. For future research it is recommended to provide more profound information to participants.

Unfortunately, actual usage behavior could not be included in this study, differently from the studies from Venkatesh et al. (2003) and Venkatesh, Thong and Xu (2011). It would have been desirable to include actual usage behavior; however, the aim of the study was to unravel factors that determine the *intention* to use the system, but not actual usage behavior. Thus the effects of performance expectancy, effort expectancy and social influence on actual usage behavior possibly mediated by behavioral intention could not been examined. A more profound research question would have been to include actual usage behavior, in order to support the findings of earlier research (Venkatesh, Thong & Xu, 2011; Venkatesh et al., 2003).

Moreover, it might be that facilitating conditions mediates the relationship between performance expectancy, effort expectancy and social influence and behavioral intention, which was not tested in this study. It is suggested to examine this issue in future research. This could be done by using different mCRM technologies, such as Belly or other Smartphone applications using different technologies (see Appendix 1 for a description of similar Apps).

The scale measuring habit of customers turned out to be unreliable. The problem with the four items are, that they seem to measure two distinct things, namely (1) whether customers are already consulting electronic media and/or social media sites before or during the purchasing process of a product and (2) whether customers of the particular store already receive email newsletter and/or whether customers come in the store and ask about particular actions they saw on the web site of the store. Clearly, two things are asked here, namely usage of electronic media in general and whether the particular store already has customers which consult electronic media of the store. For future research it is advised to craft a scale which measures these distinct concepts reliably in order to see how these concepts fit the BIAMMA model.

Results of the principal components analysis carried out for all items indicated low discriminant validity of items. Another approach to research what the items measure would have been to perform a confirmatory factor analysis. An interesting finding though is that all items belonging to customer value and behavioral intention loaded on component 1 only. This leads to the assumption that the perceived benefit of retailers' customers when using the application (customer value) is strongly related to the behavioral intention measurement employed in this study.

Perceptions of customer's hedonic motivation and customer value using Taqbox seem of utmost importance predicting behavioral intention of retailers. It is therefore suggested to cross validate this finding. These factors should also be included in other settings. As the original UTAUT model was used predicting behavioral intention and actual usage behavior of employees of new technology systems internal to the organizations, it might be a fruitful approach to include concepts relating to employees' hedonic motivation to use a particular system i.e. a Smartphone application. As was done in this study, one might ask managers of organizations about their perception whether employees would like using the new system (Taqbox), relating to the construct of hedonic motivation. Moreover, these managers should rate whether they perceive that employees would see the benefit of using the new technology. This relates to the constructs of perceived ease of use and perceived usefulness investigated in the TAM model (Venkatesh & Bala, 2008). Most desirably, employees, i.e. customers should directly be included in future research, rather than relying on perceptions of their managers, i.e. retailer's perception.

Another limitation is the confirmatory state of the art of the concepts employed. It might be that still other concepts do play a role on the behavioral intention by retailers. An example of such a concept could be aversion towards daily Smartphone usage or characteristics of the existing customer base of the particular store (age, gender). Some concepts, central to the behavioral intention might have been omitted in this study. For future research it is therefore suggested to apply explorative and qualitative studies by interviewing retailers about their thoughts about using such mCRM Smartphone applications, by that possibly unraveling other concepts of importance.

Although these limitations are apparent, managerial implications on how to approach the Dutch market are deduced from the results found in this study.

Managerial Implications

Concerning the fact that the mean score on behavioral intention mirrors a neutral opinion with a score of 2.9, it seems that retailers do not know whether they would like using Taqbox. The mean score on the question whether retailers would be interested to get to know more about the application was 3.3 with a standard deviation of 1.5, indicating high variance among participants' interest about Taqbox. This standard deviation was the second highest on all items. The question relating to this variance in interest is why retailers would *not* like using the application. Providing more information of the system and its usefulness for mCRM could possibly help. Related to this issue, it seems of utmost importance for Taqbox to show

retailers that using Taqbox is useful for increasing turnover, revenues and/or traffic in cities (performance expectancy). Mean score on the performance expectancy scale was 3.2 ($SD=.7$), indicating that retailers were not quite convinced about the performance of Taqbox when using it.

Secondly, it is necessary to show that the effort accompanied using Taqbox is low. This is related to the fact that Taqbox is user-friendly, bears practical functionalities and that Taqbox is easy to master. The mean score on the effort expectancy scale was 3.4, indicating that retailers were convinced that using Taqbox would be rather easy.

Thirdly, the mean score of customer value was highest for all constructs followed by customer's hedonic motivation (3.5 and 3.4 respectively). This finding is interesting in the sense that retailers perceive that their customers would see the advantages and accompanied benefits when using Taqbox. In this vein the fact that the mean score of the item "*For my customers it is important to know that Taqbox is for free to them*" mean score is 4.4, it seems of utmost importance to retailers, that their customers do not have to pay for the application. Therefore, the management of Taqbox should promote that using the application is and will be free for customers.

Fourthly, concerning customer's hedonic motivation, retailers rate the enjoyment their customers will most likely have using Taqbox quite high. Accompanied with that, the mean score on the item "*I think that my customers will find using Taqbox surprising*" was 3.7. Thus, the management of Taqbox should also try to make use of this perception. It is suggested to use the word *surprise* when marketing their product and moreover, show with the help of consumer studies to show that it really is surprising.

Fifthly, the difference on the mean score on the items "*I anticipate that I will use a system as Taqbox within two years time*" (3.2) and "*I would like to use Taqbox in this year*" (2.7) points to the fact, that retailers may intuitively think that they will use a comparable mCRM system in the long term, but that they are not sure whether it will be Taqbox. Therefore, the management of Taqbox should try to reach as many stores as possible in a short time, before potential competitors approach the Dutch market.

Summarizing, the management of Taqbox needs to show, that using the system enhances performance of stores, indicated by higher revenues and/or turnover. This could be done by using retailers in a particular city, which adopt the application in order to show that Taqbox is indeed helpful for marketing. They need to show that using Taqbox is user-friendly and that becoming master is easy. Retailers need a guarantee that Taqbox is and will be free for their customers. Lastly, Taqbox needs to show that using the system will be (1) enjoyable,

(2) beneficial and (3) surprising for customers, ideally including statements of actual users. It is therefore advisable to design marketing strategies which use words as enjoyment, fun, beneficial, surprising, free service etc. when launching the product to markets.

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Appendices

Appendix 1

Existing Smartphone Applications for mCRM Purposes (Foursquare, Kakaotalk, Scanther, Belly)

|

1. Foursquare

Four Square is a location-based networking site for mobile devices, such as Smartphones, but also to be used non-mobile (Computer, Laptop etc.). It was launched in March, 2009 and is an organization located in New York City, USA, founded by Dennis Crowley and Naveen Selvadurai (<http://foursquare.com>). Previously, Crowley founded the project Dodgeball, which is similar to Foursquare. However, in 2005 Google bought Dodgeball and shut it down in 2009, replacing it with Google Latitude, which is coupled to Google maps (<http://techcrunch.com>, <https://www.google.nl/latitude>). In 2010, 15 million users were registered on Foursquare and it was growing rapidly since that time, counting no less than 20 million users in April, 2012 (<http://mashable.com>).

Users can check in via their (mobile) devices to check out different venues. Each time a user checks in, user points are earned. The system uses Global Positioning System (GPS) to locate actual users, after permission is granted. Users are able to check in at different locations via the website of Four Square with the help of an SMS or with other more specific programs (applications) which are available for Android, BlackBerry, iOS etc. User need to register ones to use the mobile application and subsequently they can share what they do in which place with their families and friends. Four Square makes it possible for users to make their actual location public on Twitter and Facebook. Moreover, users can create a “to-do-list” or share their suggestions with other users of the system, for example to recommend a particular shop or a restaurant. The user who has the most check in points at a location becomes the mayor of the location, by that triggering people in various locations to check in more often, thus using the system more often to become the mayor of the particular location (<http://foursquare.com>).

Foursquare is thus a new medium for businesses to get discovered by other users, which read recommends of others on this platform. Ones businesses are registered on Foursquare, they can publish updates, clearance sales, listing events or specials to trigger people to visit their business. With the help of analytics provided by Foursquare, businesses can measure their success in terms of amount of check ins, published actions on Twitter and/or Facebook, who are the best customers of their business. The business can follow each and every activity of users on Foursquare. Thus, Foursquare strives to connect people with businesses and also making customers talk with each other about their favorite places.

More information can be found, following the links provided below.

<http://mashable.com/2012/04/16/foursquare-20-million/>

<http://techcrunch.com/2006/10/18/dodgeballcom-officially-googled/>

<https://www.google.nl/latitude/b/0>

<http://www.qype.com/>

<http://www.yelp.com/>

<https://de.foursquare.com/about/>

2. Kakao Talk

Kakao Talk is an instant messenger released in March 2010, located in Seoul, Korea and is available for free download for mobile Smartphones. It is stated that it developed out of

nothing, nowadays omnipresent in Korea's daily life and also slowly more visible in other countries (<http://www.korea-marketing.com>). It has become the no. 1 social networking service and provider of popular games, counting no less than 70 million users worldwide, with 90% of the users registered in Korea in December 2012. Concerning the fact that 72.4% of respondents according to a survey were not willing to buy a Smartphone which does not support the instant messenger service, it seems that Kakao Talk has taken the lead in users preference to use Kakao Talk as social networking site over others (<http://www.korea-marketing.com>).

By the provision of various games, Kakao Talk created fast revenues. In that sense, Kakao Talk found a fast and innovative way to become profitable. Google it? No Katak me! Roughly 4.2 billion messages a day are transferred via Kakao Talk! The average time users spend on Kakao Talk is 53 minutes. For a comparison, users spend almost nine minutes on what's app. It supports 12 languages and is available in 230 countries (<http://www.korea-marketing.com>).

The application makes it possible for users to share and recommend particular places they are visiting or which they have visited via leaving posts or uploading photographs, videos, contact information to the platform. Every user, who is connected to Kakao Talk can share information either on a one-to-one basis or in groups. Users can, similar to Foursquare vote for particular stores and share information with their friends or unknown users which are also connected. Additionally, users may create questions, discussions, ideas etc. they can pose to other users which are connected. Moreover, there is the possibility that users can create polls to send to particular users they select. By showing simple graphs, provided by the application, users can see the most liked places.

Users simply have to type in their mobile phone number to register at Kakao Talk.

Messages exchanged are shown in one screen in chat bubbles. Kakao Talk was the first mobile messenger to accommodate group conversations.

Registration by mobile phone number, even friends which are not yet registered are shown to registered users, in order to trigger them to invite them to use Kakao Talk.

Opposed to Foursquare and the other application which follow this description, Kakao Talk is rather a customer-to-customer social network application, which only indirectly promotes shops, stores or sights to other customers.

More information can be found, following the links provided below.

<http://www.korea-marketing.com/kakaotalk-mobile-app-case-study/>
www.kakao.com/talk/en

3. Scanther

Based in Austin, Texas, USA, Scanther is a mobile social networking application for Smartphones that helps businesses to stay in contact with their customers and to obtain more customers. Social and online engagement of customers' maintenance is the aim of the Scanther application (<http://www.scanther.com>).

In order to adapt Scanther, businesses need to purchase first a Scanther dashboard. Scanther works, like Taqbox and Belly (to which is referred to in the next section) with the help of QR-codes connecting businesses with customers. Customers receive a QR-code in the particular store which they have to scan with their mobile Smartphone or tablet. After that they are connected to the store via the platform Scanther. Not much information is provided by the organization on the web. The website is almost empty. A movie can be seen about the functionality of Scanther here. Scanther also makes use of Near Field Communication technology (NFC), which allows wireless data exchange via a small distance. Scanther allows user to hold their Smartphone in front of the Dashboard of the particular store. In turn the customer is connected to Scanther and the store. Scanther is also a website, allowing users to

provide information about stores on their personal Scanther blog. Videos, photographs can get published by that making a connection between the store and the customer and in turn to more friends of the customer. It is also connected to social media sites such as Facebook and Twitter. Users and businesses may also start a survey via the Scanther platform. Thus, the Scanther platform makes connection to customers, even when they walk out the store.

However, customer-to-customer connection is also possible.

More information can be found, following the links provided below.

<http://www.scanther.com/>

<http://www.heise.de/newsticker/meldung/Sparkassen-fuehren-NFC-Payment-ein-1403383.html>

<http://www.nfcworld.com/2013/01/08/321777/hyundai-shows-off-nfc-car-key-concept/>

<https://www.facebook.com/Scanther>

4. Belly

Maybe the Belly application for Smartphones shares most similar functionalities as Taqbox. Belly is located in West Chicago, USA. When visiting the web site of Belly their quote is as follows: *Collect loyalty points to get rewards, engage your local customers*

(<https://www.bellycard.com>). This is what Taqbox also does, rewarding loyalty of customers.

On the one hand Belly is a Smartphone application which can be downloaded for free. On the other hand, stores are provided with so called Belly cards with a QR printed on it. Customers can then scan this code within the shop at the so called Belly I-pad serving as the hub of the loyalty program, which needs to get purchased by the particular store. With every visit customers can collect loyalty points, either via their Belly loyalty card or via the Belly Smartphone application. If they have purchased enough loyalty points they can redeem these loyalty points for particular products in stores, which are connected to Belly. Customers redeem the points, subsequently they need to show this redemption to a store employee and finally customers receive the particular product.

Belly “[...] helps businesses [to] create smart and customized loyalty programs, and Belly helps customers feel warm and fuzzy about their loyalty”
(<https://www.facebook.com/video/video.php?v=871350300337>).

Belly is connected to Yelp to which is referred earlier, in the description of Foursquare, and also to Facebook and Twitter (<https://getbelly.com>). Moreover, Belly makes it possible to keep track of the activity of their customers, once they have registered on the platform.

Belly destines to be a free loyalty program, however businesses need to purchase the tablet and need to pay monthly.

Summarizing, Belly is a loyalty program initiative, supported by the Belly Smartphone application and the Belly I-pad, engaging customers with their favorite stores in order to make a connection between the business and the customers. Moreover, customers can share information about Belly locations using Yelp (<https://getbelly.com>).

More information can be found, following the links provided below.

movie: <https://www.facebook.com/video/video.php?v=871350300337>

movie 2 <http://vimeo.com/68165924>

<https://www.bellycard.com/>

<https://getbelly.com/>

Appendix 2

Two Pager Description of Tagbox

Beste ondernemer,

Mijn naam is Boris Ney en ik ben student aan de Universiteit van Twente. In verband met mijn Master Thesis doe ik onderzoek naar mobile marketing.

Mobile marketing heeft zeker de toekomst maar wordt toch langzaam geadopteerd. Ik ga onderzoeken waarom en ondernemer een nieuwe mobile marketing applicatie wel of niet zou willen gebruiken.

Alvast bedankt voor u medewerking!

mobiel internet dagelijks gebruik



U, als winkelier wil...

- Klant gedrag begrijpen
- Klant relaties opbouwen en onderhouden.
- Meer traffic naar de winkel en binnenstad creëren...

Maar hoe kan ik mijn klanten bereiken om een relatie op te bouwen?

GROUPON? : 75% marge
 Google? : \$2 per click
 Advertentie? : \$2,500
 Sociaal media is meer voor vrienden...

Email is private



Waarom gebruik ik dit waardevolle fysieke moment niet?

Terwijl de mensen die ik wil bereiken langs mijn winkel lopen

- Persoonlijk contact
- Klanten zijn online
- Klanten zijn meest ontvankelijk voor mijn boodschap



Connect met je klanten wanneer klanten in je winkel staan?

De oplossing



en beloon je klanten om vaker terug te komen.

Taqbox is een mobile marketing applicatie die het fysieke moment dat u met de klant in de winkel staat gebruikt om een connectie te maken tussen u, uw winkel en de klant

Klanten scannen om je bedrijf te volgen

Op het moment dat iemand in de winkel staat geeft u een QR-Code met een verrassing voor je klant daarachter. Hiermee kun je de eerste connectie maken.

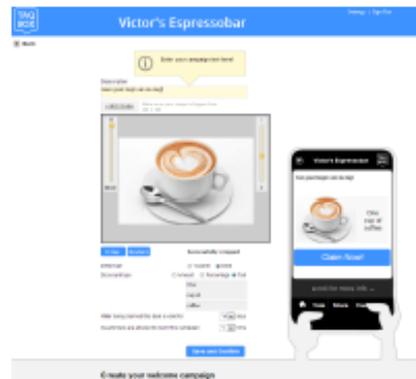


Rechtstreeks contact met je klanten

Wanneer de connectie er eenmaal is.. Kun je klanten rechtstreeks bereiken en verrassen om vaker terug te komen!

Bereik je klanten persoonlijk

U ziet hier hoe u een campagne kunt maken en sturen naar je klanten. Wordt het een deal, evenement, korting of een update, aan jou de keus. Selecteer een campagne en binnen 5 minuten stuur je deze naar al je klanten!



Maak gebruik van "mond-tot-mond" reclame

Er is de mogelijkheid om een klant extra korting te bieden, als deze uw actie op zijn prive netwerk op Facebook of Twitter publiek gaat maken. Indien de klant dat niet wenst, is de popup makkelijk over te slaan.

Appendix 3

Original Items from UTAUT (Venkatesh, Davis, Morris and Morris, 2003)

Table 16. Items Used in Estimating UTAUT

Performance expectancy

- U6: I would find the system useful in my job.
- RA1: Using the system enables me to accomplish tasks more quickly.
- RA5: Using the system increases my productivity.
- OE7: If I use the system, I will increase my chances of getting a raise.

Effort expectancy

- EOU3: My interaction with the system would be clear and understandable.
- EOU5: It would be easy for me to become skillful at using the system.
- EOU6: I would find the system easy to use.
- EU4: Learning to operate the system is easy for me.

Attitude toward using technology

- A1: Using the system is a bad/good idea.
- AF1: The system makes work more interesting.
- AF2: Working with the system is fun.
- Affect1: I like working with the system.

Social influence

- SN1: People who influence my behavior think that I should use the system.
- SN2: People who are important to me think that I should use the system.
- SF2: The senior management of this business has been helpful in the use of the system.
- SF4: In general, the organization has supported the use of the system.

Facilitating conditions

- PBC2: I have the resources necessary to use the system.
- PBC3: I have the knowledge necessary to use the system.
- PBC5: The system is not compatible with other systems I use.
- FC3: A specific person (or group) is available for assistance with system difficulties.

Self-efficacy

- I could complete a job or task using the system...
- SE1: If there was no one around to tell me what to do as I go.
- SE4: If I could call someone for help if I got stuck.
- SE6: If I had a lot of time to complete the job for which the software was provided.
- SE7: If I had just the built-in help facility for assistance.

Anxiety

- ANX1: I feel apprehensive about using the system.
- ANX2: It scares me to think that I could lose a lot of information using the system by hitting the wrong key.
- ANX3: I hesitate to use the system for fear of making mistakes I cannot correct.
- ANX4: The system is somewhat intimidating to me.

Behavioral intention to use the system

- BI1: I intend to use the system in the next <n> months.
- BI2: I predict I would use the system in the next <n> months.
- BI3: I plan to use the system in the next <n> months.

*Appendix 4**Original Items from UTAUT2**Hedonic Motivation*

- HM1. Using mobile Internet is fun.
- HM2. Using mobile Internet is enjoyable.
- HM3. Using mobile Internet is very entertaining.

Price Value

- PV1. Mobile Internet is reasonably priced.
- PV2. Mobile Internet is a good value for the money.
- PV3. At the current price, mobile Internet provides a good value.

Habit

- HT1. The use of mobile Internet has become a habit for me.
- HT2. I am addicted to using mobile Internet.
- HT3. I must use mobile Internet.
- HT4. Using mobile Internet has become natural to me. (dropped)

*Appendix 5**Reformulated Items**Customer's Hedonic Motivation*

- Het gebruik van Taqbox zouden mijn klanten plezierig vinden.
- Het gebruik van Taqbox zouden mijn klanten gezellig, prettig vinden.
- Het gebruik van Taqbox zouden mijn klanten amusant, vermakelijk vinden.

Customer Value

- Mijn klanten zouden de voordelen van het gebruik van Taqbox beseffen.
- Mijn klanten zouden direct baat bij hebben Taqbox te gebruiken.
- Mijn klanten zouden de moeite doen om Taqbox op hun Smartphone te installeren.

Habit of Customers

- Mijn klanten gebruiken al soortgelijke media.
- Mijn klanten checken social media sites van het bedrijf.
- Wij hebben al veel klanten die onze newsletter per email ontvangen.
- Regelmatig komen klanten binnen en vragen naar bepaalde acties die ze op internet tegen kwamen.
- Het is normaal dat mijn klanten nieuwe media gebruiken om koopjes te maken.

Appendix 6
Questionnaire

Beste winkelier,

Onderstaande vragen gaan over uw perceptie van een mobiel klantrelatiebeheersysteem. Onder 'Taqbox' mag u ook een soortgelijk systeem verstaan dat onder een ander merk opereert, voor het geval u dergelijke systemen al kent. Het zijn hypothetische vragen, wat wil zeggen dat ze gebruik van dit systeem veronderstellen. Het is dus niet belangrijk dat u daar al ervaring mee heeft. De antwoorden zijn subjectief en er is dus geen goed of fout antwoord. Met andere woorden: Het gaat over uw oordeel en gevoel bij Taqbox met het oog op gebruik in uw winkel en door uw klanten, op basis van het beeld dat u daar nu over hebt.

Probeer niet te lang over een vraag na te denken, want vaak is het antwoord dat het eerste in u opkomt het meest van toepassing. In totaal zijn het 32 gesloten vragen, en 2 open vragen. Het invullen van de vragenlijst zal ongeveer 10 minuten duren. Als u een antwoord wilt veranderen, omcirkel dan het foute antwoord en vink vervolgens u nieuwe antwoord aan (zie het voorbeeld hieronder).

*Helemaal
mee
oneens*



*Helemaal
mee eens*

De resultaten van deze vragenlijst worden strikt vertrouwelijk behandeld en anoniem verwerkt.

Wilt u erop letten dat alle vragen beantwoord zijn?

Heel hartelijk bedankt alvast!!!

A) Verwachting over de werking van Taqbox

1. Ik zou Taqbox zeer bruikbaar vinden in mijn werk.

Helemaal mee *Helemaal mee eens*
oneens

2. Het gebruik van Taqbox zou tot gevolg hebben dat ik taken sneller kan afhandelen.

Helemaal mee *Helemaal mee eens*
oneens

3. Het gebruik van Taqbox zou mijn productiviteit verhogen.

Helemaal mee *Helemaal mee eens*
oneens

4. Als ik Taqbox gebruik, zou dat mijn kans tot omzetverhoging vergroten.

Helemaal mee *Helemaal mee eens*
oneens

B) Moeite die u zou moeten doen om Taqbox te gebruiken

5. Het werken met Taqbox zou duidelijk zijn voor mij.

Helemaal mee *Helemaal mee eens*
oneens

6. Het zou makkelijk zijn om Taqbox te leren beheersen.

Helemaal mee *Helemaal mee eens*
oneens

7. Ik zou Taqbox makkelijk in gebruik vinden (gebruikersgemak).

Helemaal mee *Helemaal mee eens*
oneens

8. Taqbox is handig in gebruik (functionaliteit).

Helemaal mee *Helemaal mee eens*
oneens

9. Het leren bedienen van Taqbox zou ik makkelijk vinden (eenvoud/simpelheid).

Helemaal mee *Helemaal mee eens*
oneens

C) Sociale Invloed

10. Mensen uit mijn directe omgeving (zoals families, collega's, vrienden, etc.) denken dat ik gebruik zou moeten maken van Taqbox.

Helemaal mee *Helemaal mee eens*
oneens

11. Mensen met wie ik een zakelijke relatie heb (bijv. franchisegever, inkoopcombinaties, etc.) vinden dat ik Taqbox zou moeten gebruiken (geldt niet voor klanten).

Helemaal mee *Helemaal mee eens*
oneens

12. Mensen in mijn bedrijf (bijv. werknemers, management) vinden dat ik gebruik zou moeten maken van Taqbox.

***Indien van
toepassing:***

Helemaal mee *Helemaal mee eens*
oneens

D) Ondersteunende omstandigheden

13. Ik zou alle middelen hebben om Taqbox te gebruiken.

Helemaal mee *Helemaal mee eens*
oneens

14. Ik heb de benodigde kennis om Taqbox te gebruiken.

Helemaal mee *Helemaal mee eens*
oneens

15. Taqbox is niet compatibel met andere systemen die ik gebruik.

Helemaal mee *Helemaal mee eens*
oneens

16. Ik heb toegang tot personen die mij assistentie kunnen geven, als er complicaties met Taqbox zouden zijn.

Helemaal mee *Helemaal mee eens*
oneens

E) Gedragsintentie

17. Ik zou Taqbox nog dit jaar willen gebruiken.

Helemaal mee *Helemaal mee eens*
oneens

18. Ik voorzie dat ik een systeem als Taqbox binnen een termijn van twee jaar zal gaan gebruiken.

Helemaal mee *Helemaal mee eens*
oneens

19. Ik zal meteen het initiatief nemen om een systeem als Taqbox te gaan gebruiken.

Helemaal mee *Helemaal mee eens*
oneens

20. Ik ben geïnteresseerd in Taqbox, maar wil er eerst meer over weten.

Helemaal mee *Helemaal mee eens*
oneens

F) Verwachtingen wat klanten zouden vinden

21. Het gebruik van Taqbox zouden mijn klanten aantrekkelijk vinden.

Helemaal mee *Helemaal mee eens*
oneens

22. Het gebruik van Taqbox zouden mijn klanten plezierig vinden.

Helemaal mee *Helemaal mee eens*
oneens

23. Het gebruik van Taqbox zouden mijn klanten gemakkelijk vinden.

Helemaal mee *Helemaal mee eens*
oneens

24. Ik denk dat mijn klanten het systeem verrassend zullen vinden.

Helemaal mee *Helemaal mee eens*
oneens

G) Waarde die klanten aan Taqbox zouden hechten

25. Mijn klanten zouden de voordelen van Taqbox beseffen.

Helemaal mee oneens *Helemaal mee eens*

26. Mijn klanten zouden er direct baat bij hebben Taqbox te gebruiken.

Helemaal mee oneens *Helemaal mee eens*

27. Mijn klanten zouden de moeite doen om Taqbox op hun Smartphone te installeren.

Helemaal mee oneens *Helemaal mee eens*

28. Voor mijn klanten is het belangrijk te weten dat Taqbox voor hen gratis is.

Helemaal mee oneens *Helemaal mee eens*

H) Gewenning van klanten om elektronische media te gebruiken

29. Mijn klanten raadplegen elektronische media voor of tijdens de aankoop.

Helemaal mee oneens *Helemaal mee eens*

30. Mijn klanten checken regelmatig sociaal media sites van bedrijven.

Helemaal mee oneens *Helemaal mee eens*

31. Wij hebben al veel klanten die onze nieuwsletter per email ontvangen.

Helemaal mee oneens *Helemaal mee eens*

32. Regelmatig vragen klanten naar bepaalde acties die ze op mijn website tegen kwamen.

Helemaal mee oneens *Helemaal mee eens*

Leeftijd

Geslacht m v

Branche

Nogmaals dank dat u aan het onderzoek deel hebt genomen. De resultaten worden binnen de komende drie maand gerapporteerd. Indien u daarvan een exemplaar wenst te ontvangen, laat hier dan uw emailadres achter, of vraag de gegevens op door mij te mailen.

Email: _____