

COMMITTED TO CONTENT PROVIDER OR MOBILE CHANNEL? DETERMINANTS OF CONTINUOUS MOBILE MULTIMEDIA SERVICE USE

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ABSTRACT

The focus of the article is analysis of relationships between value perceptions, commitment and intentions to use mobile multimedia service (MMS) content. Attracting a committed wide audience end-user base that uses multimedia content frequently is essential for success of the services. Customers' preferences for both the content provider and for the channel used are included. This is necessary for exploring further how to increase continuous use and revenue per user in the mobile field. In the empirical case of mobile multimedia services in the real estate business, intentions to use the same service provider again were found to be directly influenced by commitment to use the same provider, and indirectly by emotional and social value perceptions of MMS content. The usefulness of the content had no effect on intentions to use the same provider. However, it influenced intentions to use the mobile channel as such. Implications for theory and marketers are discussed.

INTRODUCTION

In recent years, companies have started to extend their cross-media strategies by implementing SMS (short message service) and MMS (multimedia messaging service)^[1] - based content in their service offerings (Feldmann 2005). The importance of the mobile channel in multi-channel strategies is expected to increase, as the customers require interactive service anytime, anywhere (Pagani 2004). The electronic channels add to the traditional media and enable customers to

access content via several media or distribution channels (e.g. Internet, mobile channel, digital television, magazines, brick and mortar stores). Offering valuable content via mobile devices is expected to be increasingly important in gaining a competitive edge by strengthening relationships with the customers (Lin and Wang 2006).

Creating profitable content requires long-term customer relationships and understanding of what influences the users' commitment to a mobile vendor and their

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repeat purchase intentions (Lin and Wang 2006). Since there is a finite number of users, customers should value the content so that they are willing to pay for it and optimally be kept long-term after the trial (Peffer and Tuunanen 2005). Lack of understanding of the needs and requirements of the wide end-user audience and of the ability to keep the trial users of new technology may easily result in market failure (Tuunanen 2003). In this vein, value perceptions have proven to be useful, since they are linked to purchase behaviour. Thus, companies should try to attract customers that are committed to the provider and prefer to use the mobile channel to access content services. Furthermore, they should also aim at providing content that these users perceive as valuable.

The technology acceptance model (TAM) has become a cornerstone of IS research (Scornavacca, Barnes, and Huff 2006). However, previous TAM theories offer little insight as to how to promote commitment to content provider and what the wide audience perceives as valuable in the content offered with the help of the technology. Traditional TAM studies do not take into account the positive attitude towards a provider that is essential for attracting and keeping the wide audiences. New theories should be tested empirically in the mobile field, where previous research has long been dominated by descriptive and conceptual analysis (Scornavacca, Barnes, and Huff 2006). Thus, this study aims at adding to the mobile research field. It also fills a gap in the IS field by analyzing commitment to content provider and how value perceptions influence it. Theories that help to understand how to commit users to use one content provider's services in the long run are essential for keeping the wide audience end-users. Moreover, perceived value theories are helpful in examining why mobile content is used.

Services marketing theories do not explicitly account for the influence of new technology or the channel used to access the service, which is increasingly important in new self-service contexts where users can choose between several distribution channels. Since the electronic channels are gaining importance and content providers have to offer services via multiple channels, the influence of the

CONTRIBUTION

This paper contributes to the information systems (IS) literature by applying value and commitment theories that give new insights into what affects continuous use of multimedia content, and what the end-users perceive as valuable in them. TAM models estimate feelings towards systems, software, or technology, but ignore users' attitude towards the organization providing the content. This paper fills this gap in IS literature by applying commitment theories that emphasize the emotional attachment to the provider organization or brand. The paper also contributes to the services marketing field by analyzing how value propositions influence the commitment and intentions to use the mobile channel or technology as such. This is one of the few studies to empirically explore commitment to use the mobile channel in multi-channel environments.

The results show that continuous use of one provider's services is driven by hedonic value of using MMS, commitment to provider having a mediating effect on continuous use intentions. Utilitarian aspects that have received attention in TAM studies, such as usefulness or relative advantage, seem to have little influence compared to hedonic elements in building provider commitment. This information is essential for researchers, service developers and marketers in technology related fields, who aim to attract potential wide audiences that will continue to use one provider's mobile content after trial.

channel used will become a priority for academics and practitioners involved in services marketing in the future (Bolton, Lemon, and Verhoef 2004). How the technology used affects relationships between customers and organizations is yet to be discovered in the service marketing field (Bitner, Brown, and Meuter 2000; Sweeney and Morrison 2004), and is considered one of the most serious challenges for long-term relationship building and survival of organizations (Zineldin 2000).

Therefore, this study incorporates elements from both service marketing and IS fields, and analyzes intentions of continuous use of the mobile channel as such (technology) and intentions to use the same content provider (organization offering the services). In this study, the mobile channel is defined as a service distribution channel and a means of communication between the provider organization and the customer, using advanced telecommunications and multimedia technologies through a mobile handheld device (e.g. PDA, smart phone, mobile, or cellular phone).

The purpose of this study is to analyze the relationships between perceived value, commitment to the mobile channel and to the service provider, and behavioural intentions to use the mobile channel and the service provider. The results provide implications on what influences the use intentions of MMS content in general, and intentions to use the same service provider continuously, irrespective of the channel.

The structure of the paper is as follows. First, the traditional TAM models used in IS literature are briefly described and the use of alternative theories for predicting use of mobile content is explained. Three key differences between constructs used in this study and constructs used in TAM studies are also discussed. Second, the theoretical constructs of perceived value, commitment, and intentions to use are described. Third, the hypothesized relationships between the constructs are presented and tested. After presenting the results of the study, the paper concludes with implications and suggestions for future research.

THEORETICAL BACKGROUND

In IS literature, user attitudes and intentions to use technology are analyzed with the help of technology adoption models (TAM) that stem from theory of reasoned action (TRA) (Fishbein and Ajzen 1975) and theory of planned behaviour (Ajzen 1991). TAM has been widely used both in marketing and information systems literature to predict trial use; i.e. adoption of new technologies, services, systems or media (Agarwal and

Prasad 1999; Davis 1989; Davis, Bagozzi, and Warshaw 1989). Since TAM was developed in an organizational setting, these models ignore the users' perceptions of the content provider organization, as well as their perceptions of the content that needs to be paid for. Recent work in this area also acknowledges the limitations of requirement engineering studies in the IS field, especially while designing content for BtoC markets where the needs and requirements of the wide potential end-user audience vary, and where the end-users are not within organizational reach (Baron, Patterson, and Harris 2006; Tuunanen 2003). TAM models have also been criticized for not accounting for the human and social process of technology use (Legris, Ingham, and Collette 2003), and further research has been encouraged to explore the direct effect of additional new determinants of use behaviour (Venkatesh and Davis 2000).

Moreover, the value of the mobile content has received little attention in comparison to new mobile technologies per se, even though technologies and solutions are only a means of using the content. Furthermore, in IS literature, only conceptual attempts have been made so far to measure the customer attitude towards using the system, product, service or channel (Bobbitt and Dabholkar 2001; Pagani 2004). The traditional TAM model is illustrated in Figure 1. In order to provide an improved explanation of consumer behaviour, dimensions from other fields have been included in the TAM (Kaasinen 2005; Legris, Ingham, and Collette 2003). The included dimensions represent value, perceived enjoyment, social influence, voluntariness, image, control, facilitating conditions and attitude to the channel or to technology itself (Bobbitt and Dabholkar 2001; Dabholkar and Bagozzi 2002; Kleijnen, Wetzels, and de Ruyter 2004) or to mobile service (Nysveen, Pedersen, and Thorbjørnsen 2005). Nevertheless, even recent extended TAM models offer little insight into understanding commitment to content provider, because in TAM models attitude to technology is conceptualized as positive or negative feelings related to a system (Venkatesh, Morris, Davis, and Davis 2003).

It is also usual to include a perceived ease of use variable in TAM models. Perceived ease of use is not analyzed in this study, because ease of use has been found to influence only intentions to trial use, but not continuous use (Karahanna, Straub, and Chervany 1999). However, several studies have shown that perceived usefulness has a dominating influence compared to ease of use for potential users (for an extensive review see Legris, Ingham, and Collette 2003). Perceived usefulness of the TAM model is similar to the utilitarian value construct in the marketing literature, because it depicts the task-oriented nature of the perceived value that enables the user to solve a problem effectively. However, it does not acknowledge the price of the product or service, because TAM models stem from organizational settings where use of technology is not voluntary and monetary sacrifices from the user are not required. Furthermore, the traditional TAM model does not incorporate the hedonic aspects of the use experience that emphasize the importance of the fun and enjoyment derived from using the content with the help of technology. Neither does it assess social appreciation people gain by using mobile services. Mobile services in particular are used in social situations where

making a good impression on others is important.

Therefore, in this paper, the author applies the value-based view that depicts the motivation for continuous use of the content. By applying theories that mainly stem from the service marketing field, an alternative approach for assessing intentions to use mobile services is suggested. The value-based approach is expected to provide more insight for marketing purposes than the traditional technology adoption model approach, because it also indicates what users perceive valuable in the MMS content.

In the marketing literature, perceived value has proven to be a stable predictor of intentions to buy (Duman and Mattila 2005; Parasuraman and Grewal 2000; Voss, Spangenberg, and Grohmann 2003). Furthermore, perceived value directly influences commitment to a provider and, indirectly, intentions to use the same provider in the future (Luarn and Lin 2003; Pura 2005). The established way to analyze customer behaviour in the service marketing field that emphasizes the content provider organization is illustrated in Figure 2.

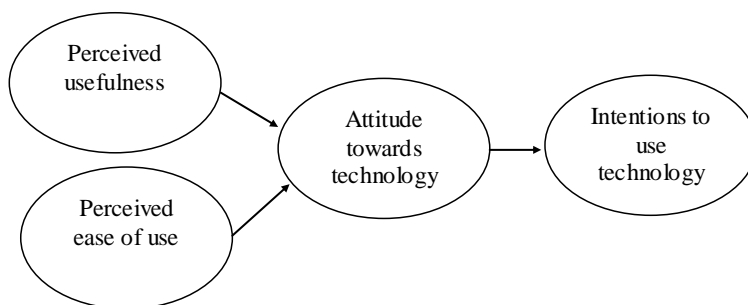


Figure 1. The View Used in TAM Models

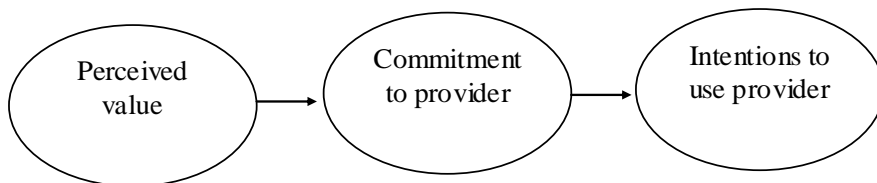


Figure 2. The Service Marketing View

The value and commitment theories used in this study are different from the TAM constructs presented in Figure 1 in the following main aspects:

- Perceived value includes a wide array of aspects that are related to users' motivations to use the content, in addition to willingness to use the new technology or mobile channel as such. Perceived value incorporates not only utilitarian aspects (also reflected by the usefulness or relative advantage construct) but also hedonic, emotional aspects of experiential use. Moreover, the social aspects of social acceptance, recognition, and gaining appreciation of others by using MMS content, are also included.
- "Commitment to provider" is defined as a desire to maintain a relationship with the service provider. A similar view is applied to "commitment to mobile channel", thus emphasizing the personal meaning of the preference for using a mobile channel as such, even if alternative channels are available. In TAM theories, attitude to behaviour or technology used is defined as a narrower construct describing positive or negative feelings about the system.
- In this study, intentions to use are analyzed both with regard to the mobile channel as such (technology) and to the content provider (organization offering the service). TAM models only measure attitude towards technology (or a system). In addition, intentions in this study are measured as intentions for continuous use in the future. Some TAM models measure intentions merely as likelihood to adopt a system (see e.g. Chin and Gopal 1995).

THE RESEARCH MODEL

This chapter begins with descriptions of the constructs of perceived value, commitment and intentions to use that are commonly used in marketing theories. The research model is presented in Figure 3. Second, theories of how utilitarian and hedonic value perceptions are expected to influence commitment and intentions to use are presented. Third, the relationships between commitment and

intentions to use are hypothesized. Fourth, cross-effects between channel and content provider are proposed.

Perceived Value

Value as a concept is employed across disciplines and paradigms, such as social science and economics, management, marketing, accounting and financing. From an organization management perspective, creating and delivering superior value to the most profitable customers will increase the equity of the organization. However, delivering value to customers requires understanding of the customers' needs, desires and value perceptions. Thus, recently, the concept of customer perceived value has grown in popularity within business research. It is value that customers perceive they receive or experience (Bettman, Luce, and Payne 1998). It influences not only the use of services and products, but also the use of channel, because customers evaluate the perceived value of the mobile channel compared to existing alternatives (Anckar and D'Incau 2002). In the mobile field, a customer interacts with the service provider (or the mobile self-service interface) in a given context and evaluates the content based on previous experiences and underlying values.

Furthermore, in marketing and information systems literature perceived value is often divided into hedonic and utilitarian aspects, depicting differing customer needs and requirements for different types of products and services. In the consumer behaviour literature, several researchers have used utilitarian and hedonic value to capture the multifaceted nature of consumption (Babin, Darden, and Griffin 1994; Chandon, Wansink, and Laurent 2000; Hirschman and Holbrook 1982; Koiso-Kanttila 2005; Noble and Griffith 2005; Novak, Hoffman, and Duhachek 2003; Sweeney and Soutar 2001; van der Heijden 2004). Utilitarian value refers to problem-solving and the effective achievement of a goal, whereas hedonic value highlights the importance of the fun and enjoyment derived from using the product, service or technology. Utilitarian value is usually depicted by terms such as valuable, beneficial, useful, wise (Bearden and Netemeyer 1999; Spangenberg,

Voss, and Crowley 1997). Thus, utilitarian value includes the perceived usefulness aspect that has consistently been reported as a strong predictor of technology use intentions (Childers, Carr, Peck, and Carson 2001; Legris, Ingham, and Collette 2003; Venkatesh and Davis 2000).

Items that measure hedonic value often include terms such as pleasant, nice, happy, delightful, funny, enjoyable, amusing (Bearden and Netemeyer 1999; Spangenberg, Voss, and Crowley 1997). Hedonic, experiential behaviour has gained in importance in technological environments, where many individuals perceive the process of using a service more important than the result of the consumption (Novak, Hoffman, and Duhachek 2003). In TAM literature, the hedonic aspects have been measured by enjoyment items (Childers, Carr, Peck, and Carson 2001; Chin and Gopal 1995; Davis, Bagozzi, and Warshaw 1989; Moore and Bensabat 1991; Pagani 2004), whereas social appreciation gained by the mobile content use has not gained much attention. Social use experience and gained social appreciation are important, especially in the mobile service field. Social aspects are also essential in the real estate field, where the search process and purchase decision usually involve the whole family.

In mobile contexts, social aspects have traditionally been conceptualized as social norms, i.e. pressure from others to use new technology (Kleijnen, Wetzels, and de Ruyter 2004; Venkatesh, Morris, Davis, and Davis 2003). However, the social user experience as such has not explicitly been taken into consideration in this field, and further research is encouraged in order to provide a more complete understanding of intentions to use new technology (Celuch, Goodwin, and Taylor 2007). Social value is likely to be important for users of mobile services in group situations mainly for the sake of the social experience as such. This kind of social aspect of consumption is hedonic in nature. Support for linking emotional value with social value and defining them as hedonic value was found e.g. in Sheth, Newman, and Gross (1991). They state that social value linked to choice behaviour is similar to emotional value in that they both overlap with theories in social

psychology that explain belongingness needs, fun, comfort and esteem needs. In addition, social value also pertains to acceptance, recognition, and influence needs. Furthermore, emotional and social value are both differentiated from utilitarian needs that Sheth, Newman, and Gross (1991) describe as functional value. Therefore, in this study hedonic value incorporates both emotional and social aspects.

Commitment to Provider and to Mobile Channel

Commitment has been conceptualized in different ways in previous literature. Commitment can result from either dedication (affective commitment) or constraints (calculative commitment) (Fullerton 2005; Gustafsson, Johnson, and Roos 2005). Mobile content is offered via teleoperators' networks and therefore requires a contract with a teleoperator. There are several ways to pay for content. It can be paid after use, if the user has a contract with the provider. In that case the content will be invoiced on a monthly phone bill (post-paid). Another alternative is to use pre-paid cards, or to pay for a monthly contract that allows use without limits or a certain amount of content for free. The pre-paid contracts, which make it more difficult to change content provider, can be seen as indicators of calculative commitment. Nevertheless, calculative commitment may not guarantee continuous use. Bendapudi and Berry (1997) suggest that constraint-based relationship maintenance can lead only to staying in the relationship, but dedication-based relationship maintenance leads, at best, to affective commitment and enhancement of the relationship. Therefore, attention in the literature is mostly given to affective commitment.

Commitment is usually defined as "the extent to which an exchange partner desires to continue a valued relationship" (Moorman, Zaltman, and Deshpandé 1992). In this study, commitment refers to "a buyer's enduring desire to continue a relationship with a seller accompanied by his willingness to make efforts at maintaining it" (Odekerken-Schröder 1999, p-64). A similar definition has been used e.g. by Morgan and Hunt (1994). In the mobile

context, this means that the users are attitudinally committed to using the same provider on a continuous basis, regardless of whether they have an existing contract with the provider or not.

Intentions to Use Provider and Mobile Channel

The effect of different channels on customer relationships is still an insufficiently researched area (Bolton, Lemon, and Verhoef 2004). Little is known about how the use of a mobile channel influences commitment and intentions to use the same content provider. Reichheld and Schefer (2000) argue that serving customers consistently over the same channel (Internet) will result in lock-in effects. This effect may influence the length of the customer relationship with the service provider, and may therefore promote continuous use of the same channel. Verhoef and Donkers (2005) also state that the acquisition channel is an important predictor of customer retention, the Internet performing better than direct mail for customer retention purposes. The mobile channel may perform even better for relationship-building purposes, because the mobile device is a personal gadget enabling instant access to services, as well as

personalized communication with the content provider.

Channel-specific research further asserts that utilitarian value influences consumer channel purchase frequency behaviour across brick and mortar, catalogue and Internet channels (Noble and Griffith 2005). Mathwick, Malhotra, and Rigdon (2002) discovered that certain channels support goal-directed tasks, whereas others work for experiential tasks. Since information-based MMS can be considered both goal-oriented and experiential, the author analyzes the influence of both utilitarian and hedonic value perceptions on commitment and intentions to use.

The research model presented in Figure 3 illustrates the hypothesized relationships between the constructs described above. The hypotheses will be presented next.

Influence of Utilitarian and Hedonic Value Perceptions on Commitment and Intentions to Use

Both hedonic and utilitarian factors are expected to positively influence use behaviour (Meuter, Ostrom, Roundtree, and Bitner 2000). Hedonic value is expected to primarily

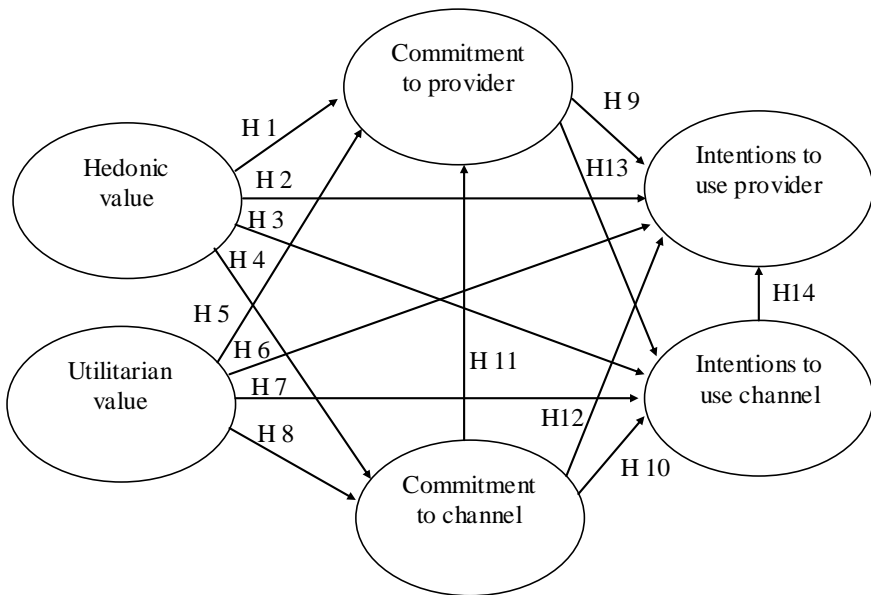


Figure 3. The Research Model and Hypotheses

influence commitment, because commitment is based on an affective evaluation. Chaudhuri and Holbrook (2001) report findings where hedonic value has a positive influence on brand affect. Moreover, Pura (2005) reports that commitment was found to be mostly influenced by emotional value which is usually defined as the hedonic motivation to behaviour. Furthermore, the influence of commitment on continuous use is expected to be stronger for organizations offering hedonic value than those offering utilitarian value propositions (Bolton, Lemon, and Verhoef 2004). Supporting findings for the differing effect of hedonic and utilitarian value has also been reported by Pura (2005). She postulates that in a mobile location-based service context, behavioural intentions are mostly influenced by monetary value and convenience value, both of which may be considered utilitarian motivations. Because hedonic value – the effect of emotions – has recently received much attention also in technology-oriented research, the direct effects of hedonic value on intentions to use the channel and the provider are also tested.

H 1 Hedonic value has a direct, positive effect on commitment to the content provider

H 2 Hedonic value has a direct, positive effect on intentions to use the content provider

H 3 Hedonic value has a direct, positive effect on intentions to use the mobile channel

H 4 Hedonic value has a direct, positive effect on commitment to the mobile channel

H 5 Utilitarian value has a direct, positive effect on commitment to the content provider

H 6 Utilitarian value has a direct, positive effect on intentions to use the content provider

H 7 Utilitarian value has a direct, positive effect on intentions to use the mobile channel

H 8 Utilitarian value has a direct, positive effect on commitment to the mobile channel

The Influence of Commitment on Intentions to Use

Commitment has been found to be one of the key drivers of intentions to buy (Hennig-Thurau, Gwinner, and Gremler 2002). However, Bolton, Lemon, and Verhoef (2004) suggest a contrasting proposition that affective commitment may not influence actual mobile service use. Their assumption is based on the reasoning that customers committed to a mobile phone supplier are not necessarily going to use the phone more often than those who are not committed to use that supplier. Nevertheless, if we differentiate between commitment to the mobile channel and to the content provider, it is expected that commitment to the channel will have a positive influence on intentions to use it, and that commitment to the content provider results in higher intentions to use the same content provider again. Previous research also supports these relationships. For example, Morgan and Hunt (1994) postulate that if customers are committed to a supplier, they are likely to buy additional services from the same provider versus other competitors. It can be expected that the positive influence of commitment on behaviour is significant both with regard to the mobile channel and the content provider. For example, Sweeney and Morrison (2004) assert that when technology is properly used, it can facilitate relationship commitment between customer and company. A positive link has also been suggested between commitment and relationship duration, i.e. the frequency of use of services increases the customer share over time (Verhoef 2003).

Previous research has not differentiated between commitment and intentions to use the channel or the provider. However, the established positive relationships between perceived value, commitment and intentions to use the same organization (content provider), product, service or brand are expected to apply also to the mobile channel (technology). It has also been shown that commitment leads to purchase intentions (Bloemer and Odekerken-

Schröder 2003; Garbarino and Johnson 1999; Morgan and Hunt 1994).

H 9 Commitment to the content provider has a direct, positive effect on intentions to use the content provider

H 10 Commitment to the mobile channel has a direct, positive effect on intentions to use the mobile channel

The Cross-Influence between Mobile Channel and Content Provider

Technology-mediated service channels are generally found to contribute to favourable intentions to use, if they perform satisfactorily, irrespective of service type (Van Birgelen, de Jong, and de Ruyter 2006). Thus, the author proposes that customers, who consider the mobile channel to be their first choice for accessing services, feel loyal also to the service provider offering these services. It is expected that after having used mobile services for a certain task, the probability of using the same provider also in the future for the same or different task increases. In fields where customers choose from the channel offerings of a single service provider, using multiple channels (online and personal service) tends to broaden the customer's exposure by giving access to the service provider, by positively influencing the use of the online channel again in the future, and by increasing the overall satisfaction in a multi-channel environment (Montoya-Weiss, Voss, and Grewal 2003). Van Birgelen, de Jong, and de Ruyter (2006) further posit that through the electronic channels, a service provider can make personalized service offerings and facilitate additional use of face-to-face service in non-routine situations. Therefore, it is expected that commitment to the provider also has a positive effect on future use intentions of the mobile channel. Similarly, it is expected that commitment to the mobile channel will increase intentions to use the same service provider in the future.

H 11 Commitment to the mobile channel has a direct, positive effect on commitment to the content provider

H 12 Commitment to the mobile channel has a direct, positive effect on intentions to use the content provider

H 13 Commitment to the content provider has a direct, positive effect on intentions to use the mobile channel

H 14 Intentions to use the mobile channel has a direct, positive effect on intentions to use the content provider

METHOD

Background of the Case Company's Field of Business and the MMS Content Offered

In the real estate business, the mobile services offered to the wide end-user audience currently comprise of multimedia information of available apartments and houses for sale and rent. Pictures, floor plans, maps and information can be accessed with mobile devices that have picture-messaging capabilities. The major real estate agencies in the focal market offer such mobile content services. Some also offer an alert service that sends the information and a picture of the apartment that meets the search criteria as a multimedia message to the customers' mobile devices. Nevertheless, in this business field the wide audience is still reached mainly through newspaper advertising. However, the mobile channel has a strategic supporting role in attracting new customers, and serving the current customers better through multiple channels.

Huoneistokeskus Oy is a Finnish real estate agency offering services for people interested in selling, buying or renting apartments. Their services can be accessed by visiting an office, by phone, via the Internet and recently also via mobile handheld devices. Customers can use three types of services by sending an SMS code to the company number: 1) Order a multimedia message to their mobile device. As a result, the customer receives a multimedia message that includes a floor plan, picture of the apartment, price and other relevant information as well as the agent's contact information. 2) Order an eBrochure to their e-mail address. The A4 format pdf file includes pictures and all relevant information about the apartment. 3) Request an agent to contact them. The customers' contact information and request is delivered automatically to the right agent.

The electronic medium has changed the real estate market, and is today seen as a competitive necessity and a potential strategic differentiator within the industry. The electronic environment makes it easier for customers to compare alternatives and access information, photos and floor plans to support their decision-making. In addition, virtual self-services improve and speed up the customer search experience and offer companies cost efficiencies (Aalberts and Townsend 2002). As customers can access the information easily and effectively, the real estate agent's role is becoming more consultative (Muhanna and Wolf 2002). Furthermore, agents that provide services via the electronic channels can lower brokerage fees and gain market share (Mullaney 2004).

Moreover, electronic services in the real estate market may serve as an effective customer acquisition tool, since information-rich content attracts potential customers to use real estate agents' services. The sales process in this market begins before the customers are identified, as people tend to perform preliminary searches prior to contacting the agent (Henderson and Cowart 2002). Some studies even claim that people using the Internet to search for homes utilize real estate agents more than non-Internet users (Muhanna and Wolf 2002). Internet services are often aimed at delivering mass communication of standardized information and facilitating effective search experiences. The mobile channel offers opportunities for more customized home-specific information and enhanced interactivity between the real estate agent and customer.

While using the mobile content, the wide audience end-users usually access the content either via mobile portals or network operators' menus that offer a wide range of content and services. In this case, they access the MMS content by ordering it directly from the content provider, the real estate agent. However, even in this case the mobile content value chain comprises a large number of players, and requires co-operation between e.g. the handset device manufacturer and software supplier, network operator, content and service provider, and the end user (Feldmann 2005).

Research Sample

The data was collected using an online questionnaire targeted at end-users of the case company's mobile services in May 2004. Invitations were targeted at mobile MMS content users by placing the invitation at the end of the ordered mobile multimedia message, as well as on the website. The sample analyzed in this paper consists of 108 respondents. The data were screened for those who had experience of using the real estate agency's mobile services, which was a prerequisite for being able to answer the questions. 23 percent of the respondents were male and 77 percent female, which corresponds with the user profile of the case company's online and mobile clientele. In general, females tend to be more active in viewing apartments than males. The age of the respondents ranged from 18 to 65 years. The mean age of the respondents was 36 years. 41 percent of the respondents earn between 20,000 and 30,000 euros per year (before taxes), which is considered middle-class income. The mean income in Finland was 18,500 euros when the study was conducted (Statistics Finland 2006). The respondents were not experts of new technology; most of the respondents rated their mobile service user experience as 'moderate'.

Operationalization of Research Variables

The items used to measure the constructs are summarized in Appendix 1. Utilitarian value was measured by items reflecting extrinsic motivation that enables effective achievement of an utilitarian task (van der Heijden 2004). These include good value for money (Chen and Dubinsky 2003; Sweeney, Soutar, and Johnson 1999), acceptable price (Dodds and Monroe 1991; Sweeney and Soutar 2001), and value for money compared to other channels. Furthermore, utilitarian aspects include the ease and speed of mobile service use compared to other channels, and convenience of mobile service use (Anderson and Srinivasan 2003). Thus, utilitarian value also incorporates the relative advantage concept used by Rogers (1995) (Chin and Gopal 1995).

Hedonic value was measured by items that describe intrinsically motivated service

use, for the sake of the experience, without a specific goal in mind. Therefore, hedonic items included both enjoyment of use (van der Heijden 2004) and social value items. In this study, social value is defined as a hedonic construct, because it is similar to emotional value (Sheth, Newman, and Gross 1991). The emotional and social items were modified from PERVAL scale items created by Sweeney and Soutar (2001). Emotional value depicts positive emotions or affective states that are generated by service use. Social value describes social approval or enhanced social self-concept generated by service use. In the marketing literature, emotional and social aspects of value have been traditionally measured as separate constructs (Sweeney and Soutar 2001) and therefore items measuring both were included. Thus, in this study, hedonic value depicts the emotional and fun aspects of use experience, as well as the social situations where people can impress their friends and family by using MMS content.

Measures of commitment and behavioural intentions towards the mobile channel do not exist in the previous literature. Therefore, they have been created based on the items measuring commitment and behavioural intentions towards the organization (Baloglu 2002; Dodds and Monroe 1991; Garbarino and Johnson 1999; Mathwick, Malhotra, and Rigdon 2001; McMullan and Gilmore 2003; Odin, Odin, and Valette-Florence 2001; Zeithaml, Berry, and Parasuraman 1996) and the affective commitment measures of Fullerton (2003). Behavioural intention measures regarding the content provider were adopted from the loyalty literature (Gremler and Gwinner 2000; Mathwick, Malhotra, and Rigdon 2001; Taylor and Baker 1994; Zeithaml, Berry, and Parasuraman 1996).

All the variables are reflective measures. Attitude-based factors, such as purchase intentions and commitment, are typically reflective, since they give rise to something that is observed (Jarvis, MacKenzie, and Podsakoff 2003). The measurement items were developed and tested using concept tests, expert interviews, a pilot questionnaire test, and purified using exploratory factor analysis before the analysis reported next.

ANALYSIS AND RESULTS

The partial least squares (PLS) approach using PLS-Graph 3.0 was used to estimate the measurement and the structural parameters in the structural equation model. PLS is used increasingly in information systems and management literature (Chin and Todd 1995; Gefen, Straub, and Boudreau 2000). It is suitable for small samples and does not require multivariate normal data (Chin 1998). PLS is also well suited for exploratory analysis, because it does not necessarily require a solid theoretical base (Gefen, Straub, and Boudreau 2000).

Assessment of the Measurement Model

Exploratory factor analysis (with principal component analysis) was conducted in order to purify the measures and to ensure that the items measured what they were supposed to measure. The Kaiser-Meyer-Olkin measure of sampling adequacy was good (.822) and a Bartlett's test of sphericity was significant. The Oblimin rotation gave the best solution which resulted in a clearly identifiable six-component solution depicting two value categories, two commitment categories and two intentions to use categories. Commitment and intentions to use items were clearly divided into two groups representing: 1) content provider and 2) mobile channel. Therefore, measuring the effect of commitment and behavioural intentions on continuous use separately for the content provider and the mobile channel is justified.

The perceived value items loaded on two components representing utilitarian value and hedonic value constructs. The resulting factors are: 1) Utilitarian value 2) Hedonic value, 3) Commitment to provider 4) Intentions to use provider 5) Commitment to channel and 6) Intentions to use channel. All factor loadings were above .63. The measurement items applied are reported in Appendix 1.

Reliability and Validity Tests

The reliability, convergent validity and discriminant validity were examined with PLS for the measurement items used in the study. Reliability was assessed using composite scale reliability and average variance extracted

(AVE). Correlations and square root of AVE are reported in Table 1. The independent constructs, their reliability and AVE, as well as the weights and loadings for each measure, are reported in Table 2.

Discriminant validity was assessed by comparing the AVEs with the square of the correlations. Since the square root of each AVE value is greater than the off-diagonal elements in Table 1, discriminant validity is

also considered good (Fornell and Larcker 1981). Scale reliability ranged between 0.94 and 0.88, exceeding the cut-off value of 0.7. AVE ranged between 0.87 and 0.72, exceeding the cut-off value of 0.5. Convergent validity of the constructs was evaluated by checking the factor loadings of the measures on their respective constructs. Since individual item loadings are all greater than 0.7, they are considered adequate.

Table 1. Correlations and average variance extracted (AVE) of latent variables

CONSTRUCT	(1)	(2)	(3)	(4)	(5)	(6)
(1) Utilitarian value						
(2) Hedonic value	.369**					
(3) Commitment to provider	.148	.518**				
(4) Intentions to use provider	.359**	.369**	.464**			
(5) Commitment to channel	.381**	.377**	.101	.229*		
(6) Intentions to use channel	.635**	.388**	.106	.305**	.571**	
square root of AVE	.849	.854	.933	.877	.872	.894

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 2. Reliability, AVE, Weights and Loadings of the Variables

CONSTRUCT	SCALE RELIABILITY	AVE	ITEM	WEIGHT	LOADING
Utilitarian value	.94	0,72	U1	0.1683	0.8483
			U2	0.1839	0.8509
			U3	0.1404	0.7685
			U4	0.2253	0.8443
			U5	0.2292	0.8885
			U6	0.2276	0.8741
Hedonic value	.93	0,73	H1	0.2284	0.8453
			H2	0.2523	0.8824
			H3	0.1983	0.8540
			H4	0.2529	0.8632
			H5	0.2391	0.8225
Commitment to provider	.93	0,87	CP1	0.5273	0.9295
			CP2	0.5457	0.9343
Intentions to use provider	.87	0,77	UP1	0.7751	0.9661
			UP2	0.3211	0.7823
Commitment to channel	.91	0,76	CC1	0.3911	0.7931
			CC2	0.3761	0.9254
			CC3	0.3828	0.8930
Intentions to use channel	.92	0,80	UC1	0.3210	0.8659
			UC2	0.3972	0.9327
			UC3	0.3983	0.8827

Assessment of the Structural Model

First, a saturated model based on the proposed theoretical hypotheses was tested. Second, an alternative final model with only significant relationships was estimated. The results of the final model in Figure 4, as well as the non-significant hypothesized relationships, are discussed in more detail below. Hypotheses 2, 3, 5, 6, 11, 12, 13, and 14 were not significant in this sample, as indicated in Table 3.

The hypothesized relationships between hedonic value and intentions to use the mobile channel or the content provider were positive but insignificant, as were the relationships between utilitarian value and commitment to the content provider, as well as intentions to use the content provider. None of the hypothesized cross-effects between the mobile channel and content provider were significant in this study. This may be due to the nature of the real estate business, or it may indicate that users of MMS services might use mobile services of many providers and do not necessarily consider this service provider the first choice in further service provider decisions.

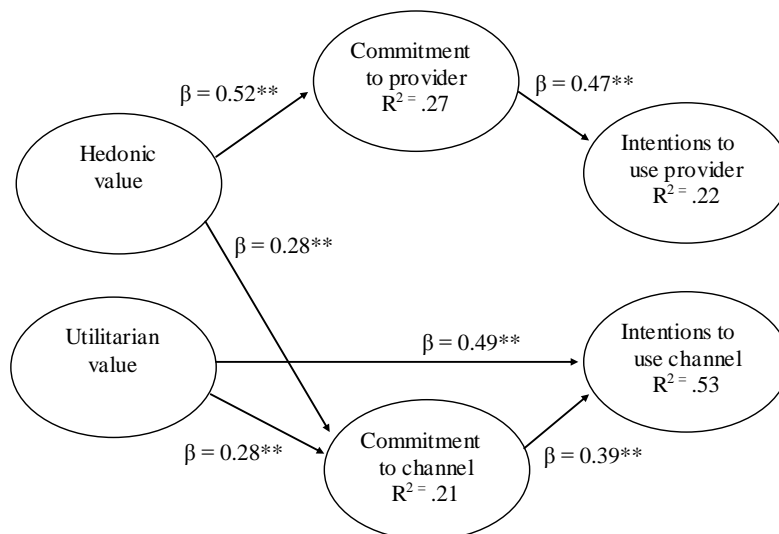
After testing this proposed saturated model, the insignificant paths were omitted from the final alternative model as suggested by Gefen, Straub, and Boudreau (2000). Figure

4 presents the structural results of the final alternative research model with significant paths. The multiple R^2 values given for each dependent construct are reported in Figure 4. The R^2 values indicate the fraction of total variance in a dependent construct that is accounted for by the independent constructs impacting it. All the structural paths in the model have significant t-values at $\alpha = 0.01$ (estimated by a bootstrapping procedure using 1000 samples). The loadings for all constructs are significant at a $\alpha = 0.01$ level.

The results shown in Figure 4 indicate that hedonic value perceptions have a strong influence on both commitment to content provider ($\beta=0.52$) and commitment to mobile channel ($\beta=0.28$). Utilitarian value perceptions also influence commitment to mobile channel ($\beta=0.28$), and intentions to use the mobile channel ($\beta=0.49$). These relationships result in R^2 of 0.27 for commitment to content provider and R^2 of 0.21 for commitment to mobile channel. Intention to use the same content provider is influenced by commitment to the provider ($\beta=0.47$), which results in a R^2 of 0.22 for intentions to use the provider. In addition, intentions to use the mobile channel are also influenced by commitment to the mobile channel ($\beta=0.39$) resulting in a R^2 of 0.53 for intentions to use the mobile channel. Hence, hypotheses 1, 4, 7, 8, 9, and 10 were supported.

Table 3. Overview of the Results

NO	HYPOTHESIS	RESULT
H 1	Hedonic value -> commitment to content provider	Supported
H 2	Hedonic value -> intentions to use content provider	Not supported
H 3	Hedonic value -> intentions to use mobile channel	Not supported
H 4	Hedonic value -> commitment to mobile channel	Supported
H 5	Utilitarian value -> commitment to content provider	Not supported
H 6	Utilitarian value -> intentions to use content provider	Not supported
H 7	Utilitarian value -> intentions to use mobile channel	Supported
H 8	Utilitarian value -> commitment to mobile channel	Supported
H 9	Commitment to content provider -> intentions to use content provider	Supported
H 10	Commitment to mobile channel -> intentions to use mobile channel	Supported
H 11	Commitment to mobile channel -> commitment to content provider	Not supported
H 12	Commitment to mobile channel -> intentions to use content provider	Not supported
H 13	Commitment to content provider -> intentions to use mobile channel	Not supported
H 14	Intentions to use mobile channel -> intentions to use content provider	Not supported



Note: ** path is significant at the 0.01 level.

Figure 4. Results of the Final Research Model.

Commitment as a Mediator between Value Perceptions and Intentions to Use

Commitment was found to have a significant, positive, direct influence on intentions to use. In addition, it has a positive mediating effect between hedonic value and intentions to use, both for the channel and for the provider, and also between utilitarian value and intentions to use the channel. The analysis of the mediation was conducted in PLS by first estimating the whole final model, second solely the direct effects in the model, and third the indirect effects in the model. The effect size ($f^2 = 0.029$) between the final model and the model with only direct relationships indicates that the additional indirect paths in the final model have a small (>0.02) effect and should be included (Gefen, Straub, and Boudreau 2000). Furthermore, since the direct relationship between hedonic value and channel intentions becomes insignificant when commitment to the channel is added to the model, the effect of hedonic value on intentions to use the channel is considered to be completely mediated by commitment. However, the relationship between utilitarian value and intentions to use the channel becomes smaller but stays significant after adding the commitment to the channel construct into the model. Therefore, as suggested by Baron and Kenny (1986), the

effect of utilitarian value on intentions to use the channel is considered to be partially mediated by commitment to the channel. The same applies for the effect of hedonic value on intentions to use the provider that is partially mediated by commitment to the provider.

DISCUSSION

The results of this study bring important additional insights with regard to commitment to use the same service provider, regardless of the technology or channel used. A notable finding is that intentions to use the same provider were influenced directly by commitment to the service provider and indirectly by hedonic value perceptions. This can be seen as the main contribution of the study, because the role of commitment has not been widely acknowledged in TAM theories. In addition, previous studies in the mobile field mainly emphasize convenience value of mobile service use compared to other channels. Furthermore, the results of this study emphasize that in effect, hedonic aspects of a fun, enjoyable use experience promote best commitment both to the provider and to the mobile channel as such.

Commitment theories proposed in this study add to the theory development in the mobile field by taking into account the

attitudinal commitment towards the provider and the channel. Commitment was in this study defined as an attitudinal construct, commitment to use the mobile channel or the same service provider, regardless of channel choice, again in the future. This type of emotional attachment to the service provider, or new technologies as such, seems to play an important role in explaining behaviour in the mobile service context (Pura 2005). Commitment also captures positive feelings and is considered an affective construct. In contrast to the constructs used in TAM models, it includes feelings of attachment to the provider or channel and willingness to keep them as users' first choice compared to alternatives in the future. Previous attitudinal measures in TAM models have emphasized general attitudes towards behaviour (Venkatesh, Morris, Davis, and Davis 2003). Attitude towards behaviour has previously been defined as "an individual's positive or negative feelings about performing the target behaviour" (Davis 1989; Fishbein and Ajzen 1975; Taylor and Todd 1995). Affect has been defined similarly as an individuals' liking of the behaviour (Venkatesh, Morris, Davis, and Davis 2003). These attitudes or affect have in previous TAM models mainly been relative to systems, software or technology, and not related to the provider organization.

One reason why commitment to the content provider organization has received so little interest in previous IS literature may be that the TAM theories were originally developed in an inter-organizational setting, where the user cannot select between different service providers. Another reason may be that TAM theories are primarily focused on analyzing adoption behaviour of technology and attracting potential users, instead of evaluating continuous use of content. Hence, alternative theoretical models are needed in order to truly recognize how continuous use of MMS content could be enhanced. As Karahanna (1999) suggests, the factors influencing trial use and continuous use may vary. Recognizing what explains intentions of continuous use of the same service provider, regardless of the preferred channel, requires acknowledging the role of the organization providing the mobile content, as is done in this

study. Thus, this study uses commitment theories that have been found to influence purchase behaviour of services and brands and choice of providers from a wide audience perspective.

In this study, commitment was found to be an important mediator between value perceptions and intentions to use. In technology-oriented studies, attitude towards technology is often reported as a mediator between usefulness and intentions to use technology. Since both commitment and attitude towards technology are considered affective constructs, these results are similar to results found with TAM studies. Moreover, in this study utilitarian value influenced the intentions to use the mobile channel, i.e. technology as such, both directly and indirectly, via commitment to the channel. The influence of utilitarian value on commitment to channel is in line with TAM study results that attitude towards technology is mostly explained by the usefulness of the technology (Nysveen, Pedersen, and Thorbjørnsen 2005).

However, most importantly, in contrast to earlier studies that emphasize usefulness aspects, the results of this study indicate that utilitarian value perceptions do not significantly influence intentions to use the same provider. The utilitarian aspects tend to affect choice of which channel or technology to use, and may be communicated to promote trial use of services, but they do not necessarily enhance continuous use of the content. The lack of influence of utilitarian value on commitment and intentions to use the same service provider indicates that good value for money compared to other information channels, the convenience and ease of using the mobile service, and instant delivery of information and pictures have little importance for users, when they consider which service provider to use. This is an important finding for companies struggling with increasing average revenue per user.

Furthermore, building continuous relationships with the users requires understanding of the value that the mobile content generates also during and after the use experience, and how commitment to the content provider can be built. For this purpose,

this study used an approach commonly used both in marketing and IS literature, differentiating between utilitarian and hedonic value. Social value related to mobile content use was incorporated in the hedonic value construct, offering a wider view of value than the extended TAM models.

The results of this study indicate that intentions to use the same provider in the future are mostly explained by commitment to provider. Therefore, it should be taken into account in a wide audience end-user context. Building long-term relationships with the mobile content users is crucial for providing attractive and profitable mobile content services in the future. Even though customers may not care whose services they use at the moment, long-term goals should include building commitment also to the provider. This would also ease the task of providing services via multiple channels, not just via the mobile channel. Previous research also indicates that adding an MMS channel to the main distribution channels strengthens customer loyalty and helps providers to interact with their customers (Nysveen, Pedersen, Thorbjørnsen, and Berthon 2005). Furthermore, the increasing number of electronic channels available also requires analysis of users' commitment to using a specific channel, in this case the mobile channel compared to other alternative channels. Therefore, we suggest that theories analyzing behaviour in the mobile field should include both customers' preferences for the content provider and for the channel used, in order to be better able to predict behaviour in the long run.

MANAGERIAL IMPLICATIONS

According to Watson, Pitt, Berthon, and Zinkhan (2002), mobile services are important for companies' success. However, understanding what drives intentions to use mobile services in the long run is of vital importance for service developers and marketing managers. Creating profitable services requires a committed wide audience that not only prefers to use the mobile channel for accessing services but also chooses the same content providers' services in the future.

Marketing managers should acknowledge the hedonic and utilitarian aspects influencing intentions to use the mobile channel and the service provider, when considering how to communicate about new or current services to potential users. Even in information-based services that aim at fulfilling a certain task effectively, such as mobile content in the real estate business, the effect of hedonic aspects of service use seems to be of great importance in creating commitment to the provider and the electronic channels as such. Multimedia and pictures add to the hedonic, fun experience, pleasure and social approval gained by mobile content use. These elements may be emphasized to support the long-term goals of building a committed customer base.

The automatically delivered information, pictures and maps ease the task of the agent in matching the needs of buyers and sellers in the real estate market, and enable them to concentrate on their expert role and personal selling that is regarded crucial in making once-in-a-lifetime type decisions, such as buying a house. The Internet is a popular channel for searching for apartments, but it may not serve the customer best in all situations. Mobile services are often seen as supplementary services that offer great possibilities for customized communication. Even though the small screen size of the mobile device may not be optimal for viewing apartment pictures, it is a convenient way of showing the pictures and floor plans to others and carrying the information with you. Multimedia services provide new opportunities to help customers manage the search process effectively and compare alternatives with the help of pictures and maps.

The role of the mobile services in real estate agents' service mix is emerging around the world, but so far the mobile services offered are not differentiated between competing real estate agents. However, the strategic value of the mobile services may increase as companies realize the full potential of serving specific customer segments effectively via the mobile channel. In accordance with earlier research on Internet-based real estate services, mobile services may attract especially buyers, sellers and renters of

houses and apartments who are first thinking about contacting an agent, and who screen the possibilities to get an idea of the current market situation. With relationship-building goals in mind, house- or apartment-specific agent information offered should also facilitate more convenient instant interaction with the right agent and help the customer find the location easily.

However, adding new channels to the service offering incurs costs, and in order to offer profitable services, the target audience should be wide enough to be able to reach the critical mass, and facilitate sufficient average revenue per user (ARPU) or average margin per user (AMPU) (Group 2003; Kuo and Yu 2006). Nevertheless, in a mobile commerce context, people are not necessarily bound to a content provider with a contract, and they can order services directly from any content provider that supports their mobile teleoperator. Companies are beginning to realize the importance of creating long-lasting customer relationships and differentiating their image. Attracting the right kind of customers is crucial in order to survive the increasing competition in the field. In this respect, it is important to realize that users of mobile services tend to be committed to using the mobile channel for different tasks.

The most lucrative user segment of these services might be the people who use their mobile device actively and use a variety of mobile services. Therefore, marketing strategies should acknowledge the channel-specific behaviour of current and potential customers. Lee (2002) encourages companies to identify individual customers' preferred channels for different services and building relationships utilizing technological innovations. Her research in the electronic banking field indicates that people may prefer different channels for doing different tasks. In addition, previous research shows that technologically savvy customers are not more committed to using electronic self-services than others (Sweeney and Morrison 2004). Other studies suggest that Internet users are not more likely to engage in mobile shopping than non-Internet users (Bigne, Ruiz, and Sanz 2005). Therefore, we propose that current customers who primarily use Internet search

services may not prove to be any better target audience for MMS content than totally new potential customers. Instead, marketing strategies could aim at identifying potential customers who are most likely to prefer the mobile channel for accessing apartment-related information.

CONCLUDING REMARKS

This study used commitment theories to explain intentions to continuous use of MMS. The results indicate that building a loyal wide audience customer base that uses the content offered by the same service provider also in the future requires commitment to the content provider. In order to stay committed, users should also perceive the MMS content valuable. The results of this study show that commitment can be enhanced by offering hedonic use experiences that include both emotional and social value propositions. These findings contribute to previous technology-oriented literature by increasing understanding of what influences commitment to and intentions to use the same content provider in the mobile field. In this respect, utilitarian aspects or usefulness of the content seems to have little influence compared to hedonic elements. The paper also contributes to the services marketing field by exploring how value propositions influence commitment and intentions to use the mobile channel or technology as such, if several alternative distribution channels are available. These results support the empirical findings of TAM models, indicating that both utilitarian and hedonic value perceptions have a positive effect on intentions to use the mobile channel, i.e. technology as such. In conclusion, the combined view including both customers' preferences for the content provider and the channel used is necessary for exploring further how to increase continuous use and revenue per user in the mobile field.

Limitations of the Study and Suggestions for Further Research

The use of MMS is based on self-estimated intentions to use. If historical real usage data and rate of return of customers are available, more sophisticated measures could be used to estimate the real use and anticipated customer lifetime value of users. In addition,

the heterogeneity in different customer segments could be taken into account while estimating the future value of the customer segments (Fader 2005). Unfortunately, these measures are rarely available for the content providers in this field. Therefore, it is common to use self-reported intentions to use the technology or service measures to predict use in both marketing and the IS field.

Future research is encouraged to test the model of this study in other mobile service contexts across industries to ensure generalizability. Finding an apartment or house is typically a service that is used actively a few times in a customer's lifetime, and during that process users may use several providers' services simultaneously. Therefore, commitment to use the same provider again may be low, based on this special characteristic of the field in this study. Similarly, the cross effects between channel and provider may be insignificant in this study due to the nature of the industry, where self-service channels are used typically before personal contact with the agency. Thus, the influence of commitment and behavioural intentions to use the same content provider and the cross effects between channel and provider could be analyzed further in other mobile

service contexts, in order to see whether these results are industry-specific or apply for a wider selection of mobile multimedia services.

Furthermore, even though MMS is widely used in the real estate business field in Finland, the service may not be common in other markets. Future research could explore the demand for similar MMS content targeted at wide audience end-users in other, less mature mobile markets, where the devices base allows reading multimedia content, but where users do not yet widely use mobile Internet. In more mature markets, it would be interesting to explore whether users prefer to access customized BtoC multimedia content according to customers' preferences and location to more traditional mass communication of the real estate search engines offered via the Internet.

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^[1] MMS is the evolution of Short Message Service (SMS) (SMS is a text-only messaging technology for mobile networks). With MMS, a mobile device is no longer confined to text-only messages. It can send and receive multimedia messages such as graphics, video and audio clips, and so on. It has been designed to work with mobile packet data services such as GPRS and 1x. (Wikipedia 2006)

APPENDIX 1: THE MEASUREMENT ITEMS

CONSTRUCT	ITEM
Utilitarian value	U1 The price of this mobile service is acceptable (a)
	U2 This mobile service is good value for money (a)
	U3 This mobile service is better value for money than what I would pay for the same service via other channels (internet / store). (a)
	U4 I value the ease of using this mobile service (a)
	U5 I value the possibility to use this service instantly via my mobile device (a)
	U6 I value the convenience of using this mobile service (a)
Hedonic value	H1 Using this mobile service helps me to feel accepted by others (a)
	H2 Using this mobile service makes a good impression on other people (a)
	H3 Using this mobile service gives me social approval (a)
	H4 Using this mobile service gives me pleasure (a)
	H5 Using this mobile service makes me feel good (a)
Commitment to provider	CP1 I feel loyal to this <i>service provider</i> (a)
	CP2 I am emotionally attached to this <i>service provider</i> (a)
Intentions to use provider	UP1 Next time, when I need this type of service, I will choose this <i>service provider</i> (a)
	UP2 I intend to continue using services of this <i>service provider</i> also in the future (a)
Commitment to channel	CC1 I consider the mobile channel my first choice to order this type of service (a)
	CC2 I am a loyal user of mobile services (a)
	CC3 Mobile services have a great deal of personal meaning for me (a)
Intentions to use channel	UC1 Next time, when I need this type of service, I will order it again via the mobile device (b)
	UC2 I will use similar mobile services more frequently in the future (b)
	UC3 The probability that I will order this service next time via the mobile channel is (c)

a 7 point Likert scale was used:

a) 1= totally disagree...7=totally agree b) 1= Not at all likely... 7=extremely likely c) 1= very low... 7 = very high

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