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Mobile Service and Phone as Consumption System - the Impact on Customer Switching

Mitja Pirc Universitat Pompeu Fabra, Spain

Abstract

Mobile telecommunications service sector is, in spite of providing high service quality and striving for customer satisfaction, characterized by dynamic customer activities and provider switching. In this research with data from Slovenia we explore the impact of usage, budgetary constraints, involvement and customer characteristics on customers' intention to switch mobile service provider. By using the consumption system perspective on mobile services and mobile phone, we seek to provide explanation on the factors of customer switching. It is shown that the mobile services usage effect on switching intentions is curvilinear (positive linear and negative quadratic) and that only the budgetary constraint regarding the service matters and not the one related to the mobile phone. Past mobile service providers switching experience also contributes to the intention to switch. Mobile phone ego involvement has positive impact on customer retention, however purchase involvement (both mobile phone and mobile services) increases customer risk. This research thus emphasizes the studying of the mobile services system together with its phone subsystem and it based on extensive survey. Managerial implications are discussed.

Keywords: Customer Switching; Consumption System; Mobile Phones; Mobile Services; Survey; Slovenia

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Mobile service and phone as consumption system – the impact on customer switching

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Abstract

Mobile telecommunications service sector is, in spite of providing high service quality and striving for customer satisfaction, characterized by dynamic customer activities and provider switching. In this research with data from Slovenia we explore the impact of usage, budgetary constraints, involvement and customer characteristics on customers' intention to switch mobile service provider. By using the consumption system perspective on mobile services and mobile phone, we seek to provide explanation on the factors of customer switching. It is shown that the mobile services usage effect on switching intentions is curvilinear (positive linear and negative quadratic) and that only the budgetary constraint regarding the service matters and not the one related to the mobile phone. Past mobile service providers switching experience also contributes to the intention to switch. Mobile phone ego involvement has positive impact on customer retention, however purchase involvement (both mobile phone and mobile services) increases customer risk. This research thus emphasizes the studying of the mobile services system together with its phone subsystem and it based on extensive survey. Managerial implications are discussed.

Keywords: Customer Switching; Consumption system; Mobile phones; Mobile services; Survey; Slovenia

1. Introduction

Mobile telecommunications sector has been frequently analyzed from the marketing perspective (Aydin, Ozer and Arasil, 2005; Gustafsson, Johnson and Roos, 2005; Bolton and Lemon, 1999; Bolton 1998). The sector is particularly interesting due to its increased dynamics as it enables observation of various phenomena, like mobile service provider exiting and switching.

The understanding of customer switching and loyalty behavior in services gained considerable attention in recent years (Keaveney, 1995; Jones and Sasser, 1995; Rust, Lemon and Zeithaml, 2004; Reinartz, Thomas and Kumar, 2005), although it is also pointed out that the mechanisms of customer switching are not completely understood (Sirdershmukh, Singh and Sabol, 2002; Agustin and Singh 2005; Homburg, Koschate and Hoyer, 2005).

An important limitation of the above mentioned studies is that they investigate switching or retention, reporting only the single effects of a mobile service firm's efforts on customer behavior. They mostly ignore the potential influence of mobile phones and their brands associated with the mobile service experience. One of the main characteristics of the mobile telecommunications sector si that instead of offering products or service alone, bundles (mobile phone and service) are offered when acquiring new customers or retaining existing ones. These bundles are often

called consumption system and are defined as offerings characterized by a significant (mobile) service and a product (mobile phone) subsystem. It also represents a pattern of consumption in which consumption occurs in multiple episodes over time. There are many consumption systems which would have a significant service and a product subsystem: internet service provider and router, fixed calls provider and fixed phone, etc.

Kurtinaitiene (2005) researched the customer orientation among European mobile services and concluded that the awareness of being customer oriented is high and that data and information is being collected, though the learning and acting on insights is not fully developed. The mobile services providers who do base their actions on customer intelligence are shown to perform better in their respective markets.

Many telecommunications service firms find important benefits facilitating products to customers that are directly involved or required in the service delivery. This phenomena is observed also in other sectors, for instance banking services and credit cards. In many instances, the product becomes the only tangible aspect associated with the service and might gain as much importance as the service offered to the customer. This idea was explicitely noticed by Vargo and Lusch (2004) as goods are often merely distribution mechanisms for service provision.

Despite its importance, these effects are largely unexplored in the marketing literature. Though some authors did study this dynamics: Gordon, Fox and McKeage (1998) looked at the role of involvement in relationship marketing in the context of jeans and retail stores and find that the buyers' loyalty to the store is positively influenced by the product category involvement. Mittal, Kumar and Tsiros (1999) studied the attribute-level performance, satisfaction and behavioral intentions over time in a consumption system with dominant product and service subsystem.

Apart from firm-customer relationships and competitive offerings another very important factor influencing is the legislation as different countries (markets) have limitation imposed on the service providers in terms of bundling phones with services, number portability, interconnection fees, SIM lock, length of contracts, tariff plan structures and charging. As this study is limited on one market only we cannot control for this influences. Even though we believe that certain outcomes of the study, which are not regulation dependent can be extended to other markets.

This research aims at providing a theoretical model and empirical evidence to investigate the role and influence of the product (mobile phone) as a part of consumption-system on customer loyalty and customer switching intentions to mobile service providers. Therefore deals with an important and current problem - that of mobile services' customer switching. It is based on the large survey and comprehensive literature review.

2. Theoretical Background

Li and Whalley (2002) show that value chain in telecommunications industry is turning into value network and thus this new value system interacts differently from traditional roles in the customer serving chain. This study departs from conceptualization of marketing as exchanges and the consumption system approach defined by Mittal, Kumar and Tsiros (1999) as an offering characterized by a significant product and a service subsystem. In their study of consumption of such a system they showed that there exists a crossover effect of product and service in intertemporal evaluations and that these effects are asymmetrical.

Stremersch and Tellis (2002) define a concept of bundling as the sale of two or more separate products and/or services in a package. They have also identified two dimensions of bundling focus: price and product. Price bundling is the sale of two or more separate products and/or services as a package at a discount, without any integration. Product bundling is the integration and sale of two or more separate products and/or services at any price. Pure bundling is a strategy in which a firm sells only the bundle and not (all) the products and/or services separately. Mixed bundling is a strategy in which a firm sells both the bundle and (all) the products and/or services separately. The last strategy is the one pursued by the mobile telecommunications service providers, which is due to the competitive market as mixed price bundling strategy dominates a pure price bundling strategy.

Important perspective on the existence of bundling comes from the branding literature. Venkatesh and Mahajan (1997) studied the products with branded components from the perspective of how premium prices could be charged and how the partners are selected. McCarthy and Norris (1999) found that branded ingredients consistently and positively affected moderate-quality host brands, but only occasionally positively affected higher-quality host brands.

Gerpott, Rams and Schindler (2001) have in their study of consumer loyalty in mobile telecommunications in Germany used the model satisfactifaction - loyalty - retention. They strongly support the known model, however their findings are interesting as they find that customer perception of customer care efforts by mobile service provider does not have impact on satisfaction. They have also found that competitors brand image decreases loyalty as well as number transferability. Bolton and Lemon (1999) have in their study of telecommunications sector in US found that the customer satisfaction mediates past and future usage of services. Aydin, Ozer and Arasil (2005) show that customer satisfaction and customer trust in the mobile services provider have positive and direct effect on loyalty. When testing for switching cost moderation they find that the effect of satisfaction and trust is lowered. Roos, Edvardsson and Gustafsson (2004) have in their study in Sweden compared state services (monopol over the service), insurance, retail banking, telecommunicatons and retail. Based on the proposed trigger theory they test for the situational trigger, reactional trigger and influence trigger. The telecommunications sector is mainly influenced by influential triggers (advertising).

Consumption systems and bundles can be examined cross-sectionally, as it the focus of this study, to gain structural view. However they can also be examined longitudinally to gain a process view of the system (Mittal, Kumar and Tsiros, 1999).

3. Previous studies, definitions and hypothesis

Morgan and Hunt (1994) defined the propensity to leave as the perceived likelihood that a partner will terminate the relationship in the (reasonably) near future. Ping (1993) operationalized exiting as the propensity to terminate relationship with the primary provider (Mobley, 1977). In line with this definition and Ping's (1993; 1999) distinction between switching and exit is made and the customer's propensity to switch is defined as the expressed likelihood by the customer of positively reacting to competitors' offers. There is criticism on the study of behavioral intentions (Chandon, Morwitz and Reinartz, 2005), and the importance of studying behavioral intentions and actual behaviors simultaneously. However we believe that understanding customer propensity to react to competitors marketing actions to switch can

provide valuable insight in the study of determinants of relationship maintenance and customer loyalty.

Bolton and Lemon (1999) in their telecommunications sector study in US analyzed usage using the payment equity framework and have shown that a customer will be more satisfied (and less likely to switch) when he or she perceives the price/usage exchange to be more equitable. Verhoef (2003) in his study of insurance products however does not find effect of payment equity. Keaveney and Parthasarathy (2001) in their study of online services find that continuers exhibit higher usage. Gustaffson, Johnson and Roos (2005) in their study of telecommunications sector in Sweden find that price has negative effect on churn. The way usage is connected to other variables, particularly price, seem to play a very important role. The usage in telecommunications is directly connected to the cost of service through tariff plans. Therefore it can be hypothesized that it will have positive effect on switching, following payment equity argument by Bolton and Lemon (1999). Also in the light of recent research on nonlinearities I expect the negative impact of squared usage, as heavier users will display greater loyalty (Agustin and Singh, 2005, Homburg, Koschate and Hoyer, 2005).

H1: Usage has positive effect on customer's propensity to switch.

H2: Usage squared has negative effect on customer's propensity to switch.

When faced with a purchase decision, consumers first engage in internal search, examining information in memory about past experiences and product-relevant knowledge (Bettman, 1979). Consumers learn from their experiences with products and services and update what they already know (Boulding et al. 1993). The lack of experiential knowledge of competitive offerings can contribute to perceived switching costs, particularly through learning-curve effects (Dick and Basu, 1994), which matches Lehman's (1999) notion of adaptive consumer. Therefore we expect to have positive effect of past product experience and of past switching experience on intention to switch, which was also found in a recent study by Gustaffson, Johnson and Roos (2005). Past service experience will have negative effect on intention to switch (Keaveney and Parthasarathy, 2001; Ganesh, Arnold and Reynolds, 2000)

H3: Past service experience has negative effect on customer's propensity to switch.

H4: Past phone experience has positive effect on customer's propensity to switch.

H5: Past service switching experience has positive effect on customer's propensity to switch.

Mental budgeting in consumer decision is based on the literature on mental accounting (Thaller, 1999). Thaler (1985) defines mental accounting as the set of cognitive operations used by both individuals and households to organize, evaluate, and keep track of financial activities. Consumers often set budgets for categories of expenses, which enables tracking expenses against their budget and facilitates making rational trade-offs (Thaler, 1999; Heath and Soll, 1996). Heath (1995) finds that people increase their commitment when they do not set a budget. He also finds that people increase their commitment when they cannot track additional investments. In line with previous studies we define mobile service budgetary constraint as customers perception that their budgetary constraint limits their usage of service and the mobile phone budgetary constraint as the customers perception that their budgetary constraint influences their choice of product.

H6: Mobile service budgetary constraint has positive effect on customer's propensity to switch.

H7: Mobile phone budgetary constraint has positive effect on customer's propensity to switch.

Involvement is most frequently conceptualized as perceived personal relevance (Zaichkowsky, 1985). Involvement can apply to a purchase decision, product category, a brand, or a marketing communication (Laurent and Kapferer (1985; Gordon, McKeage and Fox, 1998). Ganesh, Arnold and Reynolds (2000) distinguish between two types of involvement: purchase involvement and ego involvement. As in our case we are analyzing the service consumption system (mobile phone services) with a product subsystem (mobile phone) we will define mobile phone purchase involvement as relating to the level of concern for or interest in the purchase process of the product (Ganesh, Arnold and Reynolds, 2000). Purchase involvement can be understood as the cost, effort, or investment in a purchase (Zaichkowsky, 1985). This construct is particularly important in the service consumption system where product subsystem is present during the customer acquisition process (bundling and branding). The products purchase involvement plays an important role in both joint mobile service/mobile phone bundle (Stremersch and Tellis, 2002) and the branded component perspective (Venkatesh and Mahajan, 1997; McCarthy and Norris, 1999). Mobile phone ego involvement will be defined as the »importance of the product to the individual and to the individual's self concept, values, and ego«. (Beatty, Kahle and Homer, 1988). Ganesh, Arnold and Reynolds, 2000 show that high ego involvement decreases switching. Mobile service category involvement is relating to the interest in the service category in general. This can be best understood in general interest in the category, attitude towards the category. Category involvement was shown to be positively associated with loyalty with the product (Gordon, McKeage and Fox, 1998; Keaveney and Parthasarathy, 2001).

H8: Mobile service category involvement has negative effect on customer's propensity to switch. H9: Mobile phone purchase involvement has negative effect on customer's propensity to switch. H10: Mobile phone ego involvement has negative effect on customer's propensity to switch.

Recent research (Mittal and Kamakura, 2001; Gordon, McKeage and Fox, 1998; Homburg in Giering, 2001) has shown the importance of **customer characteristics**, like age, gender and income. Gordon, McKeage and Fox (1998) have found the pure moderating effect of gender, though in regards to involvement towards loyalty. Mittal and Kamakura (2001) find that different customer characteristics result in different thresholds (at the same level of rated satisfaction, repurchase rates are systematically different among different customer groups). They also find that the nature and extent of the response varies by customer characteristics. Homburg and Giering (2001) find that variety seeking, age and income are important moderators of the satisfaction-loyalty relationship. Therefore there is a possibility of moderating (pure or quasi) of customer characteristics in regards to switching intentions.

Type of relationship is defined as either contract or prepaid as those are the two options available on the market. As the contract relationship binds the customer to the service provider (i.e. if customer leaves before contract terminates needs to pay penalty). Therefore we would expect type of relationship to have an effect on intention to switch through increased switching costs.

4. Data and Methodology

The studied sector was mobile services and mobile phones. The sampling frame was the central register of residents of Slovenia with a random sampling of 1000 individuals, aged 14 to

74 years. The sample was representative of permanent resident of Slovenia. The survey was done in person and there were at least 5 personal contacts before the individual from the sample was excluded due to not being available. The surveying was done in two waves; the first one in April 2005 and the second one in May 2005. Final response rate was 65.9%. To ensure high response rate all the individuals from the sample were contacted by mail several times. All of them have prior to the survey received a letter by mail that they will be visited together with the information brochure about the survey. For further analysis only the individuals who are customers of a mobile phone services provider were retained, entries with answers »do not know« and missing values were removed and later on also some outliers. In the end there were 470 people individuals left in the analysis. The collected data was checked for the respondent bias and it was found it was not biased.

The collected data thus contains information about the whole mobile telecommunications market in the country, which gives a more complete picture than the data that is usually collected in studies of this type, where the sample of customer is usually from one service provider only.

Key constructs are and their scales are presented in appendix. Apart from involvement constructs all of the were measured as single-item constructs, which in certain way might create problem with constructs. An exploratory factor analysis of the nine involvement items revealed a three factor solution as hypothesized. The first three items are loading into the product ego involvement, the second three items are loading into the service category involvement and the last three are loading into the product purchase involvement. The Cronbach's alphas are 0.81, 0.72 and 0.65 respectively.

Table 1 Exploratory Factor Analysis Results for Involvement Items

| | Product Ego | Service Category | Product Purchase |
|--|-------------|---------------------|---------------------|
| | Involvement | Involvement | |
| In a way I am attached to my mobile phone. | .87 | .15 | .10 |
| You could say that my mobile phone became a part of me. | .88 | .22 | .04 |
| Without mobile phone I would feel disconnected from the world. | .78 | .01 | .19 |
| I am interested in new technologies in the field of mobile telephony. | .08 | .78 | .16 |
| I am looking forward to new services of mobile telephony in the future | .11 | .84 | .17 |
| Using mobile phone services is fun. | .21 | .70 | .08 |
| Mobile phone design | .12 | .30 | .71 |
| Mobile phone size and weight | .05 | .04 | .81 |
| Mobile phone brand | .14 | .12 | .71 |

In Table 2 we can observe the correlation matrix, means and standard deviation of the independent variable.

 $TABLE\ 2$ Means (Standard Deviation), Cronbach's Alphas and Correlation Matrix of Independent Variables (bolded are significant at p < 0.1)

| | Mean | S.D. | Cron. Alpha | X1 | X2 | Х3 | X4 | X5 | X6 | X7 | X8 | X9 | X10 | X11 |
|----------------------------------|------|------|----------------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| X1 Usage | 7.2 | 7.3 | | 1 | | | | | | | | | | |
| X2 Service experience (years) | 5.3 | 1.3 | | .26 | 1 | | | | | | | | | |
| X3 Phone experience (#) | 3.4 | 3.7 | | .24 | .26 | 1 | | | | | | | | |
| X4 Past switcher | 0.21 | .41 | | 00 | .08 | .08 | 1 | | | | | | | |
| X5 Gender | 0.21 | .41 | | 12 | 10 | 16 | 02 | 1 | | | | | | |
| X6 Age | 38.7 | 16.4 | | 07 | .00 | 19 | 18 | 03 | 1 | | | | | |
| X7 Service Budgetary constraint | 3.0 | 1.5 | | 09 | 02 | 05 | .07 | .07 | 15 | 1 | | | | |
| X8 Phone budgetary constraint | 3.8 | 1.7 | | 09 | 03 | 04 | .01 | .06 | 02 | .08 | 1 | | | |
| X9 Phone Ego Involvement | 3.49 | 1.46 | .81 | .02 | .12 | .10 | .04 | .10 | 17 | .18 | .04 | 1 | | |
| X10 Phone Purchase Involvement | 2.73 | 1.47 | .65 | .08 | .02 | .16 | .10 | 19 | 17 | .07 | .12 | .14 | 1 | |
| X11 Service Category Involvement | 2.58 | 1.48 | .72 | .04 | .16 | .09 | .04 | 22 | 25 | .03 | .06 | .22 | .25 | 1 |

5. Results of Analysis

Testing of the hypothesis was done using nested multiple regression analysis in SAS 8.2. Variables were introduced to the model stepwise and it was controlled for the stability of the standard error. In the Table 3 there are three intermediate steps shown. The first nested model presented include usage, experience with service and phone and customer demographics. In the second model budgetary constraints about service and phone and involvement constructs are added. The third nested model shows moderation test where the effect of customer characteristics is shown.

The R square of the full model is 0.129, the adjusted R square is 0.104 and the F-value is 5.10. Two previous nested models and their statistics can be observed in Table 3.. In studies of switching and loyalty intentions similar R squares were obtained. For instance Verhoef (2003) obtains adjusted R square of 0.12.

Table 3 Linear Regression Model Results for Customer' Propensity to Switch

| Variable | Model 1 | | Model 2 | | Model 3 | |
|-------------------------------------|-----------|----|-----------|----|-----------|----|
| Usage | .05 (.03) | ** | .06 (.03) | ** | .07 (.03) | ** |
| Usage squared | 00 (.00) | ** | 00 (.00) | ** | 00 (.00) | ** |
| Gender | 46 (.14) | ** | 34 (.14) | | .37 (.28) | |
| Age | 00 (.00) | | 00 (.00) | | 00 (.00) | |
| Type of relationship | 04 (.80) | | 04 (.14) | | 07 (.14) | |
| Service experience (years) | .03 (.06) | | 01 (.06) | | 00 (.06) | |
| Phone experience (#) | 02 (.20) | | 02 (.02) | | 02 (.02) | |
| Past switcher | .46 (.17) | ** | .42 (.17) | ** | .42 (.17) | ** |
| Service Budgetary constraint | / | | .14 (.05) | ** | .14 (.05) | ** |
| Phone budgetary constraint | / | | .03 (.04) | | .03 (.04) | |
| Phone Ego Involvement | / | | 09 (.05) | * | 08 (.05) | * |
| Phone Purchase Involvement | / | | .10 (.05) | ** | .10 (.05) | ** |
| Service Purchase Involvement | / | | .12 (.05) | ** | .52 (.14) | ** |
| Gender X Phone Purchase Involvement | / | | / | | 27 (.09) | ** |
| N | 470 | | 470 | | 470 | |
| R square | .07 | | .11 | | .13 | |
| Adjusted R square | .05 | | .09 | | .10 | |
| F-value | 4.49 | | 4.73 | | 5.10 | |

^{**} p < .05, * p < .10

The results show that usage indeed has positive linear effect on and quadratic negative effect on switching intentions, which indicates that up to a certain perceived level of usage the intention to switch is increasing, though for the heavy users it actually decreases. The experience with

service and product was shown not to influence the intention to switch. Prior experience with switching was shown to be influential as hypothesized. By introducing customer characteristics in the model and relationship type we were controlling for heterogeneity as advised by Mittal and Kamakura (2001) and multicolinearity. Perceived service budgetary constraint has positive effect as hypothesized, however phone budgetary constraint does not have effect on the intention to switch service provider. As we can see from the Table 3, the all three types of involvement have effect on the intention to switch. As hypothesized phone ego involvement has negative effect, however phone purchase involvement and service category involvement have positive effect on switching.

We have tested for mediation and moderation of customer characteristics and the past churn experience using Baron and Kenny (1986) procedure. The outcome was that the gender is completely moderated through the phone purchase involvement. We have not found other moderations or mediations. As gender is coded 1 for man and 2 for woman we interpret the results as women's intention to switch being less influence as men's, though in both cases the phone purchase involvement is an important factor in changing the mobile service provider.

6. Discussion

Main findings and managerial implications

We find support that the mobile service usage has a curvilinear effect on propensity to switch, which would indicate that with the usage the risk increases, however after a certain usage point it started to decrease. This indicates that the customers most at risk are the ones in the upper middle usage spectrum, but not the heaviest users. This result has implications for designing tariff plans in terms of how to structure them and at what usage level the customer get discounted as well as awarding bonus points.

Regarding the propensity to switch service providers, only the mobile service budgetary constraint influenced and not the mobile phone budgetary constraint and nor did the income. Therefore when addressing customer from the price perspective the service price should be put adjusted and not the mobile phone price as customers think in mental accounts terms.

Surprisingly the length of experience with the service does not play and important role and neither does the relationship type, which suggests that the learning curve with mobile services is fairly short and thus we do not observe the effect of time measured in years as well that people when making behavioral intention statements do not take into account all of their switching costs or obstacles. This opens up a number of problem areas with the current customers, however it also enables construction of many acquisition strategies.

Involvement in mobile services and mobile phones purchase involvements drive up the risk of customers leaving. Therefore the attempts of educating customers and getting them involved can have a counterbalance effect. However when customers develop ego involvement towards their phones it increases the likelihood of retaining them. Therefore it is vital for service provider to understand that helping customers understand the new technologies and services can be damaging, but more importantly enhancing emotional attachment of customer to the mobile phone as the materialization of the service brings greater loyalty.

It was also confirmed that the customer characteristics indeed matter, however they do not influence the propensity to switch directly, but through other constructs. Understanding the real

relationships between constructs driving switching enables proper allocation of resources and better executed marketing activities.

Limitations and future research

Presented empirical study has some limitations, which limit generalizability of its findings as well as open up suggestions for future research. As the study was limited to a single country we cannot exclude the impact of country specific factors, such as legislation, maturity of the market and regulators roles. This could be solved with multi-country study, which would help to control for the above mentioned effects, however this might prove hard as legislation was not being introduced simultaneously and given the rapid development of the industry it might hinder the validity of results.

In addition to study the mobile telecommunications sectors, future research might also explore other combinations of services and products, for instance the relationship between the internet service provider and the router or banking services and credit cards. In both these situations the brand of the product (router, fixed phone) is usually not put forward by the service provider and neither are producers aiming at brand building. It is important to understand how these two situations differ from the end customer perceptions during the acquisition process, consumption process and exit or switching process.

As important as exploring these extreme situations of consumption systems is to understand which are the most crucial dimensions on which consumption systems differ. As this empirical results mobile phones even though a product subsystem of a mobile service consumption system play important role in firm customer dynamics, especially as results suggest that they encourage switching. Therefore it is important to understand how subsystems themselves are positioned and how strongly are their brands positioned in consumers minds and not only how they are perceived from the service provider perspective.

7. Appendix - Description of Scales

Usage

How many phone calls or conversations do you do over mobile phone in a typical working day?

Service Experience

How many years have you been using mobile phone services?

Product experience

How many different mobile phones have you had?

Type of relationship

Do you have a contract or a prepaid relationship? 1 = "">»contract", 2 = "">»prepaid".

Past switcher

How many different mobile service providers have you had in the past?

Service budgetary constraint

How valid (1 = not valid at all and 5 = not valid) is the following statement for you: Costs of using mobile phone services present an important obstacle when it.

Product budgetary constraint

How important ($1 = \text{not important at all} < \text{and } 5 = \text{not important} < \text{on the price when } 1 < \text{on the price whe$ purchasing a new mobile phone.

Product Ego Involvement (Cronbach's Alpha = 0.81)

Do you agree with the following statements about mobile telephony (1 = **totally disagree** and 5 = »totally agree«):

- In a way I am attached to my mobile phone.
- You could say that my mobile phone became a part of me.

How valid $(1 = \text{not valid at all} \in \text{not valid at all} \in \text{not valid})$ is the following statements for you personally:

• Without mobile phone I would feel disconnected from the world.

Product purchase involvement: (Cronbach's alfa = 0.65)

How important (1= »not important at all« and 5 = »very important«) is for you the following when purchasing a new mobile phone:

- Mobile phone design
- Mobile phone size and weight
- Mobile phone brand

Service category involvement (Cronbach's Alpha = 0.72)

How valid $(1 = \text{not valid at all} \in \text{not valid at all} \in \text{not valid})$ are the following statements for you personally:

- I am interested in new technologies in the field of mobile telephony
- I am looking forward to new services of mobile telephony in the future

Do you agree with the following statements about mobile telephony (1 = **totally disagree** and 5 = »totally agree«):

• Using mobile phone services is fun.

Customer's Propensity to Switch

If the competitive mobile phone service provider would have a better offer, would you change your current main mobile phone service provider?

Make an estimate on the scale from 1 to 5, where 1 = x would not change at all x and x and x and x are x where x is x and x and x are x in x and x in x and x in would change for sure«.

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