Thesis collection

Attila Endre Simay

Connexions of Consumer Satisfaction, Consumer Trust and Consumer Loyalty in the Hungarian Mobile Telecommunication Services Market

Ph.D. dissertation

Supervisor:

Dr. Ágnes Hofmeister-Tóth, CSc

university teacher

Budapest, 2013
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# Table of Content

I. 1. The relevance of this topic ...............................................................................................................................4

I. 2. Consumer Satisfaction ......................................................................................................................................5

I. 3. Consumer Trust ..............................................................................................................................................6

I. 3.1. The role of trust in front-line employees ..................................................................................................8

I. 3.2. The contribution of trust into the consumer loyalty ...............................................................................9

I. 4. Consumer Loyalty .......................................................................................................................................10

I. 5. Switching Costs ...........................................................................................................................................12

II. 1. The empirical research .................................................................................................................................15

II. 1.1. PLS, as analysing method .....................................................................................................................15

II. 1.2. Sample ....................................................................................................................................................16

III. 1. Consumer loyalty and its connexions with indicators .............................................................................17

III. 1.1. Analysis of hypotheses .........................................................................................................................21

III. 2. Conclusions ..............................................................................................................................................22

III. 2.1. Limitations ...........................................................................................................................................24

IV. References ....................................................................................................................................................24
I. 1. The relevance of this topic

Although many other publications have already involved the consumer satisfaction, consumer trust and consumer loyalty, but much less studies involved all of these three topics in the same research, especially such a study, which suggested casual relationship between consumer satisfaction and consumer trust. So from scientific approach this work brings a study about consumer satisfaction, consumer trust and consumer loyalty in a single study, and suggests casual relationships among them. Previous studies usually treat the consumer satisfaction as a direct antecedent of consumer loyalty (like Turel – Serenko, 2006), or studied the consumer trust next to the satisfaction without consider casual relationship between satisfaction and trust.

On the other hand consumer satisfaction and consumer trust more seems to more emotional factors, while the present study also involves the switching costs, which are more seems to be somewhat more rational factors. Although the connection between the switching costs and consumer loyalty also have been researched previously (like Aydin – Özer, 2005), but the present study examine the effects of switching costs in a more complex model, together with the satisfaction and trust. The previous studies, if they involved any of these further factors, they regularly involved only one of them. For example studies have been published about satisfaction and switching costs how influence together consumer loyalty (like Aksoy et al, 2013; Kim et al, 2004).

So the aim of the present study is to give a complex picture about the topic of consumer satisfaction, consumer trust, and consumer loyalty, but also involves the effect of perceived switching costs of the consumers. The study was taken in the field of Hungarian mobile telecommunication services market, because the market is glutted, which emphasises the importance of consumer loyalty. According to the report of the National Media and Infocommunications Authority Hungary in October 2012, when the empirical research was done, the penetration of mobile services reached 115,5% with the amount of 11.492,000 mobile subscriptions. Three competitor companies are in the market, with the following market shares: the T-mobile with 46,14%, the Telenor with 31,26%, and the Vodafone with 22,74% (NMHH, 2012). The glut in the market means that the companies significantly can acquire new customers from their competitors, thus to maintain or increase the number of subscribers and market share, the consumer loyalty plays major role.
I. 2. Consumer Satisfaction

The consumer satisfaction can appear in the context of a concrete transaction, when the satisfaction is linked with a purchasing action, or it can be a whole satisfaction with the whole brand or company, which involves every calculations, evaluations and experiences from the beginning to now. The whole satisfaction is an overall fundamental marker of the performance of the company in the past, in the present and even in the future. The whole satisfaction aids to lower price sensibility and facilitates preference attitudes (Aydin et al, 2005; Aydin – Özer, 2005; Kuo et al, 2009). But for a newcomer company this satisfaction does not influence its selection, because the lack of direct experience (Rust – Zahorik, 1993).

Consumer satisfaction is appear, when the consumer's previous expectations meet with the perceived performance, or the performance is even higher than the previous expectations, while the performance is lower than the previous expectations, or these expectations do not meet with the performance, the consumer dissatisfaction can be appear. The different levels of satisfaction can be explained by different previous expectations and/or different perceived performances of the services. The less satisfied consumers more tend to switch and look for other service provider (Carpenter, 2008; Hoffman – Bateson, 2006; Hofmeister et al 2003; Kenesei – Kolos, 2007; Kotler – Keller, 2006; Kovács, 2000; Ruyter –Bloemer, 1998; Szántó 2001; Souki – Filho, 2008).

The satisfaction with the transaction can be treated as an indicator of the whole satisfaction, because the whole satisfaction is a mediator between the satisfaction with the transactions and consumer loyalty (Parasuraman et al, 1994). The satisfaction with a transaction is an emotional response to receive a service; however the whole satisfaction is a better indicator of the consumer's intentions and behaviour (Olsen – Johnson, 2003). Because it is unlikely that a single negative experience with a service leads to switch the service provider itself (Rust – Zahorik, 1993). In the whole relationship between consumer and provider, next to the previous expectations, perceived quality and price, the image of the provider also has significance in the relationship (Hetesi, 2003).

According the literature the satisfaction has two different levels. One is the satisfaction with the services, which is the consumer satisfaction within the transactions, which is an emotional response based on comparison between the perceived quality of the service and the previous expectations of the consumer. In many studies the result of this comparison is considered to the perceived value, however not only the perceived value or utility is important, but the perceived costs too, which probably can be the perceived prices on the market. The satisfaction with the services is a comparative judgement about perceived quality of services, the previous expectations and the perceived prices.
Another level is the consumer satisfaction with the whole relationship between the consumer and the company, which contains every previous experience and their evaluations, so every previous transactional satisfaction. That is why the satisfaction with the services influences the satisfaction with the costumer-company relationship. This satisfaction with the relationship is also influenced by the image of the service provider, critical incidents during provide the services and how the company handled consumer complaints.

I. 3. Consumer Trust

A shift can be recognised in marketing from the importance of acquiring new customers to the retention of the present ones. The satisfaction of the consumer does not guarantee the retention of the consumers, the satisfaction is necessary, but sometimes insufficient to create, maintain or enhance consumer loyalty. So the examination of consumer loyalty should involve the role of other factors, such as consumer trust, which has a critical role to enhance consumer loyalty.

Trust is an impression of safety between the partners of an interaction or relationship (Garbarino – Johnson, 1999), a belief that the other party will not abuse the vulnerability of the opposite party (Dwyer et al, 1987), and a willingness to rely on the trustworthy interactional party (Moorman et al, 1993). The trust is a cornerstone of strong long run relationships between consumers and organizations (Garbarino – Johnson, 1999). It helps to reduce the uncertainty and risks in the transaction, in the state of trust the consumer accepts his or her own vulnerability with the positive expectations about the other party's intentions and behaviour (Rousseau et al, 1998). Thus the trust are connected with positive expectations about the other party's intentions and behaviour, and the trust is an intention to rely on the transactional partner with the acceptance of own vulnerability (Singh – Sirdeshmukh, 2000; McKnight – Chervany, 2002).

In order to get profound knowledge and deeper understanding of consumer trust, it is necessary to mention the three dimension of consumer trust. These three dimensions are the trusts in the competency of company, in the benevolence of the company and in the problem-solving orientation of the company. The operational competency involves the seller professional knowledge as an indicator if trust. The consumer expects consistent and competent performance of the service provider. The operational benevolence is an expectation of trustworthy responsibility, as an intention of the company's ethical behaviour. This motivation emphases that the service provider do not behave opportunistic, do not take its own interest ahead of the interest of the consumers. The problem-solving orientation helps to provide to companies, because every problem offer the chance to prove their commitment about service providing and thus create higher level of consumer trust. The consumer distrust with a service provider is directly and strongly correlated with the consumer
dissatisfaction of first problem solving episode (Alhabeeb, 2007; Aydin – Özer, 2005; Santos – Fernandes, 2008; Sirdeshmukh et al, 2002). Therefore the organisational culture should support the creation of consumer trust, the employees should treat the consumers as they themselves would expect to be treated as a consumer (Mitchell, 2005).

If the perceived performance of a service provider is low quality or below the expectations, than this will reduce the consumer trust in the competency of service provider. If a consumer perceives, that the price and received service was fair, then this will enhance the consumer trust in benevolence of service provider (Singh – Sirdeshmukh, 2000). The major importance of trust was found by Santos and Fernandes (2008), who stated that the trust in the company has strong effect on repurchasing behaviour and aim to maintain the relationship between the consumer and the company. The trust was the major most significant indicator of consumer recommendation behaviour, stronger than satisfaction or perceived value. All in all trust seemed to be stronger direct indicator of loyalty, than satisfaction.

Therefore the first hypotheses of the present study also expect that the two level of satisfaction contribute to the consumer trust in the company. So:

**H1(a): There is a positive relationship between consumer satisfaction with the services and consumer trust in the company.**

**H1(b): There is a positive relationship between consumer satisfaction with the consumer-company relationship and consumer trust in the company.**

The more satisfied the consumer with the services, the more likely to have higher degree of trust in the company, because the consumer experience that the company is able to and willing to provide appropriate services, prove its competencies and benevolence towards the consumer, which contribute to enhance consumer trust. And the more likely to believe in problem solving orientation, that the company is able to and willing to solve problems and handle complaints. On contrary if a consumer is dissatisfied with the services, it can lead to doubt in the competencies, benevolence and problem solving orientation of the company, that it is able to and willing to provide appropriate services and less likely to trust in the company itself.

Moreover the more satisfied the consumer with the consumer-company relationship, the more likely to willing to trust in the company. If the consumer-company relationship is considered to be appropriate, the consumer is more likely to evaluate the operation of the company competent, regards the company benevolent than opportunistic, and think the problem solving orientation satisfactory, that the company is able to and willing to handle problems and complaints. On
contrary, if the consumer consider to the consumer-company relationship inappropriate, do not satisfied with it, than less likely the consumer trust in the company.

**I. 3.1. The role of trust in front-line employees**

The behaviour and management of front-line employees likely to have key role in consumer trust. The trust in the service provider has two aspects, one of them is the trust in the front-line employees, another one is the trust in management practise, practically the trust in the company itself. This is suggested by the fact, that satisfaction also can be related by a contact person, the service itself and the organisational level (Alhabeeb, 2007; Sirdeshmukh et al, 2002). The satisfaction with the services and the satisfaction with the organization have been discussed previously. The contact person is an employee of the company, with whom the consumer gets into contact as a representative of the company. The appropriate behaviour of the employee fosters the trust in the front-lintel employees.

The three dimension of consumer trust also can be examined in the aspect of trust in front-line employees. The trust in seller person is as a feeling is a feeling of safe to rely on the seller. The trust as a cognition is a belief that the seller person has the necessary competencies and motivated to can be rely on him or her, which is aid by the competencies, include abilities, skills and professional knowledge. The previously discussed dimension was the benevolence, the benevolence of seller person is important, to be motivated to protect the interest of the consumers. The consumers more tend to attach benevolence those seller people, who are similar to them, so to create trust is a combination of features and behaviour of seller person (Swan et al, 1999).

The competencies of employee are both hygienic and motivation factor, so it can build or ruin trust. The benevolence of employee is more likely to be hygienic factor, so the lack of it can decrease or ruin consumer trust. But the problem-solving orientation of employees can significantly build trust in the employees, and contribute to overall trust (Sirdeshmukh et al, 2002). The basement of consumer trust includes positive attitudes, that the seller person is perceived to be reliable, honest, competent, likeable and consumer oriented (Swan et al, 1985).

Santos and Fernandes (2008) examined banking and airline companies got the conclusion, that the trust in the employees contribute to the trust in the company, which has direct influence on repurchasing behaviour and word of mouth, so on the consumer loyalty. So in my study I also consider that the trust in the employees contribute to the trust in the company, so through trust in company has an indirect effect on consumer loyalty. The consumer more trust in the front-line employee, with whom he or she get into direct interaction as a representative of the company, the more likely to have trust in the company. The front-line employees as the representatives of the
company, the more can and willing to satisfy the consumer's needs, prove their competencies, benevolence and problem solving orientation, the evaluation of the consumer will be better about the company, and more willing to extend his or her trust in the whole company.

**I. 3.2. The contribution of trust into the consumer loyalty**

In summary both the trust in the front-line employee and the trust in the company have positive relations with the loyal purchasing and cooperation, both level of trust have positive influence on repurchasing intentions, which foster the future relationship (Kennedy et al, 2001). The basement of the relationship, that both sides perceive the relationship mutually beneficial, so the trust and commitment have important role, which are mainly subjective conceptions. In order to create long-run relationship, it is necessary to receive consumer satisfaction with the relationship and build trust (Wong – Sohal, 2002).

It is necessary to create and maintain trust in order to a successful long-run relationship. Because the sellers and buyers participate in many mutual interactions, thus the behaviour of sellers can be the basement of trust in how the sellers will behave in the future. The high level of trust in a long-run relationship contributes to corporate competitiveness, and decreases the transactional costs (Doney – Cannon, 1997). The consumer trust based on direct experiences and evolves in time. The trust helps to reduce tensions and conflicts, foster to share information, increase accordance and encourage future transactions (Dwyer et al, 1987). According to a study about online sales, researchers found that the trust contributes to purchasing intentions and attitudinal loyalty. The trust in a concrete transaction, which is influenced by trust in the seller, has a key role in purchasing intentions (Hong – Cho, 2011).

In the ordinary comprehension the quality of the product or services pave the way into the consumers, contributes to consumer satisfaction, which lead to consumer loyalty. But the consumer-product-company chain conception can be a consumer-company-product chain, when the consumer trust has a key role to create relational commitment between consumers and companies. The consumer who is satisfied with the purchasing start to feel trust in the company, and this leads to consumer loyalty. Because the consumer trust generates repurchasing behaviour, which is an aspect of loyalty (Alhabeeb, 2007). The satisfaction in this way can be considered as an indicator of trust. Because the long-run relationship needs commitment, and the satisfaction has not direct effect on loyalty, but through consumer trust and commitment (Lichtlé – Plitchon, 2008).

Therefore it is reasonable to put consumer trust into the complex model, because it is likely to has fundamental role to create consumer loyalty. Presuming that the direct indicator of consumer
Loyalty is consumer trust, and the role of satisfaction is indirect, satisfaction influences loyalty through trust. So the consumer trust is a stronger direct indicator of loyalty, than satisfaction.

**H2: Consumer trust has positive relationships with every aspects of consumer loyalty, and these relationships are stronger, than the direct effects of consumer satisfaction on consumer loyalty.**

This implies that the consumer the more trust in the service provider, the more likely to be a loyal customer of the company, which means that more likely to maintain a long-run relationship with the company, recommend the company to others and has positive attitudes towards the company. To maintain a relationship also have some different aspects, such as repurchasing intentions, resistance into competitive offers and price tolerance, so the consumer, who trust in the company more likely to buy services from the company again, resists to other offers, and more tolerate about prices. On contrary, the decreasing of trust, or increasing of distrust will facilitate the consumer to terminate the relationship, to do negative word of mouth and to have negative attitudes towards the service provider.

**1. 4. Consumer Loyalty**

Loyalty is a favourable attitude or behavioural response of the consumer toward one or more brand within a time period. In the two dimensional loyalty approach: the loyalty can be examined as the frequency and volume of purchase, and the share of a brand within total purchase of the category. Loyalty means constant repurchase of a brand, and a lot of researchers consider it enough to describe loyalty. But loyalty also contains attitudinal influences. The attitudinal approach means a favourable attitude toward a brand, so it is a deep commitment, intention to repurchase the preferred service or product constantly in the future (Alhabeeb, 2007; Dick – Basu, 1994; Lichtlé – Plitchon, 2008; Oliver, 1999), which in the multidimensional approach also contains the situational elements, and the resistance to the competitive offers in order to maintain the relationship (Bandyopadhyay – Martell, 2007; Oliver, 1999), and reduce the probable switching intentions (Deng et al, 2009). In the multidimensional approach the situational loyalty, the resist of competitors’ offers, the intentional loyalty, attitudinal loyalty and consumer complaints also have roles (Rundle-Thiele, 2005).

The loyalty is not equal with retention, and it cannot be defined by only behavioural patterns (Bodó, 2006). The repurchasing behaviour without favourable attitudes cannot be treated as false loyalty (Dick – Basu, 1994). The attitudinal loyalty involves a psychological attachment, while
simply the repurchasing behaviour not necessary involves any psychological attachment (Carpenter, 2008). Some of these relationships cannot be defined as loyal usage, and it can be anticipated, that the relationship does not have any commitment and strength. The loyalty involves a strong favourable attitude beside the behaviour (Fournier – Yao, 1997). The loyalty cannot be restricted into only one dimension, a repurchasing behaviour of a product or service, because to distinguish the true and false loyalty the attitudes also should be examined. Although the attitudinal loyalty alone cannot predict the behavioural loyalty (Bodet, 2008), but it has a significant positive effect on behavioural loyalty, such as recommendations and portion of purchasing (Carpenter, 2008).

The loyalty has three antecedences, in cognitive level the information to ensure brand superiority, emotional level the pure preference of the brand through repurchasing behaviour, and conative level a strong commitment, intention to repurchase (Jacoby – Chresnut, 1978). The consumer express in his or her behaviour in decision making, evaluating to improve commitment of a brand. Loyalty can be considered as a combination of necessary and sufficient aspects, as prejudice, behavioural response, during times, involve some decision units, and select one or more, in a psychological process (Jacoby – Kyner, 1973). The loyal purchasing generates bigger market share of the company, while the attitudinal loyalty allows the company use higher relative prices (Chaudhuri – Holbrook, 2001). The product should demonstrate, that is valuable, the company should demonstrate its reliability and ability to acquire the heart, trust and loyalty of its consumer to achieve success (Alhabeeb, 2007).

In summary, the loyal consumers like the products, services, often purchase them, and reckon they worth the prices, better than the competitive others, they features match with the consumers requirements, needs, and the consumers recommend them (Hetesi, 2007). Behavioural aspect beside the repurchasing and reusing, the recommendations are also have key role in loyalty, that how likely the consumers recommend the product, the services or the company to others (Hetesi – Rekettye, 2001). A mobile service provider with awarding programs can create personal relationship with its subscribers, which help to retain the consumers, even if the competitors offers them lower prices and further benefits (Kim et al, 2004).

So the measurement of loyalty is possible in more dimensions, as the consumer commitment, intention to repurchase. Willingness to recommend the preferred product or service to friends and to the social environment (word of mouth) in the future. Motivation to maintain a long time relationship with the firm, resist switching for competitors offers. Repurchase again and again despite negative effects in some cases, and the switching incentives created by marketing. Transfer larger share of income to a specific service provider (Alhabeeb, 2007; Aydin – Özer, 2005; Hetesi, 2003; 2007; Lee et al, 2001; Rothenberger et al, 2008; Santos – Fernandes, 2008; Sirdesmukh et al,
2002; Turel – Serenko, 2006). Other authors consider only the ultimate level of loyalty means that the consumer maintain the relationship in any circumstances, maintain repurchase intention with any prices, and able to make efforts, sacrifices for the relationship (Bloemer et al, 1998; Prónay, 2008).

Corresponding with the literature findings in the theoretical frame of the present study the consumer loyalty is measured as maintain the relationship with company as a consumer commitment, which involves the repurchasing behaviour, resist to competitive offers and higher price tolerance. Another behavioural aspect of loyalty is the consumer recommendations, as a positive word of mouth. An attitudinal dimension is also added into the model, as the loyalty involves favourable attitudes towards specific service provider. Thus the second hypothesis can be divided into three sub-hypotheses:

**H2(a):** Consumer trust has positive relationships with the maintenance of consumer-company relationship, and this relationships are stronger, than the direct effects of consumer satisfaction on maintain this relationship.

**H2(b):** Consumer trust has positive relationships with consumer recommendations, and this relationships are stronger, than the direct effects of consumer satisfaction on consumer recommendations.

**H2(c):** Consumer trust has positive relationships with consumer preference, favourable attitudes, and this relationships are stronger, than the direct effects of consumer satisfaction on consumer preference, favourable attitudes.

### I. 5. Switching Costs

Besides the behavioural intentions, the loyalty is also influenced by other factors, which obstruct the consumers to terminate the relationship with company, make more difficult and costly to switch (Fornell, 1992; Jones et al, 2000). Those obstacles are the interpersonal relationships, the perceived and real switching costs, market barriers, the lack of prospective competitors or the perceived risk to switch (Lichtlé – Plitchon, 2008; Sirdeshmukh et al, 2002). Switching costs includes every beneficial lost caused by switching a product or service (Maicas et al, 2009). The perceived switching costs are the highest for those consumers, who have never switch service provider previously, because they have no previous knowledge about is. So they become the most loyal consumers to their service providers (Ganesh et al, 2000).
Perceiving switching costs generate dependency. The costs of terminating a relationship could lead to continue the relationship and generate commitment about the relationship (Morgan – Hunt, 1994). The higher the dependency and the commitment is, the consumer more likely to remain in the relationship (Ganesh et al, 2000). The higher switching costs are in the market set up by service providers, the more consumers are captured to remain in relationship with their service providers. This give chance the service providers to raise prices without lose significant amount of customers (Shin, 2007), which distort the price elasticity, and give monopole power to the companies against consumers (Klemperer, 1987).

Therefore when the consumer behaviour is discussed, it is necessary to mention the role of switching costs. The switching costs include benefits to the companies, because they help to reduce price sensibility of consumers, and the consumers’ sensibility about satisfaction. Reducing the effect of price sensibility enhance to lose consumers because of short run changes within service quality (Fornell, 1992). The switching costs differentiate the market, the previously homogeneous market become heterogeneous thanks to switching costs (Klemperer, 1987), so the high switching costs make more difficult to change among service providers after one was chosen (Aydin – Özer, 2005, Lee et al, 2001). A study about the Korean mobile service market suggest to raise switching costs can build long run relationship with the consumers, increase the retention of subscribers (Kim et al, 2004).

The switching costs also influence the consumers' quality elasticity, which influence the satisfaction-loyalty link. (Anderson – Sullivan, 1993). Although I reckon the switching costs cause only behavioural loyalty, which described by Lichtlé and Plichon (2008) as consumer retention instead of loyalty. Retention means to maintain the relationship with the specific service provider. The service provider can tie their consumers into the relationship, so the dissatisfied and disloyal subscribers is continue to use the services, and ensure the high retention rate of service providers (Turel – Serenko, 2006). The switching cost effect on switching decision is stronger, than the effect of satisfaction or demography (Shin – Kim, 2008).

The costs of the consumers can be divided into more types, and different scholars identified differently those types of costs. Klemperer (1987) distinguished transactional, learning and artificial or contractual costs. Those contractual costs are a part of corporate strategy to obstruct consumers' switching behaviour (Shin – Kim, 2008). Burnham et al (2003) the switching costs can be procedural, material or relational. Financial costs are present, because every product and service have price in a transaction. Temporal costs represents that every purchasing needs time and energy expenditure from the consumers (Farkas, 2003).
Similarly the switching costs means financial costs, which can be a single financial expenditure or a direct beneficial loss as lose some discount. The time and energy expenditure as switching can appear as an evaluation cost to identify a new service provider, which needs time and energy, not just money. To set up a relationship needs time and energy. Learning costs also can appear to learn new skills, procedures in order to use of new product or service. Psychological costs represents that the switching contains risks, if the information is not enough or the performance is difficult to evaluate, the consumers' switching intention is become lower (Aydin – Özer, 2005). Remain in the relationship, keep loyalty has the advantage to reduce risks and some other positive externalises (Lichtlé – Plitchon, 2008). The loyal behaviour of the consumer help to avoid risks, the perceived costs of risks of switching. The role of switching costs the following hypothesis is set up:

**H3:** Perceived switching costs have positive relationship with maintenance of consumer-company relationship, and perceived switching costs can reduce the role of trust to support the maintenance of consumer-company relationship.

Figure 1: Summarising framework of consumer satisfaction, trust and loyalty

The higher the a switching cost, or the switching costs altogether, the consumers are supposed to more likely to maintain the relationship with the service provider company, because the switching costs make more difficult to switch among service providers. Therefore the switching costs are able to influence the behavioural loyalty of the consumers as the maintenance of the relationship, but it is not supposed that these costs influence consumer recommendations or favourable attitudes and create preference. The lower the perceived costs of switching, the more
likely to do not create barriers to switch, and the consumer more easier can terminate the relationship with the service provider.

II. 1. The empirical research

The quantitative research was done by online survey, which aimed to do fast data collection and reach more numerous sample size within short time. The online survey was also suitable to ask mobile service users. Because according to previous surveys, the proportion of Internet users in Hungary reached 55% in the end of 2009, and some sub-sample especially higher the penetration. The age group of 15-24 the proportion of users is 84%, while the age group of 25-34 it is 67%, so the younger generations mainly belongs to Internet users. The age group above 50 years have lower proportion, than the county average, only 25% of them are regular user. The proportion of Internet users is the highest in Budapest, and as the size of the living place decrease, the proportion of users also decrease. In Budapest 79% of people is a regular user, while in villages only 40% (NRC, 2010). The penetration of mobile phones shapes a very similar picture, because above 15 years only 23% of the citizens do not have mobile device, and 3% have more than one devices. The age group of 15-24 the penetration is practically full, the age group of 25-44 it is nearly 90%, while the age group above 70 years the proportion of mobile users is 31% (BellResearch, 2010). So the online survey make it possible to reach the majority of mobile service subscribers.

The final empirical survey was done by NRC to collect answers from 300 people among the Hungarian Internet users, which sample is representative to sex, age, education background and living place. Corresponding with the topic of the research the Hungarian mobile service providers proportions are very similar to in the sample to the current Hungarian situation. The data collection was done from 24th to 28th October 2012, the short period of data collection aimed to avoid distortions caused by time.

II. 1.1. PLS, as analysing method

PLS is similar to regression, but simultaneously models the structural paths (theoretical relationships among latent variables) and measurement paths (relationships between a latent variable and its indicators) (Chin et al, 1996). Powerful feature of PLS path modelling is that it is suitable for prediction-oriented research. Thereby, the methodology assists researchers who focus on the explanation of endogenous constructs. PLS delivers latent variable scores, i.e. proxies of the constructs, which are measured by one or several indicators (manifest variables). PLS path modelling avoids small sample size problems and can therefore be applied in some situations when other methods cannot. PLS path modelling can estimate very complex models with many latent and
manifest variables. PLS path modelling has less stringent assumptions about the distribution of variables and error terms. PLS can handle both reflective and formative measurement models. PLS’ lack of a global optimization function and consequently measures of global goodness of model fit. The traditional criterion for internal consistency is Cronbach’s Alpha (Cronbach,1951), which provides an estimate for their liability based on the indicator inter-correlations. While Cronbach’s Alpha assumes that all indicators are equally reliable, PLS prioritizes indicators according to their reliability, resulting in a more reliable composite. The composite reliability takes into account that indicators have different loadings, and can be interpreted in the same way as Cronbach’s Alpha. (Henseler et al, 2009).

II. 1.2. Sample

The sample has 153 men (51%) and 147 women (49%) participants, so the proportion of genders nearly the same. The age groups in the sample has the following distribution: group 15-29 year old has 108 (36%), group 30-49 has 125 (41,7%), group 50-69 has 67 (22,3%) respondents. The average age of the sample is 38,03 years, and the median score is very near to this value with 37 years. The residency proportion shows that 61 respondents (20,3%) live in the capital city, Budapest. The majority of the sample live in other cities, 155 respondents (52,7%), while 81 respondents (27%) live in towns and villages. The regional distribution shows that 99 respondents (33%) live in the Central Region, 36 respondents (12%) live in the Northern Region, 39 respondents (13%) live in the Northern Plain Region, 44 respondents (14,7%) live in the Southern Plain Region, 25 respondents (8,3%) live in the Southern Transdanubia Region, 32 respondents (10,7%) live in the Central Transdanubia Region, and 25 respondents (8,3%) live in the Western-Transdanubia Region.

The majority of the sample has elementary or high school as highest educational background. 111 respondents (37%) have elementary educational background, 113 respondents (37,7%) have high school educational background, while 76 have (25,3%) college or university educational background as highest one. The most numerous group of respondents consider his or her own financial situation belongs to the Hungarian average, they were 133 people (44,3%).More people consider his or her financial situation is lower or much lower than the average, than higher than the average. 65 people (21,7%) considered lower, 48 people (16%) considered much lower his or her own financial situation than the Hungarian average, while 40 people (13,3%) consider higher and only 5 people considered much higher to his or her own financial situation than the country average. 9 people cannot decide.
The data collection also asked question about the current mobile service usage beside demographical questions. The proportion of the service providers were near to the service providers current market shares, so 133 respondents (44.3%) was the subscriber of T-Mobile, 96 respondents (32%) was the subscriber of Telenor and 71 respondents (23.7%) was the subscriber of Vodafone. The significant majority of the sample have only one subscription with 214 respondents (71.3%), and the other 86 respondents (28.7%) have more than one subscriptions. For those, who had more than one subscription, the research questions asked the main subscription. The significant majority of the sample have post-paid subscription with 235 respondents (78.3%), and the other 65 respondents (21.7%) have pre-paid subscription. The monthly cost paid for mobile services, practically the monthly bill has the average value of 6182 HUF, the median value with 5000 HUF, so half of the sample spend less, another half spend more than this amount of money for mobile services. One fourth of the sample spend less than 3000 HUF, another one fourth spend more than 7875 HUF in a month for mobile services.

III. 1. Consumer loyalty and its connexions with indicators

The results were measured by the SmartPLS 2.0 (Ringle et al, 2005). I also used and tested the previous model, so 300 iterations were done to measure the correlations between the latent variables. The significance test based on bootstrapping to test the connections between the model components, so 200 subsamples were generated, which tend to provide reasonable standard error estimates (Chin, 2001). PLS was used to analyse the theoretical framework, which was constructed based on literature review. In this model consumer satisfaction contributes to consumer trust, and the trust in company contributes to various aspects consumer loyalty. On the other hand the model also contains the effects of switching costs on consumer loyalty. This model aimed to test the hypotheses and every previous connexion between the variables.

The results suggest that consumer satisfaction with the services has no direct effect on consumer trust in the company, which implies that the relation supposed in H1(a) hypothesis is incorrect. As the theoretical framework suggested the switching costs have no significant effect on consumer recommendations as a dimension of loyalty. The satisfaction with the services shows strong relationship (0.797) with the satisfaction with the company, so if a consumer is satisfied with the services, very likely to be satisfied with the whole relationship with the company. But the satisfaction with the services has no significant effect on consumer trust in the front-line employees or consumer trust in the company. No direct significant effect on any trust variable in the model, so the analyses suggest to consumer satisfaction with the services do not influence significantly consumer trust.
The satisfaction with the consumer-company relationship has a bit weaker than intermediate (0.406) influence to consumer trust in company, which suggest to accept the H1(b) hypothesis. However the satisfaction with the consumer-company relationship has strong influence (0.758) to the consumer trust in front-line employees, which indicates an additional indirect effect on consumer trust in service provider. Because the consumer trust in front-line employees has a bit stronger than intermediate (0.568) effect on consumer trust in the company. So the satisfaction with the consumer-company relationship has direct and via consumer trust in front-line employees also has an indirect effect on consumer trust in the company, which corresponds with the H1(b) hypothesis.

The model testing shows that consumer trust in the company is a very important indicator of consumer loyalty, because it has stronger than intermediate effect on each and every dimension of consumer loyalty. The effect on consumer retention in the relationship is stronger than intermediate (0.672), but the effect on consumer recommendations and preference are strong (with 0.804 and
These results correspond with the H2 hypothesis, and its sub-hypotheses, that the consumer trusts contributes to consumer loyalty.

The effect of front-line employees of service providers on consumer loyalty was also tested, but the result shows this effects on the different dimensions of loyalty are weak and insignificant, even reduce the direct effect of trust in the company. So the effect of front-line employees on loyalty are indirect, through the consumer trust in the company can influence the consumer loyalty.

The importance of trust is significant, because on the other hand the switching costs direct effect on consumer retention, to maintain the relationship with the company, is weak (0,135). However unexpectedly the switching costs also shows a weak (0,119), but significant relationship with favourable attitudes, preference as a dimension of consumer loyalty. The switching costs also influence the strength of trust-loyalty link in this dimension from 0.839 to 0.800. The H3 hypothesis also considered to be true, because the switching costs and consumer retention has significant connexion, however the switching costs effect on other loyalty dimension is weaker or even does not exist.

According to the third hypothesis also suggest, that switching costs also reduce the strength of trust influence on loyalty, so the model was tested without switching costs. As it was supposed, if the model does not contain the switching costs, the consumer trust in the company has stronger effect on to maintain the relationship with the company as a dimension of loyalty, the strength increase from 0,672 correlation value to 0,716. This result corresponds with the H3 hypothesis, which suggests that switching costs have not only effect on to maintain the relationship with the company, but they reduce the effect of trust into this loyalty dimension too.

In the second step, the model was changed, and the consumer satisfaction was considered to be an antecedent of consumer trust to test the H2 hypothesis, that whether the consumer trust is a better indicator of consumer loyalty compared with consumer satisfaction or not. So in this second model the satisfaction was considered as a direct indicator of consumer loyalty dimensions.

The results suggest that the consumer trust in front-line employees has no direct connexion with the satisfaction with the consumer-company relationship. The bootstrapping shows insignificant link. But the role of trust in front-line employees has stronger effect on consumer trust in the company, than the original model and the connexion become strong (0.876) in this alternative model. The consumer trust in company has stronger effect on satisfaction with the consumer-company relationship, than inversely in the original model. This effect is intermediately strong (0.557). Moreover the trust in company have strong effect on (0.703) consumer satisfaction with the services, although in this alternative model the satisfaction with the services have weaker effect on
the satisfaction in company level, than it was in the original model. The effect is bit weaker than intermediate (0.403).

Figure 3: The test of trust-satisfaction-loyalty connexion.

But when the satisfaction was considered the direct indicator of loyalty dimensions, the satisfaction with the consumer-company relationship has weaker effect on every loyalty dimensions, than consumer trust in the service provider has as a direct indicator. The significant effect of satisfaction on to maintain the relationship with the company is stronger than intermediate (0.638), the effect on consumer recommendations and the effect on preference are strong (respectively 0.770 and 0.729). When the satisfaction as the direct indicator of loyalty, the effect of switching costs on consumer loyalty also increased, however those effects remain weak. The switching costs effect on to maintain the relationship remains weak, but increased (0.181) compared with trust as direct indicator, while the effect on preference remains the same (0.119).

So the satisfaction and the trust mutually influence each other, and the effect of trust on satisfaction is stronger, than inversely the effect of satisfaction on trust. But if the consumer trust is considered to be the direct indicator of consumer loyalty dimensions, the effect of trust on loyalty is
stronger in every dimension than the effect of satisfaction on loyalty. Consumer trust also decrease the effect of switching costs on consumer loyalty, compared with satisfaction. Therefore the consumer trust is a better direct indicator of consumer loyalty, than consumer satisfaction, which result corresponds with the H2 hypothesis.

III. 1.1. Analysis of hypotheses

The first group of hypotheses suggests that the consumer satisfaction have positive relationship with consumer trust in the company. But the results shows, that the H1(a) hypothesis is rejected, because the satisfaction with the services has insignificant effect on consumer trust in the company, on the contrary the trust in the company has significant effect on the satisfaction with the services.

The connexion supposed by H1(b) hypothesis is significant, a bit weaker than intermediate, so this hypothesis is accepted. The satisfaction with the consumer-company relationship contributes to the trust in the company. This company level satisfaction also has significant effect on the trust in the front-line employees, so beside the direct effect, the company level satisfaction through the trust in the front-line employees also has an indirect effect on consumer trust in the company. But it is necessary to note, that the trust in the company also contributes to the company level satisfaction, so it is not a one-way connexion.

The satisfaction with consumer-company relationship both has direct and indirect effect on consumer trust in the company, but the consumer trust in the company also has a direct and through the satisfaction with services an indirect effect on consumer satisfaction with the consumer-company relationship. So the data suggest that the connexion between consumer satisfaction and consumer trust is mutual, which makes the H2 hypothesis more important to decide which variable is a better indicator of consumer loyalty. The sequence of satisfaction and trust cannot be judged based on the connexion between these two variables, so the effect on loyalty give suggestion about the sequence, which is the direct and which is an indirect antecedent of consumer loyalty.

The second group of hypotheses H2(a), H2(b), H2(c) are considered to be true, and accepted, because positive significant connexions were found among the consumer trust in the company and the three examined dimensions of consumer loyalty. These connexions are not just significant, but also strong, so the consumer trust in the company have serious effect on consumer loyalty. The subscribers, who trust in the mobile service provider, are very likely to be loyal to the company.

Moreover the consumer trust in the company is a stronger indicator of consumer loyalty in all three dimensions, than consumer satisfaction with the consumer-company relationship, so the direct connexion between trust and loyalty is stronger than the direct connexion between satisfaction and
loyalty. The results suggest that the consumer trust in the company have strong effect on the maintenance of the relationship, through consumer recommendations create positive word of mouth and feel favourable attitudes, preference towards the service provider company. The consumer trust in the company is a better direct indicator of consumer loyalty, so the consumer satisfaction is more reasonable to be considered as an antecedent of consumer trust, and through consumer trust has effect on consumer loyalty.

The other aspect of consumer trust, which was measured in the model, is the consumer trust in front-line employees, but it has no significant effect on any loyalty dimension in the empirical research. Meanwhile the trust in front-line employees has stronger than intermediate effect on the consumer trust in the company, so the consumers trust in the front-line employees effect on consumer loyalty is indirect, through the consumer trust in the company can enhance consumer loyalty.

The PLS analysis of connexion suggests to accept the H3 hypothesis, because the perceived switching costs can significantly influence the maintenance of consumer-company relationship to continuously use the mobile services of a single provider. However it has to note, that this connexion is weak, much weaker than the effect of consumer trust. On the other hand the switching costs can reduce the importance of consumer trust a little to maintain the relationship with the company, because consumer trust has stronger effect on loyalty if switching costs are missing from the model. Therefore the switching costs, as perceived barriers can influence the subscribers to maintain the relationship with the company, and these perceived barriers reduce the effect of trust on loyalty.

Unexpected result of the empirical research, that the switching costs do not only influence the maintenance of relationship loyalty dimension, but they also influence the favourable attitudes, preference dimension of loyalty, and influence the effect of consumer trust in this loyalty dimension. Although the relationship is very weak, but switching costs, as perceived switching barriers can influence the mobile service users to have favourable attitudes, prefer their service providers, and influence the effect of consumer trust on their attitudes.

**III. 2. Conclusions**

The structural analysis in the Hungarian mobile telecommunication service market was done by PLS path modelling, and it suggests that the consumer trust is a better indicator variable of consumer loyalty than consumer satisfaction. If the consumer trust has direct link with loyalty, the relationships are stronger in every dimension of loyalty, than the direct relationships between satisfaction and loyalty. Another important fact is that the trust also a better indicator of loyalty,
because it reduce the effect of switching costs on the dimensions of loyalty. So consumer trust also reduces more the role of switching costs to influence consumer loyalty, than satisfaction does.

Only focusing on significant correlations the order of consumer satisfaction with consumer-company relationship and consumer trust in company cannot be judged, because these two items mutually influence each other. The interpretation of the results rather based on the strength of connexion with consumer loyalty, and the strength of effect of switching costs on loyalty dimensions. Those results suggest that the consumer satisfaction rather through consumer trust contributes to consumer loyalty, than directly. So consumer trust in the company is the direct antecedent of loyalty. The trust in front-line employees neither has direct contribution to consumer loyalty, it also through the trust in company enhance loyalty.

The effects of switching costs on consumer loyalty are much weaker than the effect of consumer trust, but the effect is significant on two of three loyalty dimensions examined in the research. The switching costs also reduce the strength of trust-loyalty link. Therefore the perceived barriers also contribute to maintain consumer relationships with the service provider, and facilitate favourable attitudes, preference towards the company.

An important message of this study to the mobile service providers, that the consumer trust plays key role to maintain consumer loyalty, enhance loyalty to the company. Of course the good service quality should be provided in order to receive consumer satisfaction with the company, which has major effect on to enhance consumer trust.

Also an important message that companies should take care about the front-line employees and their performance, because the consumer trust in the front-line employees directly contributes to the trust in the company. The consumers, who trust in the service providers, more likely to maintain the relationship with the company, which aim to maintain the market share. The maintenance of the relationship also contains the price tolerance, so retention can be caused by not only financial reasons. If a new company enter the market, the present companies can keep their positions thanks to consumer trust in them.

Beside to keep market share, to enhance consumer trust is also give an opportunity for mobile service providers to acquire market share, because the subscribers, who trust in them, more likely to recommend the operator to others. Consumer recommendations can pave the way to acquire new subscribers, which also means financial benefit to the service providers. The subscribers, who trust in the company, more likely to prefer it and have favourable attitudes towards it too.

Meanwhile the switching costs also have a role to facilitate loyalty beside the consumer trust, however their effect on loyalty much weaker. Financially can be reasonable create financial punishment to make switching behaviour more expensive to subscribers, and create other perceived
barriers in order to enhance consumer retention and influence consumer preference and favourable attitudes towards the company.

The marketing activities of the service providers should have special care about get and keep consumer trust of their subscribers in order to consumer retention. Important to emphasise in the marketing communication messages should be capable to enhance and maintain consumer trust, the company should show a trustworthy image of the company to the consumers. During the consumer-company interactions let the subscribers feel trust in the company, include the front-line employees, with competent, helpful image, who are able to and willing to deal with the problems and questions of the consumers. This enhances to give the consumers a competent and helpful image of the whole company, which is needed to get consumer trust.

The appropriate quality of services is needed, and let the consumers acknowledge it, so the communication messages the technology proficiency and perfect quality of services also should be emphasised. The company should handle with care consumer complaints, makes the possible critical incidents as a positive episode, rather than a negative one. The consumers who are satisfied with the whole relationship with the company more likely to feel trust in the company and remain the subscribers of the same company.

III. 2.1. Limitations

About the interpretations of the results of the research some limitations should be noted. The results of this research come from the Hungarian mobile telecommunication services industry, which indicates that the extension of the results needs further studies. The sample of the research was the Hungarian Internet user society, the results are representative to this sample, but further research would be necessary to other national and international comparisons. The interpretation of the results is also restricted by the cross sectional research methodology, which means that the links and correlations between the variables can change in time. Understanding the dynamic of these connexions needs longitudinal research methodology.

IV. References


