

# Measuring Loyalty to Mobile Services

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## Abstract

Customer loyalty has been recognised as an important driver of company profitability. In the electronic environment the importance of attracting loyal, profitable customers is essential, because the acquisition costs are even higher than in traditional business. The wireless environment offers all kinds of companies possibilities to serve their committed customers independent of time and place and strengthen the customer relationships with supporting mobile services or wireless marketing communication. A key challenge is how to identify loyal customers and keep them loyal in the mobile environment. Therefore, it is important to develop accurate measures for loyalty that identify the characteristics of customer loyalty in a new wireless environment that takes into account the context based nature of mobile service usage situations as well as attitudinal loyalty towards a brand and commitment to the service provider. So far, traditional loyalty measurement scales have not been tested in the mobile service context and modifications are needed. This study explores the nature of loyalty to mobile services and suggests a scale for measuring it.

## 1. Introduction

”Where, in the past, customer loyalty was just one weapon to use against competitors, today it has become essential to survival” [29] p.179].

It has been suggested that customers are less loyal in electronic environments, because it is easier to find information about competing products and companies. Research has shown that in the electronic environment it is more expensive to acquire new customers than in the traditional environment. In addition to customer acquisition costs, customers tend to choose well known brands that they trust [30] [29]. It also seems that after people become more experienced in using the Internet they concentrate the visits to just a few websites. In the mobile environment switching from one service provider to another is considered easy and building customer relationships is challenging. Nevertheless, electronic environment is supposed to have a tremendous potential for creating customer loyalty, because of the possibility of provision of quality information and standardisation of firm-customer interaction. [15] Currently, mobile services are offered mostly by tele operators. However, the

wireless environment offers all companies new opportunities to strengthen their customer relationships with the means of supporting mobile services or wireless marketing communication.

The importance of customer loyalty for company profitability is widely accepted. Customer loyalty is believed to accumulate revenues and to lower the costs of serving customers [16] [28] [11] [10]. Companies should target customers that are likely to do business with the firm in the long run and they should earn customers’ trust by offering consistently superior service experiences [28] [30]. Building a loyal customer base requires investments and is profitable only when customer relationships last long enough to cover the costs of relationship building (identifying customers’ needs, customising offerings, monitoring performance). Companies can benefit from identifying the customers that are most willing to maintain a relationship. [5] A key challenge is thereby to identify the potentially loyal customers and understand how loyalty can be enhanced.

Mobile services are relatively new to most customers in many markets and many are trying these services for the first time. It is important to examine the determinants of customer loyalty in order to enhance it and build sustaining customer relationships by offering positive experiences to the right customers from the beginning. There is a lack of empirical research on the concept of loyalty in a mobile service context. Most empirical research on electronic services has focused on the Internet, whereas mobile services have received less attention. So far, surveys have mainly tested the willingness of respondents to adopt certain mobile services [27] [1]. There is a lack of empirical research that considers loyalty to mobile service providers or brands that takes into account the context based nature of mobile service usage. The measures need to be developed further in order to capture the attitudinal loyalty towards a service and commitment to the service provider. In-depth studies of the nature of loyalty in mobile services from a customer’s point of view are necessary to advance research in electronic services in general, and more specifically to enable customer-oriented development of mobile services as well as loyalty enhancing relationship marketing.

## 2. Aim of the study

The aim of the study is to explore the nature of customer loyalty to mobile services and to suggest a scale for measuring it.

## 3. Mobile Services

The mobile phone is nowadays used for many more purposes than just a communication device as mobile content and entertainment services are developed further. U.S. currently lags behind Japan and Western Europe in terms of mobile data usage, but all in all prospects for mobile services seem positive in the future. Ovum projects that by 2007 world-wide revenues generated from mobile services (information & entertainment) will rise from USD 16.7 billion in 2003 to total USD 77.8 billion in 2007. [31] Most potential is seen in mobile commerce, location based services and entertainment. [19]

Current mobile services are offered for example by tele operators, mobile portal owners, mobile service providers as well as companies offering their customers supporting services via the mobile phone. Usually, services can be accessed regardless of which tele operator the customer uses. Even tele operators face the challenge of building brand loyalty in the market, where switching tele operators has become popular. Tele operators are currently spending more to differentiate their services and sell premium services that build revenue.[18] The focus of this paper is on loyalty to mobile services in general, regardless of who offers them.

### 3.1. Definition of Mobile Services

There does not yet exist a conceptual agreement on the term mobile commerce. Generally, the nature of mobile commerce is that services can be accessed anywhere, at any time. Mobile services are often referred to as wireless services. Nevertheless, wireless is not necessarily mobile. The definition of mobile includes the notion of mobility and emphasises the importance of communication-in-motion. [2] Wireless service can be for example an Internet service accessed via a wireless local network (LAN) area by a laptop computer at an airport. Mobile service on the other hand is, in principle, entirely independent of physical location, e.g. obtaining a stock quote over a mobile phone sitting in a bus on the way to work. Mobile service usage is not restricted to mobile phone users. Services can be accessed with all kinds of handheld devices with wireless applications e.g. personal digital assistants (PDA). Nevertheless, because penetration of other handheld devices are still small compared to mobile phones, this paper will mainly concentrate on services that are accessible via a mobile phone. I define mobile services as any kind of service that can be accessed via a mobile device, and that is delivered in interaction between an organisation and a customer.

Thereby including customer relationship communication and excluding text messaging to private persons.

Some existing mobile services are presented in Figure 1 in order to illustrate the special conditional nature of mobile services. Mobile commerce unleashes the limitation of physical barriers present in electronic commerce, because the customer can carry the service around as he or she moves from one place to another. Services can be accessed anytime, anywhere in a location-independent manner.

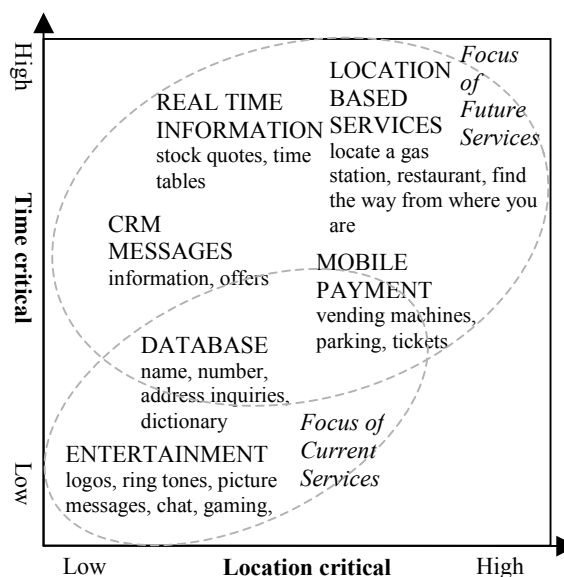


Figure 1: The Domain of Mobile Services

In the mobile environment the following things, which are depicted as the three axes in Figure 1, are considered to be important compared to other options (Internet and traditional channels):

- 1) Location: the relative location of the user, when the service is used.
- 2) Time: the relative immediacy of the needed service and the task that is being completed. [21]

Next, some of the mobile services depicted in Figure 1 are described more in detail. *Entertainment services* are very dominant in the current mobile service market. Normally customers order logos, ring tones and similar services where and when they want to, but ordering these services is not location or time critical. They can be ordered anywhere. *Location based services* on the other hand, are a good example of highly location and time critical mobile services. In a situation when a task has to be done, or information obtained, immediately in a certain location, the benefits of mobile services are distinguished best. For example, you can with the help of a location based service locate yourself or others (e.g. spouse, children, elderly people) in case of an emergency and get information how to take the shortest way to the place you want to go to. *Mobile payment* is often used in situations when cash is not available, or just because it is

convenient to pay parking fees, metro or bus tickets with the mobile phone, or because you are in a hurry and do not have the time to purchase the ticket beforehand. *Real time information* refers to information ordered to the mobile phone that is highly time critical, e.g. Ordering stock quote information or information about flight delays. *Customer relationship communication* to customers who have given permission to contact them through the mobile channel can be for example SMS message that your car is ready to be picked up from the garage or alerts on a limited time promotional airline fare or a SMS reminder that the seminar you have signed to begins at 9 o'clock and gives instructions how to get there and maybe even asks you to reply to the SMS message, if you prefer red or white wine at conference dinner. Information that is acquired from *databases*, e.g. name, number or address information inquiry services are not that dependent on location, but normally ordered in a situation when you expect to get the information easily within a reasonable time.

The most fruitful domain of mobile services is a highly time critical and highly location critical service that is perceived highly valuable by the customer. The competitive advantage of the mobile channel compared to other channels is highlighted in services that offer these kinds of solutions. The services that until now have reached the great mass of customers (e.g. entertainment services) will naturally exist in the future as well and will be perceived valuable be the right target group. But from the loyalty viewpoint, the most important mobile services in the future will be services, that serve the customer better, more personally and enhance the relationship between the service provider and the customer as well as support other service channels in time and location critical contexts.

## 4. Literature Review

Next, the concept of loyalty is defined based on previous literature. The nature of loyalty is discussed more in detail in order to highlight the special context based nature of mobile service usage situations. A list of suggested scale of items for measuring loyalty to mobile services is presented at the end of this paper.

### 4.1. Customer Loyalty

Traditionally customer loyalty has been defined as repeat purchases [24]. Nowadays, the loyalty concept in marketing research typically includes the two-dimensional nature of customer loyalty consisting of a physical and mental dimension. Even though researchers have included the attitudinal factor, companies still often tend to assess loyalty based on behavioural measures.

Day [8] was one of the first to emphasise the importance of attitude in addition to loyal behaviour and to distinguish between intentional and spurious loyalty.

The following quote depicts the attitudinal aspect of loyalty i.e. commitment.

"Loyalty is a deeply held commitment to rebuy or repatronize a preferred product / service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour." [24, p. 34]

Commitment can result from either dedication (affective commitment) or constraints (calculative commitment). Attitudinal loyalty is equivalent to affective commitment. [5] Attitudes influence behaviour and several researchers have found positive relationships between attitudes i.e. commitment and behavioural loyalty [17, 23].

Mobile services are often based on a contract with the service provider or the services are used on a pre paid account. Such constraints, make it hard to change service providers, and are indicators of calculative commitment. Bendapudi and Berry [5] suggest that constraint based relationship maintenance can lead to staying in the relationship, but dedication based relationship maintenance leads to enhancement of it through affective commitment. Therefore, attention should mostly be given to affective commitment.

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" [23, p. 64]. This conceptualisation includes the attitudinal aspect of loyalty and it has been successfully used in a recent study by Odekerken-Schröder [23]. Similar definition has been used e.g. by Morgan and Hunt.[22].

In this study customer loyalty is defined as a combination of loyal behaviour and commitment. Hence, a loyal customer is someone, who believes that an object firm's products continue to offer the best choice alternative and thereby ignore communications from competitive firms. [24]

### 4.2. Consequences of Loyalty

Loyalty can be expressed in multiple ways, including saying positive things about the company to others [6], recommending the company or service to others [25], paying a price premium, and remaining loyal to the company. [37]

Zeithaml et al. [37] developed a conceptual model of the impact of service quality on behaviour that signals whether customers intend to remain with or defect from a company. The scale items for the model depicted word-of-mouth communication, purchase intentions, price sensitivity, and complaining behaviour. To clarify the

relationship between loyalty and its consequences, the measures should in my opinion be separated into different constructs. This view is supported by e.g. Hennig-Thurau et al [17] who defined word-of-mouth as a consequence of commitment [17]. Harrison-Walker [36] also posit that affective commitment as an antecedent of word-of-mouth communication. Dick and Basu [9] also claim that consequences of loyalty include word –of-mouth, resistance to counter persuasions and search motivation. Moreover, attitudinal loyalty has been proven to lead to willingness to pay a higher relative price [7] [12]. Therefore, in this study word-of-mouth communication and willingness to pay more are considered to be consequences of loyalty. Switching behaviour is considered to be a possible consequence of low commitment.

Switching to another service provider is considered easy in the mobile service context. However, the learning process in general, including downloading the necessary software and settings to be able to use new mobile services requires time and effort. The help and advice of friends is very important when people are trying mobile services for the first time. Hence, it can be assumed that positive word-of-mouth communication is more important in the mobile service context than it is in traditional or e-business context.

Moreover, in a mobile service context the awareness of brands and service providers and knowledge how to use the services is essential for initial use. Previous research [26] shows, that the most common problems in using mobile services are that people do not remember how to access the services, or perceive using the mobile services very difficult. Price sensitivity might be of less importance in mobile services than in traditional services, because they are often used in a context when other media is unavailable.

### **4.3. Special Characteristics of Loyalty to and Consequences of Loyalty to Mobile Services**

In the future, when people get used to using the mobile technology, users of mobile services will be more illoyal, informed, impatient and goal oriented. They will expect independence, control, experiences, personalisation, freedom of place and a digital co-operation partner. The greatest value for customer is created when communication, information and transaction are integrated in the physical and social context where the customer is. [35] Especially the access to real-time information services can be criteria to choose a service provider. The perceived value of mobile services will rise if the customer can access relevant information that is specified to a certain place and time.[33]

People are currently trying the services for the first time and when the novelty effects wear down, probably only the best services offered by the best known service providers will be used frequently in the future. In the

Japanese market some loyalty effects of mobile services have already emerged. Hence, iMode users personalise their phones with entertaining icons, ring-tones, cartoons, buddy programs and individual browsing preferences, which has lead to the lowest global churn rate. In general, personalised services are expected to create strong customer relationships that encourage transactions and prevent customers from switching to different services. [3].

However, loyalty is complex to estimate in a market, where there are many different actors contributing to the delivery and invoicing process. The complex invoicing principles in Europe do not really support the development of mobile services. In Japan, the business structure is clearer than in Europe. NTT DoCoMo provides a central portal through which the service providers offer their services [3]. Invoicing may also base on prepaid account. However, the pre-paid account does not allow specific tracking of use of the services, which probably makes it more difficult to assess the behavioural loyalty to the services offered.

In mobile services, loyalty consists of a loyal attitude towards the service provider or brand as well as loyal behaviour – ordering the same service frequently or always as the situational need arises for the service. Loyal behaviour in mobile services may be expressed by ordering a variety of services from the same service provider, ordering the same service again or ordering more sophisticated services from the service provider. Attitudinal loyalty has been proven to be an especially important factor influencing customer relationship in services where customer relationships are often based on service contracts with the service provider [12].

In general, it is easy to track behavioural loyalty of some mobile services, for example how many times and how frequently the owner of the tele operator's account has ordered a mobile service (e.g. paying your parking fair, bus ticket or vending machine purchase with a mobile phone), because the transactions are often invoiced on a monthly phone bill. Tele operators, mobile service providers and mobile portals have the best opportunities to combine customer information with their consumption data. Other companies have difficulties in accessing the consumption data, because they have no invoicing relationship with the customers.[33] Nevertheless, it is difficult to define who in fact has ordered the service and even more difficult to assess how the customer perceived the service and if he or she is going to use it again. These kinds of core mobile services are today mainly targeted to new customers. Supporting mobile services, which are offered to current customers (e.g. real time information about account balance, or information sent to the mobile phone when your car is ready to be picked up from repair) are easier to track, because it is possible to link the customer data and the service usage data. However, these behavioural measures of mobile service use do not reveal how committed the

customers are to the service provider and what their purchase intentions are in the future. Neither do they reveal the share of wallet or if the customer is also using competing mobile services. Therefore, other measures for customer loyalty are needed to complement the behavioural loyalty measures.

Commitment can be expressed e.g. telling friends and colleagues positive things about the usage experiences of mobile services, giving advice how to use the services, expressing willingness to pay more for customised services, replying to CRM-messages, forwarding valuable information to your friends, updating the mobile phone configurations to be able to access e.g. picture messages etc.

The consequences of loyalty: word-of-mouth communication, price sensitivity and switching are depicted by traditional behavioural intentions battery suggested by Zeithaml, Berry and Parasuraman [37]. However, Harrison-Walkers [36] set of items generated to measure separately activity (enthusiasm and detail) and praise (favourableness) word-of-mouth were included in the scale items. Activity items are specified to measure how often the word-of-mouth communication takes place and to how many people the word-of-mouth sender communicates to. Praise items are designed to measure the favourableness of the word-of-mouth. These constructs were included, because in a context based environment, word-of-mouth is a more complex construct than in the traditional environment. In Internet and mobile channels it is easier to forward messages to many friends and therefore the number of recipients, the frequency of the communication as well as the quantity of information provided are all important components of word-of-mouth measures. [36]

Switching intentions in mobile services are often expressed as intentions to switch service provider even if the service provided is satisfactory. Even if the mobile service meets the customer needs and is delivered excellently, problems often arise in customer service and transactions in the billing phase. Therefore, it can be assumed that customers are committed to mobile services in general, but not necessarily committed to the service provider. Nevertheless, it is difficult to make a distinction between commitment to a service brand and to a service provider. Usually, the service provider markets mobile services and thereby the service and service provider are perceived as the same. However, the mobile services offered today, do not differ much from one service provider to another and thereby differentiation is mainly based on the brand perceptions as well as the image of the service provider. Opportunities exist to more personalised services and customer relationship management communication via the mobile channel.

## 5. Suggested Measurement Scale

The scale items for measuring loyalty are suggestions based on current loyalty literature. However, some modifications to the traditional measures have been done based on researchers' experiences from a preliminary pilot study about customer loyalty to mobile services [26]. The results indicated that many respondents agreed strongly that they would use the *services* again, but they would not necessarily choose the *same service provider* again. Furthermore, the choice of service channels is important, because mobile services are often used in situations where other service channels are not accessible. Therefore, the loyalty measures are divided into three separate sections: service provider specific questions, mobile service specific questions and channel specific questions. The commitment measures have been given special attention because attitudinal loyalty is especially important in service environment. If customers do not feel committed to the service provider, the relationship will not last.

The scale items were developed so that the questions fit different kinds of mobile services, but are so general that users of different services can answer the same questions. The scale items in the Appendix 1 are preliminary suggestions for measuring loyalty to mobile services. The scale items will be developed further and the reliability of the measures will be tested later on with the help of a separate survey that will be conducted on end users of different mobile services.

## 6. Conclusions and Suggestions for Further Research

Models that are built based on empirical research of traditional services are rarely applicable as such for assessment of new electronic services. This paper contributes to earlier research on loyalty by suggesting a measurement scale for loyalty to mobile services. However, the reliability of the suggested measures should be tested empirically preferably with samples including end users of different type of mobile services provided with several service providers. The relationships between loyalty and consequences of loyalty as well as the relationship between commitment and behavioural loyalty in mobile services need to be viewed critically and researched further in the future.

## Appendix 1: Scale items

Mobile service is any kind of service that can be accessed via a mobile device, and that is delivered in interaction between an organisation and a customer. Thereby including customer relationship communication and excluding text messaging to private persons.

Each item will be accompanied by a 7-point likelihood scale (1= totally disagree and 7= totally agree).

(-) = will be reverse coded.

Dimension	Scale item	Source
	<b>SERVICE PROVIDER SPECIFIC QUESTIONS</b> service provider = the organisation that offers the service to the customer (tele operator, mobile portal, other company offering a mobile service)	
<b>Commitment</b>	I consider this <i>service provider</i> my first choice to order mobile services	Modified from [20, 37]
	I am proud to use the services of this <i>provider</i>	[36] [13]
	I care about the fate of this <i>service provider</i>	[36]
	I like the way this <i>service provider</i> organisation operates	[36]
	I feel loyal to this <i>service provider</i>	[13, 23]
	It would be difficult for me to change to another <i>service provider</i>	modified from [32] [4] [36]
	Changing to another <i>service provider</i> would be impractical	[36]
<b>Behavioural</b>	Next time, when I need such services, I will choose <i>this service provider</i>	[34]
<b>Intentions</b>	I intend to continue ordering from this <i>service provider</i> over the next few years	[14]
	As long as the present service is offered, I doubt that I would switch <i>service provider</i>	[14]
	I will order more services from <i>this service provider</i> in the future	modified from [37]
<b>Switching</b>	I will order less services from this <i>service provider</i> in the future (-)	modified from [37]
	I will order mobile services from another <i>service provider</i> in the future that offers better benefits (-)	modified from [37]
<b>WOM</b>	I will recommend <i>the service provider</i> to someone who asks my advice	modified from [37]
	I say positive things about this <i>service provider</i> to other people	modified from [37]
(activity)	I mention this <i>service provider</i> to others quite frequently	[36]
(activity)	I've told more people about this <i>service provider</i> than I've told about most other service providers	[36]
(praise)	I have only good things to say about this <i>service provider</i>	[36]
(praise)	I am proud to tell others that I use this <i>service provider's services</i>	[36]
<b>Price sensitivity</b>	I will continue to order services from this <i>service provider</i> even if the prices increase somewhat	modified from [37] [12]
	I will accept higher prices if this <i>service provider</i> raises its' prices	[12]
	<b>SERVICE SPECIFIC QUESTIONS</b> Service = the mobile service the respondent has used (e.g. Paying for parking fee, buying a metro ticket, ordering a ring tone, ordering stock quotes)	
<b>Commitment</b>	I use the same service via different channels (internet, store, phone) depending on where I am, when the need for the service arises.	
<b>WOM</b>	I will recommend this particular mobile service to someone who asks my advice	[37]
	I say positive things about this particular mobile service to other people	[37]
	I would gladly help friends and relatives to use this mobile service for the first time	
<b>Price sensitivity</b>	I will continue to order this mobile service even if its prices increase somewhat	[37] [12]
	I would pay a higher price for the mobile service than competitors charge for the benefit I currently receive from this service provider.	[37] [12]
	<b>CHANNEL SPECIFIC QUESTIONS</b>	
<b>Commitment</b>	I consider the mobile channel my first choice to order this service	Modified from [20, 37]
	It would be difficult for me to order this service via other channels (internet, store)	
<b>Behavioural</b>	Next time, when I need this service, I will order it via mobile channel.	[20]
<b>Intentions</b>	I will order more mobile services in the future	[37]
<b>Switching</b>	I will order less mobile services in the future (-)	[37]
<b>WOM</b>	I will recommend mobile services in general to someone who asks my advice	[37]
<b>Price sensitivity</b>	I will continue to order services via the mobile channel even if the prices increase somewhat	[37] [12]
	I would pay a higher price for the mobile service than for the benefit I currently receive via other channels.	[37] [12]

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