

# Customer Continuity Management as a Foundation for Churn Data Mining

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## Abstract

This report lays the first theoretical foundations for a research program on analytical churn management. In the current hypercompetitive business scenario, firms have to bend over backwards in their strategies both to retain their customers and to lure those from the competition. For this reason, understanding how customer loyalty construction mechanisms work, anticipating the customer's intention to abandon a service provider, becomes a critical business acumen to ensure a company's continuity in the market. To this end, in this report we propose a complete customer loyalty management model referred to as *Customer Continuity Management*.

This type of knowledge can always be qualitatively obtained, but quantitative analysis of actual customer data should increase the certainty on its reliability and business actionability. This is why Data Mining techniques, applied to market surveyed information, can provide valuable assistance to churn (customer attrition) management processes.

This report focuses on the prevention side of customer loyalty management and, especially, on customer satisfaction and switching barriers. Some of principals existing explanatory models of customer loyalty building are review in detail.

## 1. Introduction

The ongoing processes of globalization and deregulation are changing the competitive framework in the majority of economic sectors. The appearance of new competitors and technologies has produced a sharp increase in competition and a growing preoccupation among service providing companies with creating stronger bonds with customers. Many companies are shifting resources away from the goal of capturing new customers and are instead focussing on retaining existing ones. In this context, understanding how customer loyalty construction mechanisms work, anticipating the customer's intention to abandon and facilitating the launch of retention-focussed actions therefore represents a clear element of competitive advantage.

In this scenario of growing competitive pressure, where all companies fight over their customer portfolios, the possibilities of commercial development and, consequently, of adding value to the company, require to prolong the useful life of customers and their average consumption. In this way, a defensive commercial strategy oriented to retain and create loyalty bonds in existing customers is much more effective, and less costly, than an aggressive strategy that tried to expand the overall size of the market, attracting potential customers. The pressure towards increasing the market share has therefore shifted towards increasing customer share. As a consequence, it is not surprising that many companies are beginning to modify their commercial paradigm, moving from the massive capture of new customers to the conservation of existing ones.

However, this struggle for achieving customer loyalty collides with the exposure that customers face every day to floods of widely-advertised offers from competitors. The customers' knowledge level constantly improves and, as a result, so does their exigency. In this environment, the importance of understanding the underlying mechanisms of building loyalty bonds becomes extremely important to ensure the continuity of the company in the market.

Companies have their customers as their main assets, and as a consequence, they are responsible for the definition and implementation of policies that allow them to reach and prolong their maximum commercial development potential. In other words, they must prolong

as much as possible the life expectancy of their customer portfolio and assure its adequate development in terms of value, through the development of suitable commercial actions for each one of the stages on the lifecycle<sup>1</sup> (see *Figure 1*).

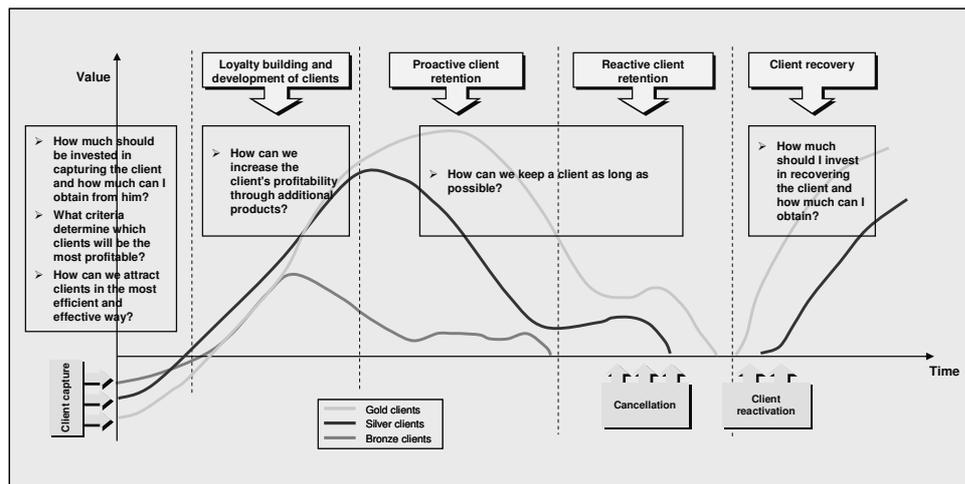


Figure 1: stages in a client's life cycle

Although it's true that both dimensions are intimately connected to a single model of customer value management, we understand that the correct development of customers needs a prior guarantee of its continuity<sup>2</sup>. In this way, customers' life expectancy must be subject to and orientate any commercial action to develop its potential value. The adoption of short-term commercial strategies, more concerned with forcing maximum purchase out of the customer base (which generally yields poor results in the long term) shows high abandonment and dissatisfaction levels which affect the company's good image and reputation. From this standpoint, the first stage of the research program started with this report is the proposition of an appropriate conceptual framework for the management of a company's customer life-cycle through customer retention. It should be taken into account that companies and clients are subject to permanent evolution, which leads commercial relations to be interrupted in a natural way (residence changes, family life cycle, new interests, lack of payment...). Therefore, the final success does not come through artificially prolonging customers' life-cycle, but by making sure that they do not abandon the service provider unduly soon.

The complex task of prolonging customers' useful life cannot be improvised. The creation of loyalty bonds in customers requires a systematic approach to its management. Customers require regular check-ups to identify risks and threats, evaluate their evolution over time, and anticipate preventively the possible symptoms that might alert of a possible defection to the competition and that would require therapy policies (more or less aggressive according to the customer value). Therefore, the adoption of a suitable *Customer Continuity Management* model should make it easier for companies to systematically approach a critical review of all the processes and procedures that affect that the construction of true loyalty bonds with

<sup>1</sup> By increase in services used (up-selling); by increase in consumption or wallet share (cross-selling); through the launch of new products and services (innovation) and/or the adjustment of commercial costs giving each customer as expected.

<sup>2</sup> It can be equally true that the proactive development of the client's potential has a positive impact in the client's level of attachment with the company: clients with a high consumption and value usually have a longer useful life span.

customers, including policies for everyday management, both for the customer life-cycles and for the predicted and declared cases of customer loss (see *Figure 2*). In this context, Data Mining techniques, applied to market surveyed information, should play a key role in helping to understand how customer loyalty construction mechanisms work, and how the customer's intention to abandon could be minimized, facilitating the launch of retention-focussed actions.

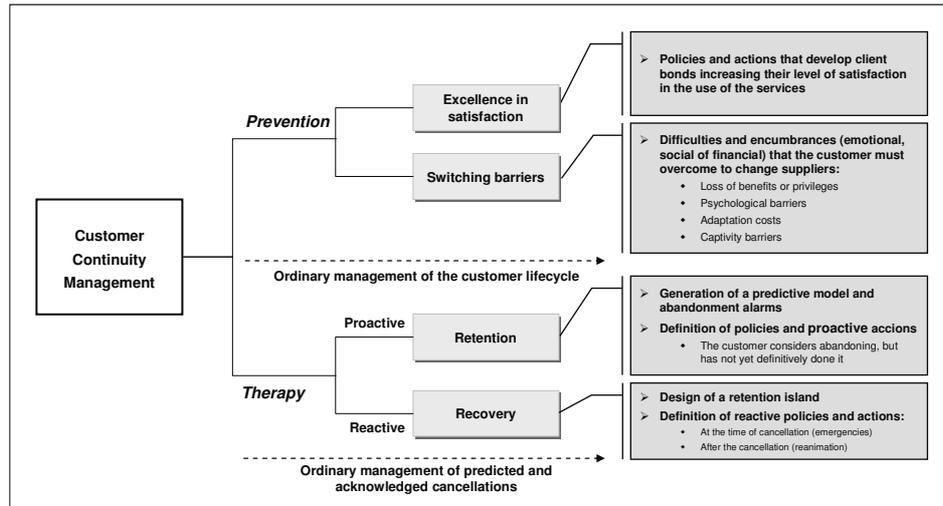


Figure 2: customer lifecycle management model: Customer Continuity Management

As expressed in broad terms in the following bibliographic review, the level of customer bonding and, as a result, their life expectancy, is intimately tied to the level of customer satisfaction relative to the level of service provided by the company. The higher the level of quality that customers perceive in the performance of the service, the stronger the loyalty bonds that are created [21, 51-53, 66, 70]. Thus, consumers who experience high levels of satisfaction in the service received usually continue with their current provider. We usually return to places where we have been treated with friendliness and courtesy; where we feel comfortable; where a “differentiated” product that we like is offered; where our demands are quickly dealt with, and so on.

Thus, satisfaction with the service acts as a base for customer loyalty, consolidating his permanence and avoiding the substitution by another competitor [21, 51-53, 56]. In other words, if a company is able to give its customers a level of service that matches their expectations on an *ongoing basis*, they will not feel the need to change providers. In this way, continuous maintenance and improvement of the opinion that customers have of the service they are provided becomes the best and most efficient way of making them consistently loyal.

However, in some cases, although customer satisfaction has a positive influence on the level of bonding, it does not suffice. There are numerous case in which better service quality does not seem to have an equal impact on consumer loyalty: customers that change mobile phone operators in spite of the fact that their current provider offers greater coverage and/or sound coverage; customers that fill up in slow service stations, with bad accesses and no additional services for the driver; customers who prefer to travel with certain airlines despite the continuous delays to their flights, etc. In consequence, there must be other factors, beyond satisfaction with service, influencing customer loyalty.

At this point, we introduce the concept of *barriers to change* as a construct that should mediate the satisfaction-loyalty relationship [51-53]. When the level of customer satisfaction with respect to different providers is similar, the level of bonding should be expected to

depend, to a large extent, on the nature and strength of the *barriers to change* in place. The existing literature usually portrays the *barriers to change* in a negative sense, as difficulties and burdens -emotional, social or financial- that the customer must overcome when he takes the decision to change providers<sup>3</sup> [36, 51-54, 66]. However, in a market place that is becoming increasingly deregulated and competitive, the understanding of the construction of *barriers to change* as bureaucratic, contractual and/or in some cases, as the result of the abuse of a dominant position, constitutes a short-sighted point of view. Barriers such as penalties when you cancel a given service; problems in the portability of mobile phone numbers; delays in the provision of the new service that are the fault of the old provider; all these are actions that are becoming steadily more regulated and penalised by the market and are not sustainable in the medium term.

To be sustainable, barriers to change must be built, like satisfaction, on customer perception. In this way, the active development of barriers to change becomes an excellence factor, in addition to satisfaction with the service, difficult to overcome by the competitors in their attempt to attract the best and most profitable customers. The construction of policies and procedures that maintain and improve excellence in both dimensions (satisfaction and barriers to change) should act as a powerful *vaccination* to protect customers from being lured by competitors (see *Figure 3*).

However, not all customers need the same level of service, nor are they prepared to pay the same for them; or to obtain them in the same way. Common sense tells us that it is not possible to tackle, in an increasingly inhomogeneous environment, the difficult task of effectively developing the loyalty of all customers. For this reason, starting from the certainty that dissatisfied customers always exist<sup>4</sup>, companies must concentrate their efforts on the development of a *broad spectrum vaccination* program, maintaining and improving those dimensions of the offer and barriers to change that most and best impact on the overall bonding of customers as a group. The objective is not to protect all customers, but rather as many of them as possible and, in particular, those who are most valuable to a given company.

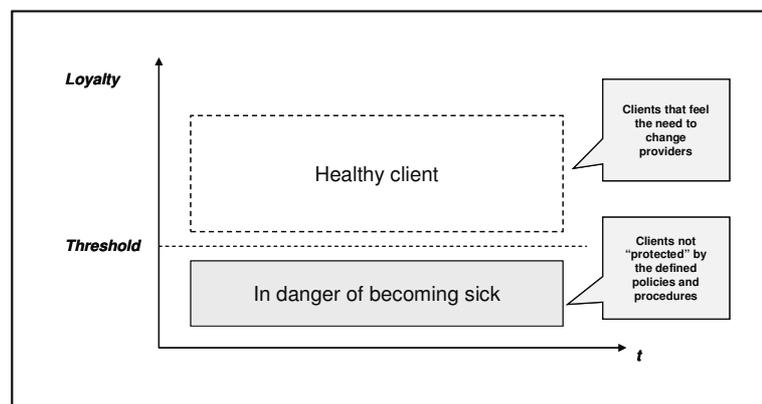


Figure 4: effect of developing satisfaction excellence policies and procedures and positive switching barrier

<sup>3</sup> Term more usually linked to the annoyance that a client must endure when changing to an alternative provider, which due to the additional perks that the company can build on its offer, make the other alternatives less attractive to the consumer.

<sup>4</sup> Clients under the minimum fidelity threshold; that is, at risk of leaving the company.

It has to be born in mind that the protective effect of one such *vaccination* is never permanent. Over the natural life-span of the customers, it is possible that external changes, such as the appearance of new products, variations in competitors' offers, technological changes; and/or internal changes (improvement in the customer's knowledge level or increase in his exigency, socioeconomic changes, etc.) occur, which might affect customers' expectations, and as a result, their level of satisfaction. Companies must watch out for these changes to adapt their policies and procedures so that they can maintain and improve customers' opinions about the service on offer. The process of analysing the dimensions with most impact on the satisfaction and the subsequent adjustment in commercial procedures and policies should become an ongoing process over time.

On the other hand, from an operational perspective, it is not possible, given the high cost involved, to ask all customers from time to time for their opinions<sup>5</sup> on the satisfaction perceived of the service they are being offered and/or their level of bonding. Companies must therefore work with representative enough samples and develop, based on them, appropriate commercial policies. Customers' evolution must be tracked and the number of customers at risk of churning must be estimated. That is why companies must have a reliable prediction model<sup>6</sup> that allows them to identify -with enough anticipation- those clients that show symptoms of propensity to switch service providers and, thus, launch efficient retention actions. Early diagnosis of the propensity to churn will reduce considerably the aggressiveness of the required loyalty bonding treatment and will increase the customer's *recovery* possibilities. In this context, the client's value<sup>7</sup> becomes the fundamental dimension that will determine which type of therapy, proactive and/or reactive, should be applied at any time. This business effort -measured in the form of discounts, benefits and privileges that are offered to the client so that he will dismiss the idea of changing providers- should be balanced against the customer's expected value. This means that there can be clients that we will decide not to retain, even if we have identified in advance their intention to change, since the expected return on the prolongation of their useful life does not justify the cost of the necessary commercial action. Identical criteria can be applied when deciding recovery policies and actions for already lost clients.

In short, in the present research program we intend to deal, from a global and compact perspective, with one of today's most interesting subjects for companies operating in mature and highly competitive markets: the management of loyalty. To this end, we now proceed to review some of the existing explanatory models of the customer loyalty concept.

## 2. A Review of existing Descriptive Loyalty Models

The objective of this section is to perform a reasonably exhaustive revision of explanatory customer loyalty building models published in the current academic literature, with the aim of providing a theoretical framework to the ongoing research project of the first signing author of this report.

The study of customers' loyalty links with a certain company or service provider has become one of the main focal points of marketing research in recent years, resulting in the definition of several models attempting to define and explain it. However, as a preliminary step

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<sup>5</sup> Even more in the case of companies with hundreds of thousands or millions of active clients.

<sup>6</sup> Adapted to the market research and based on internal behaviour variables gathered systematically by the company.

<sup>7</sup> Understanding as client's value the sum of his actual recurrent value and his potential value, in the immediate and future dimensions.

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prior to their review, we consider necessary to re-examine some of the concepts involved in the construction of these models, describing how different authors have defined and evaluated them. The concepts to be revised are as follows:

- Loyalty.
- Satisfaction.
- Service quality.
- Price and sacrifice.
- Value of service.
- Costs and switching barriers.
- Other: non-perceptive variables, socio-demographic and company characteristics, length of time as customer, indifference, inertia and level of expertise.

## 2.1 Basic Concepts

### Loyalty

The concept of loyalty has been interpreted and defined in many different ways in recent literature; while some authors have approached it solely from the viewpoint of customers' intentions to re-purchase, others have extended the approach to the study of customer repeat purchase intentions and recommendation to others. Let us take a closer look at the most prominent approaches:

- Cronin et al. (2000) [21]; Dabholkar (2000) [25]; Kim et al. (2004) [53] refer to *loyalty* in terms of intention to re-purchase and tendency to speak well of the company, considering loyalty the combination of an affective part - speaking well of the company is the objective result of a subjective attachment or feeling towards it- and a part related to behaviour: repeat purchase. With these two aspects of loyalty in mind, Lam et al. (2004) [56] separated and studied independently the effects of *recommendation* and *repeat purchase*.
- Gounaris et al. (2003) [37] working in the context of loyalty towards a brand, consider loyalty as a combination of purchasing behaviour, the emotional attachment to the brand and social influences. Within this framework, they define four possible types of loyalty:
  - ✓ **No loyalty:** no purchase at all, total lack of attachment to the brand and absence of social influences in favour.
  - ✓ **“Covetous” loyalty:** absence of purchase but attachment and positive predisposition towards the brand. Brand recommendation -the customer does not buy for reasons beyond his reach-
  - ✓ **Inertia loyalty:** purchase through habit or system, but with no attachment -very fragile and easily destroyed loyalty-
  - ✓ **“Premium” loyalty:** high level of attachment to brand, high level of repeat purchasing and strong social pressure.
- Recent literature, however, also provides us with references from authors who have studied loyalty only from a *repeat purchase intention* viewpoint [51, 52, 70, 66].
- A different focus can be observed in the work of Chen and Hitt (2002) [20], who studied which motives led online stock market clients to “disloyalty”. In this particular study, “disloyalty” was described as two possible behaviours: *change of company* and *stopping of activity*, considering that the causes which lead a client to change broker are different to those which lead them to stop their online stock trading activity.
- On the other hand, some authors, such as Fullerton (2004) [34], instead of studying loyalty directly, discuss customer *commitment* to the company as an antecedent to loyalty, understood as recommendation, intentions to change and customer readiness to

pay more. He distinguishes two types of commitment according to their causes: *affective commitment* -affective and attitude-related link of the customer to the company- and *continuance commitment* -commitment acquired due to lack of alternatives and/or due to the cost of change being perceived as too high-. According to the author, *affective compromise* is positive and the customer's relationship with the company should be based on this commitment, while *continuance commitment* is negative, and consequently, if the relationship is based on this commitment, customers remain loyal only because they feel obliged.

- Another author who addressed the commitment aspect is Pura (2005) [69]. In his study, he distinguished commitment concepts, such as "lasting desire to continue the relationship" and *behavioural intentions* -intentions to repeat purchase and/or increase frequency of purchase-. In this study, the effect of *commitment* on *behavioural intentions* was investigated.

## Satisfaction

Due to its influence on loyalty, *satisfaction* has been given much attention in literature of the field. As a starting point, we may consider satisfaction as the evaluation of an emotion which reflects the extent to which a consumer believes that the purchase and/or use of a service arouses positive sensations [72]. However, recent literature on the subject shows varying nuances both in the definition and the quantitative measurement of the concept. Let us look at the most significant:

- Cronin et al. (2000) [21] distinguish between "emotional" satisfaction and "rational" satisfaction. For this purpose, they use two groups of items to evaluate customer satisfaction: one based on the emotions perceived by the customer in buying and/or using a service; and another based on the valuation made by the customer with regard to their choice of purchase and/or use of the service.
- Jones et al. (2000) [51] focus their understanding of satisfaction, as the evaluation of the outcome on the basis of all previous experiences with the brand -as a way of distinguishing satisfaction with the service from satisfaction with those who provide it- [3, 12].
- Kim et al. (2004) [53] understand satisfaction as the reaction and judgement of the customer with regard to the company's level of compliance [62], incorporating two operational items in their study: general satisfaction with the company and general satisfaction with the service.
- Finally, two additional concepts of satisfaction can be identified in literature on the topic: *satisfaction with the specific transaction* and *accumulated* or *overall satisfaction* [13, 23, 74]. In this respect, *satisfaction with the specific transaction* provides an immediate and specific vision, in contrast to the *accumulated* one -which considers the satisfaction accumulated during the customer's entire life cycle-, which gives a general vision of the service. Lam et al. (2004) [56], taking both definitions into account, focused only on *accumulated satisfaction*.

## Service quality

Another of the main focuses of marketing studies in recent years has been the concept of *service quality*, with a great number of proposals and debates regarding its definition, measurement and evaluation:

- Grönroos (1984) [39] takes into account the difference between the service expected and the service received, identifying the three components which form *service quality*:

functional service quality -“how?”-, technical service quality -“what?”- and image -constructed based on the technical and functional service quality; as well as other factors such as tradition, ideology, word of mouth, prices and/or public relations-.

- Parasuraman et al. [63-65] proposed service quality as the difference between the expectations and results of the aspects it is composed of, making an important contribution to the standardization of the measurement of the *service quality* perceived by customers. In 1988 they refined their first investigations publishing the well-known SERVQUAL scale, subsequently used in numerous studies. In this work, the ten original aspects of service quality were reduced to five final aspects: reliability, responsiveness, tangibles, assurance and empathy. In later work (1991 and 1994), although they adjusted the number of measurable items for each aspect, they kept the number of aspects as five. There have been numerous debates, among marketing experts, regarding the dimensionality of the SERVQUAL scale and on the appropriateness, or not, of measuring *service quality* as a distance (*gap*) between customer expectations and their evaluation of the results [22, 63]. The general result of these debates seems to lead us to two important conclusions: on the one hand, a general consensus that it is not necessary to measure the expectations of the results of a service in order to measure *service quality* [23, 85]; and on the other hand, the incapability of investigators to resolve the underlying questions regarding the dimensionality of the SERVQUAL scale.
- Cronin and Taylor (1992) [22] published an alternative to the SERVQUAL scale, known as the SERPERF scale. According to the authors, *service quality* must be measured and conceptualised as an attitude. In their study they explain how the measurement scale based on SERPERF performance reduces the number of SERVQUAL items by 50% and provides better results.
- New contributions to the study of service quality may be found in more recent investigations. Dabholkar et al. (2000) [25] consider that customers evaluate the different factors related to service: reliability, personalised service, comfort, characteristics, which they hold as antecedents to general *service quality*; a dimension which should be evaluated separately -not as the sum of its components-.
- In their study, Cronin et al. (2000) [21] also consider general service quality as an independent dimension. In this case, two forms of measurement were used to measure the *service quality* of several items:
  - ✓ **Service Quality Performance (SQP):** Consisting of 10 questions (see table 1) derived from the ten original aspects proposed by Parasuraman, Zeithaml and Berry's (1985) [65].

**Service Quality Performance (scaling from "very low" to "very high" on a 9-point scale)**

1. Generally, the employees provide service reliably, consistently, and dependably
2. Generally, the employees are willing and able to provide service in a timely manner
3. Generally, the employees are competent (i.e., knowledgeable and skilful)
4. Generally, the employees are approachable and easy to contact
5. Generally, the employees are courteous, polite, and respectful
6. Generally, the employees listen to me and speak in a language that I can understand
7. Generally, the employees are trustworthy, believable, and honest
8. Generally, this facility provides an environment that is free from danger, risk, or doubt
9. Generally, the employees make the effort to understand my needs
10. Generally, the physical facilities and employees are neat and clean

Table 1: items of “Service Quality Performance” used by Cronin et al. (2000) [21]

- ✓ **Overall Service Quality (OSQ):** Consists of three direct and general measures of the *overall service quality* (see table 2):

✓

<b>Overall Service Quality</b>
"Poor" 1 2 3 4 5 6 7 8 9 "Excellent"
"Inferior" 1 2 3 4 5 6 7 8 9 "Superior"
"Low Standards" 1 2 3 4 5 6 7 8 9 "High Standards"

Table 2: items of "overall service quality" used by Cronin et al. (2000) [21]

- In their work in the telecommunications industry context, Ranaweera and Nelly (2003) [70] understand that *perceived service quality* can be broken down into eight basic aspects: courtesy, capacity, ease of contact, reliability, security, service package, understanding and recuperation service. In their study, they used a scale of 12 points -adapted from the scale used by Cronin et al. (2000) [21]- to value one of the eight aspects, considering its average as the level of *perceived service quality* (see table 3).

<b>SQ perceptions (scaling from "Strongly agree" to "Strongly disagree")</b>
1. My phone company always keeps me informed of things that I need to get the best use of the service
2. My phone company staff make an effort to explain things in a simple way
3. I am sure that my phone company will suit my needs best in the future
4. I have no doubts about the future existence of my phone company
5. My phone company staff are capable
6. My phone company staff are courteous
7. Whenever something goes wrong, my phone company takes corrective action without delay
8. It is easy to contact my phone company whenever necessary
9. My phone company understands my needs best
10. My phone company is concerned about my safety
11. My phone company's service is reliable (service is available whenever I want it)
12. My phone company offers all the services I expect from a phone company

Table 3: items of "service quality perceptions" used by Ranaweera and Nelly (2003) [70]

- For their part, Kim et al. (2004) [53], also in the telecommunications market, define *service quality* as customer satisfaction or discontent created by their buying experience or use of the service. Though from the outset this definition is somewhat unclear, given that it appears to mix concepts of satisfaction and service quality, in operational terms the concept is clearer and more objective, measuring *service quality* as: the quality of the call, the price structure -reasonable prices-, the mobile device, the value added services, the convenience of procedures (subscription and change) and customer support. The items used appear in the table 4:

Variable	Operational definition	Measurement items
<b>Service Quality</b>		
Call quality	Call quality according to customer perception	Call clarity Coverage
Pricing structure	Pricing and price schedule	Reasonability of price Variety of price schedule Possibility of freely choosing price schedules
Mobile device	Mobile device functionality and design	Quality of mobile device Variety of mobile device types Quality of mobile device design Variety of value-added services
Value-added services	Type and convenience of value-added services	Convenience of use of value-added services Whether value-added services are up-to-date
Convenience in procedures	Subscription and change procedures	Ease of subscribing and changing service Staff friendliness, when subscribing and changing
Customer support	Customer support system and complaint processing	Variety of customer support systems Speed of complaint processing Ease of reporting complaint Friendliness when reporting complaint

Table 4: operational definitions and measurement of “service quality” used by Kim et al. (2004) [53]

- Lam et al. (2004) [56], through consultations and interviews with agents and managers of a courier firm and based on existing literature on *service quality* measurement [65], selected eight initial attributes which were later reduced to five (see table 5).

Item	Description
<b>Service Quality Attributes</b>	
Q1	Understanding of my business and shipping needs by the staff
Q2	Timeliness of pickup of consignments as promised
Q3	Reliability in delivering shipments (accurately, on time, etc.)
Q4	Ease of booking a shipment with a company
Q5	Promptness in advising about any problems with my shipments

Table 5: “service quality attributes” used by Lam et al. (2004) [56]

It is important to highlight that they did not use *service quality* as a direct precursor to satisfaction; instead, they took a weighted average -the weighting was given by those interviewed- of the *service quality* and the *perceived price* they calculated the *service value*, which they *did* hold as a precursor to *satisfaction*.

- In a recent study, Gordon Fullerton (2004) [34] -in line with the argument of Brady and Cronin (2001) [15]- concluded that although the SERVQUAL scale is a widely used *service quality* measurement system, one of its serious defects is that it does not deal with the whole spectrum of questions and attributes by which consumers evaluate *service quality*. In order to solve this problem, he considers three aspects as antecedents to *overall service quality*: *interaction quality* -encounter between customer and supplier- *quality of results* -customer evaluation of the service results, including supplier punctuality- and *environmental quality* -tangible characteristics of the place of service- [15]. According to Fullerton these antecedents can also have some sub-aspects which will depend on the characteristics of the company and on the sector to be analysed. The items used in the study to measure *service quality* are summarised in table 6.

**Interaction Quality**

1. I would say the quality of my interaction with X's employees is high
2. You can count on the employees of X being friendly
3. X's employees respond quickly to my needs

**Environment Quality**

1. X's physical environment is one of the best in its industry
2. X's layout never fails to impress me
3. At X, I can rely on there being a good atmosphere

**Outcome quality**

1. I always have an excellent experience when I visit X
2. I can count on X to keep my waiting time to a minimum
3. I am consistently pleased with the selection at X

**Service Quality**

1. I believe the general quality of X's services is low (RC)
2. Overall, I consider X's service to be excellent
3. The quality of X's service is: (1=poor; 7=excellent)

Table 6: dimensions and items of "service quality" used by Fullerton (2004) [34]

- Finally, Bell et al. (2005) [8] believe that in mature industries characterised by relatively undifferentiated products, very often it is *service quality* which distinguishes one organisation from the other. In their study, they analyse the financial sector, highlighting two aspects of quality: *technical service and functional service quality*.

- ✓ **Technical Service Quality.** Aspects related to the service result -the quality and exactness of the advice, achievement of profitability expectations-. A scale of four items, based on Sharma and Patterson (1999) [75], developed specifically for the financial services industry was used (see *table 7*).

**Technical Service Quality**

1. My adviser has assisted me to achieve my financial goals
2. My adviser has performed well in providing the best return on my investments
3. My adviser has helped me to protect my current position by recommending the best investing options
4. My adviser has performed well in investing my money in appropriate investment options

Table 7: items of "technical service quality" used by Bell et al. (2005) [8]

- ✓ **Functional Service Quality.** Elements related to the service delivery process -accessibility and empathy of the service provider-. They adapted a scale of five items by Hartline and Ferrell's (1996) [41], ultimately obtaining a scale of three items (see *table 8*):

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<b>Functional Service Quality</b>
<ol style="list-style-type: none"> <li>1. My adviser gives me personal attention</li> <li>2. My adviser has my best interests at heart</li> <li>3. I can share my thoughts with my adviser</li> </ol>

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Table 8: items of “functional service quality” used by Bell et al. (2005) [8]

## Price and sacrifice

In this area of research it is also common to find references from authors who in their studies have investigated the fundamental role played by customer perception in final customer *loyalty* regarding the *price* or *sacrifice* -effort, time and money- necessary to acquire a certain product or service.

- For example, Cronin et al. (2000) [21] -in line with the definitions by Heskett, Sasser, and Hart (1990) [44] and Zeithaml (1988) [84]- who consider *sacrifice* as that which is given or sacrificed in order to acquire a service. The measuring of this variable is based on a series of items which represent perceptions of the monetary price and non-monetary price associated with the acquisition or use of a service. The monetary price is evaluated through the direct measuring in dollars of the service and the non-monetary price is evaluated using direct measurements of time and effort (see *table 9*).

<b>Sacrifice (scaling form "very low" to "ver high" on a 9-point scale)</b>
<ol style="list-style-type: none"> <li>1. The price charge to use this facility is</li> <li>2. The time required to use this facility is</li> <li>3. The effort that I must make to receive the services offered is</li> </ol>

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1. The price charge to use this facility is
  2. The time required to use this facility is
  3. The effort that I must make to receive the services offered is
- 

Table 9: items of “Sacrifice” used by Cronin et al. (2000) [21]

- Ranaweera and Nelly (2003) [70], after studying the literature related to service provision, highlights in his study that sufficiently tested forms of measuring *price* perceptions cannot be found. In this regard, and in accordance with the work of Varki and Colgate (2001) [81] and Drolet and Morrison (2001) [29], he uses only one item to valuate how reasonable the prices of a company are compared to competitors: “*the prices charged by my telephone company are reasonable*” (entirely agree vs. entirely disagree).
- More recently, Kim et al. (2004) [53] considered *price structure* a component of *service quality*. The items used to measure this variable were as follows:
  - ✓ Reasonableness of prices.
  - ✓ Variety in tariff plans.
  - ✓ Possibility of choosing freely between tariff plans.
- Finally, Lam et al. (2004) [56], in accordance with Naumann (1995) [61], consider that the *sacrifice* or *price* that a client pays can be broken down typically into: transaction costs, costs over the client life cycle and some level of risk. The items used in the study to measure perceptions regarding *price* were<sup>8</sup> (see *table 10*):

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<sup>8</sup> Valuating each item on a scale of 1-10 (were 1 = totally dissatisfied, 10 = totally satisfied).

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Price attributes	Description
P1	Shipment costs incurred by you company (i.e., rates charged for actual services by the courier firms)
P2	Shipment preparation costs incurred by your company (i.e., printing, labeling, filling shipping forms, etc.)
P3	Delay costs incurred by your company (i.e., costs related to fixing shipment delays, etc.)
P4	Communication costs incurred by your company (i.e., costs of telephone, fax, etc, in dealing with the courier firms)
P5	Costs incurred by your company in fixing problems with the courier forms' invoices and so on

Table 10: Description of "Price attributes" used by Lam et al. (2004) [56]

## Service value

Three different perspectives could be taken in order to understand the *value of a service* [71], although only the last two are relevant to the creation of value for the customer:

- *Value for the company*: understood as the achievement of the maximum profit by the company.
- *Value offered by the company*: this is value offered to the customer in order that they chose the competitive offer of the company in question.
- *Value perceived by the customer*: value which the customer perceives. This is a completely subjective value which depends on the final judgement of the customer.

Excellence in the creation and delivery of *value* for the customer has nowadays become a key factor in obtaining sustainable competitive advantages. This "superior" value implies, as Weinstein and Johnson (1999) [82] state, the constant creation of business experiences which exceed customer expectations. In this respect, authors such as Band (1994) [5] or Butz and Goodstein (1996) [17] establish the following scale regarding the level of *offered value* which a product or service should provide:

- *Expected product or service*: complies with the minimum characteristics for entry into the market; in other words, which represents the normal level for this type of business.
- *Perfected product or service*: additional characteristics are added which, though unexpected by the customer, are welcome, since they may make the customer's life easier.
- *Excellent product or service*: characteristics unimaginable for the customer are added, representing all that is necessary to attract and maintain customers, increasing the differential value of the service compared to competitors. This is obviously a level which generates a stronger link with the customer.

On the other hand, it is fundamental for a company to know the perception a customer has of the product or service it offers, given that at times this may not coincide with what the company believes it is offering. For this reason, the majority of studies in literature of the field focus on the *value perceived by the customer*. The following table (see *table 11*) shows the main definitions given to this concept [71].

Most investigations highlight the existence of two main dimensions. On the one hand, the benefit a customer perceives when they acquire a product or service and on the other, the sacrifices this acquisition implies. Investigations differ in the components which make up each of these dimensions; although there is a general tendency to consider within the benefits of the *quality service* perceived, and within the sacrifices, the *price* of the product or service. There are also two conflicting viewpoints which consider these dimensions as an antecedent of perceived *value* -which in this case can therefore be measured directly- and as components of

perceived *value* -which in this case should be measured as the sum of these components- [71]. In this context, some of the most relevant contributions of recent years correspond to:

Author	Context	Definition		Nature
Zeithaml (1988)	Perceptions from consumers of beverages	"Perceived value is the consumer's global assessment of a product's usefulness, based on the perceptions of what he gives and takes"	Benefits	Intrinsic attributes Extrinsic attributes Perceived quality Other benefits
			Sacrifices	Monetary price Non-monetary price
Can (1990)	Client service	"Value is the benefit that a client obtains from a product or service, minus the cost of obtaining it"	Benefits	Expected benefits Assumed benefits Additional benefits
			Sacrifices	Price Time Effort
Monroe (1990)	Price strategies	"Buyers' value perceptions represent an exchange between quality or benefits perceived from the product when compared with the sacrifice of paying the price"	Benefits	Quality
			Sacrifices	Price
Lovelock (1991)	Marketing of services	"Net value is the sum of all perceived benefits, minus the sum of all perceived costs"	Benefits	*
			Sacrifices	*
Anderson, Jain & Chintagunta (1993)	Organizational market (B2B)	"Value perceived in monetary units, understood as economic, technical, service and social sacrifices received by the client organization, of the price paid for the product"	Sacrifices	Economic Technical Service Social
Gale (1994)	Company management	"Client's value is the quality perceived in the market, adjusted for the relative price of his product"	Benefits	Quality
			Sacrifices	Price
Kotler, Cámara & Grande (1995)	Marketing	"Value implies the consumer's estimation of the capability of the product to satisfy his needs"	Benefits	Expected quality
			Benefits	*
Berry & Yadav (1997)	Service companies	"Value is the set of perceived advantages in exchange for the charges endured"	Sacrifices	Product attributes Result attributes Consequence of use attributes
			Benefits	Expected Desired Unexpected
Goodstein & Butz (1998)	Organizational change	"Value for the client is the set of perceptions that said client has of how well his needs have been met"	Benefits	Economic Technical Service Social Price
Anderson & Narus (1998)	Marketing	"Value is the economic worth of the technical, economic, service and social benefits that the client of a company receives in exchange of the price paid for a market offer"	Benefits	Expected Perceived
			Sacrifices	Economic Time Effort Psychological Opportunity Social Affective-behavioral Change Structural
Bigné, Moliner & Callarisa (1998)	Marketing	"Perceived value is the consumer's global assessment of the usefulness of an exchange relation based on the perceptions of what he gives and takes"	Benefits	Perceived quality
			Sacrifices	Price
Grewal, Monroe & Krisnan (1998)	Advertising	Acquisition value: "the net gain associated to the acquired products or services" Transactional value: "the psychological perception of the satisfaction obtained in financial terms produced by the price of the deal"	Benefits	Price
			Sacrifices	Price
Goodwin & Ball (1999)	Client loyalty	"Value is the perceived worth of a product or service compared with what was paid and the cost of opportunity incurred"	Benefits	*
			Sacrifices	Price Cost of opportunity
Teas & Agarwal (2000)	Client perceptions	"The consumer's value perceptions are based on the compensation between the product's benefits and the economic sacrifice"	Benefits	Perceived quality
			Sacrifices	Price
Walter, Ritter & Gemünden (2001)	Elaboration market (B2B)	"Value is the exchange perceived between the multiple benefits and sacrifices generated through the relation with the client by those who take the key decisions in the providers"	Benefits	Related to the relation client-provider
			Sacrifices	Quality Service Image Relational Price Non-monetary sacrifices
Martín Ruiz (2001)	Mobile telephony clients' perceptions	"Value is a cognitive answer composed of several basic dimensions, where benefits received and sacrifices endured are processed jointly"	Benefits	Quality Service Image Relational Price Non-monetary sacrifices
			Sacrifices	Price Non-monetary sacrifices

Table 11: Main definitions of "Service value" [71]

- Cronin et al. (2000) [21], who summarised in one single definition -perceived value is the consumers' overall assessment of the utility of a product based on perceptions of what is received and what is given- the work of Zeithaml (1988) [84], where four possible interpretations were identified on which consumers base their evaluations on service value; including for the purpose two direct systems for measuring this concept (see table 12):

**Service Value (scaling from "very low" to "very high" on a 9-point scale)**

1. Overall, the value of this facility's services to me is
2. Compared to what I had to give up, the overall ability of this facility to satisfy my wants and needs is

Table 12: items of "Service Value" used by Cronin et al. (2000) [21]

- Lam et al. (2004) [56], in their study inspired on the work of Heskett et al. (1994) [43], understand customer *value* as a weighting between the attributes corresponding to "what is obtained" and those corresponding to "what is given", although, in operational terms, they use the method for measuring customer value developed by Gale (1994) [35]. This method has the advantage of providing a profile of the company in relation to its competitors, where service/product attributes and prices are concerned. According to this method, the *value* perceived by the customer is calculated as follows:

$$\text{Value} = (\text{General Relative Quality Level} \times \text{Quality Weight}) + (\text{Relative Price Level} \times \text{Price Weight})$$

The level of general relative quality is calculated by dividing the level of company *service quality* (valued from 1 to 10) by the average of the competitors' *service quality* level (valued from 1 to 10). The same applies in the case of price. Both the weight of quality and price are provided by the person interviewed.

- More recently, Pura (2005) [69] used work by Sheth et al. (1991) [76] as a starting point, which included the identification of five aspects of *value*: functional value, social value, emotional value, epistemic value and conditional value, arguing that *functional value* includes the utility aspects of consumption and that *emotional value* includes its hedonic aspects. Given that Sheth's work [76] does not provide measurement items to validate his perceived *value* model in the electronic self-service market context, Pura [69] complements his investigation with the work of others to support the detailed definition of these aspects:

- ✓ **Functional Value:** Functional value represents the value derived from the effective fulfilment of work. It is often related to monetary value or superiority compared to other alternatives [76]. However, other matters must be addressed within functional value apart from the fulfilment of work, such as time and money saving [60] or convenience, understood as the ease of use, speed of acquisition [2, 18, 19].
- ✓ **Social Value:** This is related to social approval and self-image improvement in the eyes of others [6]. The work of numerous investigators reinforces the importance, for self-esteem, of social reputation [11, 46, 76, 77]. Some theories also mention fashion, status and sociability, relating them to aspects of social value, highlighting, for example, that the use of mobile telephone services may serve to express personality, status and image in a public context [58]. Finally, Sweeney and Soutar (2001) [77] define social value as the "utility derived from

- the capacity to improve the concept itself on a social level". Hence, social value is derived mainly from the product or use of the service shared with others [76].
- ✓ **Emotional Value:** This is achieved when a product/service arouses feelings or emotional states in the consumer [76, 77]. For example, the search for pleasure and diversion are reasons, related to emotional value [46], which influence strongly the decision to use mobile telephone services [58], since the use of technology itself often increases positive sensations, independently of the service used [16].
  - ✓ **Epistemic Value:** This is related to the curiosity felt, and the novelty or knowledge acquired. Curiosity [76], novelty and the search for variety [45] are among the main reasons for seeking and purchasing a certain product or service. Customers motivated by epistemic value often return to their habitual consumption patterns after satisfying the need for change and exhausting the effect of novelty [76].
  - ✓ **Conditional Value:** Conditional value originally refers to circumstances affecting choice. Such circumstances may be stationary, events which occur once in a lifetime or emergency situations [76]. Holbrook (1994) [46], for his part, defended that conditional value depends on the context in which the value is judged and exists only in specific situations. In this respect, conditional value will depend on the concept of "context", which is understood as time, location and social environment, available equipment, technological environment and specific user criteria -such as mood, work or free time- [54].

In his study, Pura [69] defined all these aspects in the group of items of *table 13*.

## Costs or switching barriers

The study of costs or switching barriers arose in the context of investigation in industrial organisations and business strategies. Several authors, pioneers in the field of management such as Porter (1980) [68], Day (1986) [26] and Aaker (1988) [1] began to develop the concept of customer loyalty through the construction of switching barriers. One of the first definitions which came to light is that of Porter (1980) [68], who defines the costs of switching as "those which are associated with the movement from one provider to another".

Although, in recent years, diverse investigations of an economic, strategic and marketing nature have appeared, with the aim of classifying the different switching costs which customers and companies face, there is no consensus regarding which is the most appropriate categorisation. In general, the idea of switching costs is viewed as the "difficulty" associated with changing to a new product, service or system [36], a highly subjective and emotional concept which is not easily evaluated [83]. In addition, we must take into account the fact that switching costs differ in composition and nature according to the context and sector which is being analysed, also varying in relation to customer characteristics.

In an initial study, Jones et al. (2000) [51] described switching barriers as any factor which makes changing providers difficult or expensive for the customer. They examined three barriers in the context of consumer services: interpersonal relationships, switching costs perceived and the attractiveness of alternatives. Such barriers are common in the context studied -banking services and hairdressers- given their high level of personalisation and dispersed geographical nature. This classification is very similar to that which Kim et al. (2004) [53] later developed, although their work is based on the idea that switching barriers refer to the difficulties of changing to another provider for a customer who is dissatisfied with the current service, or to the financial, social and psychological burdens perceived by a customer on changing companies [31]:

Constructs	Items and their sources
Monetary value	Adapted from Chen and Dubinsky (2003), Dodds and Monroe (1991) and Sweeney and Soutar (2001) The price of this mobile service is acceptable This mobile service is good value for money This mobile service is better value for money than what I would pay for the same service via internet
Convenience value	Adapted from Anderson and Srinivasan (2003) and Mathwick et al. (2001) I value the ease of using this mobile service Using this mobile service is an efficient way to manage my time I value the possibility to use this service instantly via my mobile device I value the convenience of using this mobile service
Social value	Adapted from Soutar and Sweeney (2003) and Sweeney and Soutar (2001) Using this mobile service helps me to feel accepted by others Using this mobile service makes a good impression on other people Using this mobile service gives me social approval
Emotional value	Adapted from Soutar and Sweeney (2003) and Sweeney and Soutar (2001) Using this mobile service gives me pleasure Using this mobile service makes me feel good
Epistemic value	Adapted from Donthu and Garcia (1999) I used this mobile service to experiment with new ways of doing things I used this mobile service to test the new technologies I used this mobile service out of curiosity
Conditional value	(Created for this study) I value the information this service offers, with the help of which I get what I need in a certain situation

Table 13: Constructs, items and their sources of “Service Value” used by Pura (2005) [69]

- **Interpersonal relations:** Psychological and social relations such as care, trust, privacy or communication [38]. They refer to the intensity of the links developed between customers and the employees who provide the service [10, 80]. Interpersonal relations are particularly important when we are referring to service provision, given the high level of personal interaction it implies, the intangible nature of the service itself, the heterogeneity of the result and the prominent role played by customers in the service production [14, 24]. Interpersonal relations constructed through recurring interactions between a company and customer build a link between them and ultimately lead to a long term relationship. Investing in a relationship helps to increase customer dependency and therefore increases switching barriers. The items used by Jones et al. [51] to measure the effect of interpersonal relations were as in *table 14*.
- **Perceived switching costs:** These correspond to the consumer’s perception regarding the time, money and effort that entails changing service provider [27]. Such costs may be associated with the search for alternatives, such as the learning process -both for the customer and the new service provider- [40]. The items used by Jones et al. [51] to measure switching costs were as follows (see *table 15*):

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**Interpersonal Relationships**

1. If I feel like there is a “bond” between at least one employee at this bank and myself
  2. I have developed a personal friendship with at least one employee at this bank
  3. I have somewhat of a personal relationship with at least one employee at this bank
  4. I am friends with at least one employee at this bank
  5. At least one employee at this bank is familiar with me personally
- 

Table 14: items of “Interpersonal Relationships” used by Jones et al. (2000) [51]

**Switching Costs**

1. In general it would be a hassle changing banks
  2. It would take a lot of time and effort changing banks
  3. For me, the costs in time, money, and effort to switch banks are high
- 

Table 15: items of “Switching Costs” used by Jones et al. (2000) [51]

Kim et al. (2004) [53], in their study in the field of mobile telephone services, subdivided switching costs into three new categories:

- ✓ **Loss costs:** Perception of loss of social status or profitability on cancelling the service contract with the service provider.
- ✓ **Adaptation costs:** Costs related to the search for and/or process of learning about new alternatives.
- ✓ **Installation costs:** Economic costs -such as the purchase of a new device or payment of subscription fees- involved in changing to a new company.
- **Attractiveness of alternatives:** This refers to customer perceptions regarding the availability of feasible alternatives on the market. It has to do with the *reputation, image* and *service quality* of the alternative companies, which are expected to be superior or more appropriate than those of the current service provider. The attractiveness of alternatives is closely linked to service differentiation and competitive pressure. If a company offers differentiated services which are difficult for a competitor to equal, or if there are few alternatives on the market, customers will tend to stay with the current company [9]. The items used by Jones et al. [51] to measure switching costs were as follows (see *table 16*):

**Attractiveness of Alternatives**

1. If I needed to change banks, there are other good banks to choose from
  2. I would probably be happy with the products and services of another bank
  3. Compared to this bank there are other banks with which I would probably be equally or more satisfied
  4. Compared to this bank, there are not very many other banks with whom I could be satisfied (Reverse Coded)
- 

Table 16: items of “Attractiveness of Alternatives” used by Jones et al. (2000) [51]

In a later study, Jones et al. (2002) [52] -in the same way as Patterson [66] a year later- based on the switching barrier classification presented by Guitinan’s (1989) [40], grouped switching costs into three new categories: continuity, learning and already invested costs:

---

- **Continuity costs:** This refers to the probability of the loss of benefits and privileges granted by the current service provider. In their investigations, both Jones et al. [52] and Patterson [66] were of the opinion that continuity costs can be subdivided into:
  - ✓ **Costs of losing benefits and privileges:** customers with a repetition pattern known by the company usually accumulate special benefits, preferential service, special favours, etc. These special benefits would be lost if the relationship with the current service provider were to end [59, 80], implying clear disincentives for change [7, 44].
  - ✓ **Risk perception:** This refers to the psychological uncertainty or perception of risk regarding whether or not the new provider -not tested- will be on the same level as the current provider [40, 73, 87]. The risk and uncertainty are greater when the quality is difficult to judge or varies considerably between alternatives. Therefore, risk perceptions in services stand out due to their intangibility and heterogeneity [86].
- **Learning costs:** These include the time and effort necessary to acquire information and for the exchange and evaluation of a new provider. Both Jones et al. [52] and Patterson [66] coincide in the first two aspects into which these costs may be sub-divided ...
  - ✓ **Pre-switch search and evaluation cost:** These represent the consumer's perception regarding the time and effort -prior to changing- necessary to search for information on the available alternatives and evaluate their feasibility. The inclusion of these costs is justified by the service characteristics: geographical spread; limitation of alternatives per region; intangibility of the service and impossibility of separating production and consumption [87].
  - ✓ **Launch costs:** This refers to the perception of the time necessary and the inconvenience involved in training a new provider. When the level of personalisation is high, as is usually the case in services, an additional learning process is necessary for the service to be provided satisfactorily: *the learning process of the service provider*. These costs often fall back on customers [40, 48, 49, 68].

... although they differ in the third. While Jones et al. [52] considers the post-switch knowledge and behaviour costs...

  - ✓ **Post-switch knowledge and behaviour costs:** These are consumer perceptions regarding the time and effort necessary to adapt to the procedures and routines of the new alternative. This is particularly relevant in the case of services, since consumers generally play a fundamental role in routines and procedures [14, 44].

Patterson [66] also considers the attractiveness of the alternatives:

  - ✓ **Attractiveness of alternatives:** Customer evaluation of the likely satisfaction that may be achieved from the alternative relationship [67]. The existence of alternatives is the key factor in defining dependence [30, 79]. In other words, if a customer is unaware of the attractiveness of the alternatives or simply does not perceive them as more attractive than the current relationship, then it is more than likely that they will stay with their current relationship, even when this is perceived as unsatisfactory.
- **Already invested costs:** These include investments, economically irrelevant but psychologically important, prior to changing relationships. [28, 40]. More specifically, they represent the customer perception of the time and effort they have already invested in establishing and maintaining a friendly relationship with a certain service provider. Therefore, some clients will be motivated by avoiding the psychological and emotional stress involved in ending such "almost social" relationships.

The final items used by Patterson [66] to evaluate the aforementioned aspects are presented in Table 17. The items used by Jones et al. [52] may be observed in Table 18.

<b>Special treatment benefits</b>
<ol style="list-style-type: none"> <li>1. Will go out of their way to search for a special deal for me</li> <li>2. Will always search for the most reasonably priced solution</li> <li>3. Will more likely help me if something goes wrong</li> <li>4. Will be more likely to do what I want</li> </ol>
<b>Risk perceptions</b>
<ol style="list-style-type: none"> <li>1. If I change, there is a risk the new.....won't be as good</li> </ol>
<b>Search costs</b>
<ol style="list-style-type: none"> <li>1. On the whole, I would waste a lot of time searching for another..... if I changed....</li> </ol>
<b>Attractiveness of alternatives (four items)</b>
<ol style="list-style-type: none"> <li>1. All..... are much the same, so it would not matter if I changes</li> <li>2. All..... offer a similar range of services</li> <li>3. All things considered, most..... are similar</li> <li>4. All..... give a similar level of service</li> </ol>
<b>Need to explain preferences</b>
<ol style="list-style-type: none"> <li>1. If I change, I will need to spend a lot of time to explain my preferences to a new....</li> </ol>
<b>Loss of interpersonal relationship</b>
<ol style="list-style-type: none"> <li>1. I will lose a friendly and comfortable relationship if I change</li> </ol>

Table 17: items of “Switching Barriers” used by Patterson et al. (2002) [66]

The study, by Chen and Hitt (2002) [20], of the online stock broking industry has two aspects. On one hand, it provides an explanation of “disloyalty” -switching or cancellation-based on the usage characteristics and demographics of the customer, and of the characteristics of the service itself and, on the other hand, the calculation of costs of switching from one of the firms analysed to another. Using the classification of Klemperer (1987) [54] as a base, three types of switching costs were identified: *transaction costs*, *learning costs* and *contractual (or artificial) costs*. The transaction costs occur when a new relationship is started with a new provider and at times these also include the costs needed to terminate the existing relationship. The learning costs represent the effort required by customers to find the same level of comfort with the new provider that they had with the old one. The artificial costs are created by the firms themselves through deliberate actions: flyer programmes, repeat purchase discounts, rewards for clicking through, etc. As well as these explicit costs, the study also identified implicit switching costs associated with decision making trends and the desire to avoid risk, especially when the customer perceives uncertainty in the quality of other products or brands. On the other hand, the analysis carried out by Lam et al. (2004) [56] considers switching costs -monetary and non monetary- implied in changing to another provider [42]. In their study, the domain of switching costs also includes the loss of benefits derived from the relationship that is being brought to an end [42, 50]. In this respect, the switching costs could conceptually reflect a dependency of the buyer on the seller which is materialised in the buyer’s need to maintain his relationship with a provider on order to reach his objectives [33]. The items that they study used to evaluate the different dimensions were the following (see *table 19*):

<i>Pre-switching search and evaluation costs</i>	
1.	It would take a lot of time and effort to locate a new hairstylist/ barber
2.	If I changed hairstylist/ barbers, I would not have to search very much to find a new one
3.	If I stopped going to my current hairstylist/ barber, I would have to search a lot for a new one
4.	It takes a great deal of time to locate a new hairstylist/ barber
5.	If I stopped using my current hairstylist/ barber, I would have to call and look around for a new one to use
<i>Costs of lost performance</i>	
1.	This hairstylist/ barber provides me with particular privileges I would not receive elsewhere
2.	By continuing to use the same hairstylist/ barber, I receive certain benefits that I would not receive if I switched to a new one
3.	There are certain benefits I would not retain if I were to switch hairstylists/ barbers
4.	I would lose preferential treatment if changed hairstylists/ barbers
<i>Uncertainty costs</i>	
1.	I am not sure what the level of service would be if I switched to a new hairstylist/ barber
2.	If I were to change hairstylists/ barbers, the service I might receive at the new place could be worse than the service I now receive
3.	The service from another hairstylist/ barber could be worse than the service I now receive
<i>Post-switching behavioural and cognitive costs</i>	
1.	If I were to switch hairstylists/ barbers, I would have to learn how things work at a new one
2.	I would be unfamiliar with the policies of a new hairstylist/ barber
3.	If I changed hairstylists/ barbers, I would have to learn how the "system works," at a new one
4.	Changing hairstylist/ barber would mean I would have learned about the policies of a new one
<i>Sunk costs</i>	
1.	A lot of energy, time, and effort have gone into building and maintaining the relationship with this hairstylist/ barber
2.	Overall, I have invested a lot in the relationship with this hairstylist/ barber
3.	All the things considered, I have put a lot into previous dealings with this hairstylist/ barber
4.	I have spent a lot of time and money at this hairstylist/ barber
5.	I have not invested much in the relationship with this hairstylist/ barber
<i>Setup costs</i>	
1.	If I changed hairstylists/ barber, it would take a lot of time and effort on my part to explain to the new hairstylist/ barber what I like and what I want
2.	If I changed hairstylists/ barbers, I would have to explain things to my new hairstylist/ barber
3.	There is not much time and effort involved when you start using a new hairstylist/ barber

Table 18: items of "Switching Barriers" used by Jones et al. (2002) [52]

Item	Description
<i>Switching cost</i>	
SW1	It would cost my company a lot of money to switch from DPS to another courier firm
SW2	It would take my company a lot of effort to switch from DPS to another courier firm
SW3	It would take my company a lot of time to switch from DPS to another courier firm
SW4	If my company changes from DPS to another company, some new technological problems would arise
SW5	My company would feel uncertain if we have to choose a new courier firm

Table 19: items of "Switching Cost" used by Lam et al. (2004) [56]

Finally, Bell et al. (2005) [8] consider that switching costs are a function of time and of the phase of development of the relationship between customer and company. The customers (and the companies) usually make specific investments in the relationship according to its maturity (eg: learning of procedures, preferences, own systems, the development of trust in a service provider) and these investments increase customers' perceptions of the costs of switching. In their study, although it is based on the definition of perceived switching costs given by Jones et al. (2002) [52] (perceived economic and psychological costs associated with the change from one provider to another), they greatly simplify their work by proposing, based also on the set of sub-scales proposed by Jones et al. (2002) [52], a final scale of three items adapted to the financial services context (see *table 20*):

<b>Perceived Switching Costs</b>
<b>1. If I changed firms, it would take a lot of effort to find a new one</b>
<b>2. If I changed firms, it would take a lot of time and effort on my part to explain to the new financial adviser what I like and what I want</b>
<b>3. If I were to switch firms, I would have to learn how things work at the new one</b>

Table 20: items of "Perceived Switching Costs" used by Bell et al. (2005) [8]

## Other Variables

The bibliography in the field of customer loyalty is extensive, and its revision shows that there are also authors who have considered alternative variables in the design of a descriptive model for the construction of loyalty bonds with customers; variables which have notable effects on the process due to the specific context in which the study was performed. We believe it is useful to review these briefly.

### ***"Unappreciated" variables***

We use "unappreciated" variables to refer to those values that are not connected to the customer's perceived satisfaction with a given service. Thus, for example, Chen and Hitt (2002) [20] provide, in the context of the online stock broking industry, a descriptive model of disloyalty, studying characteristics of the firm/web page: the quality of the system and the information, user friendliness, level of customisation, broker costs and variety in the product portfolio; demographic characteristics of the customer: age, sex, income, education, market size, race, household components, marital status and occupation; and customer usage variables: frequency of usage of the website, number of brokers used and change in usage patterns.

### ***Length of relationship with the service provider***

This variable was considered, in the study by Jones et al. (2000) [51]. The length of time for which the consumer had maintained a relationship with his current service provider was included in order to control the fact that satisfaction and its behavioural consequences can differ when this is based only on sparse usage rather than when it is built up over years of repeated use. This variable is measured through the following item:

- "Approximately how long have you used this bank?"

### ***Indifference and Inertia***

The literature related to the measurement of *indifference* is scarce, although on occasions it has been used in marketing literature in relation to a “neither positive nor negative” customer attitude towards advertising. Some research refers to the perceptions of spending and homogeneity in the service provided by a given industry as factors that determine the level of customer *indifference* toward change [57].

Meanwhile, Huang and Yu (1999) [47] made use of the concept “... I am not prepared to make the effort needed to change”. In this way, they defined *inertia* as a type of unconscious human emotion, conceptualising it as a unidimensional variable consistent with a pattern of passive service without real loyalty.

Ranaweera and Nelly (2003) [70] included these two new dimensions in their work. They measured indifference using a two-item scale suggested by Lambert (1998) [57], which measured perceptions of the offer homogeneity between different companies and the monthly spending level. For their part, they evaluated inertia using a sentence consistent with the work of Huang and Yu (1999) [47]: “I can’t be bothered changing my phone company”.

### ***Expertise level or grade of specialisation***

Bell et al. (2005) [8] included the variable *expertise level* in the model with which they proposed to explain customer *loyalty* in the finance industry. In their study, specialisation of the investment is considered as the extension of customers’ prior knowledge of the product, which they use to evaluate the profitability that will result. The concept measures customer expertise in relation to investments in the market, more than their knowledge of one particular provider of financial services. It was estimated using a four-item scale developed by Sharma and Patterson (2000) [75], making slight changes to adapt it to the context of the study (see *table 21*):

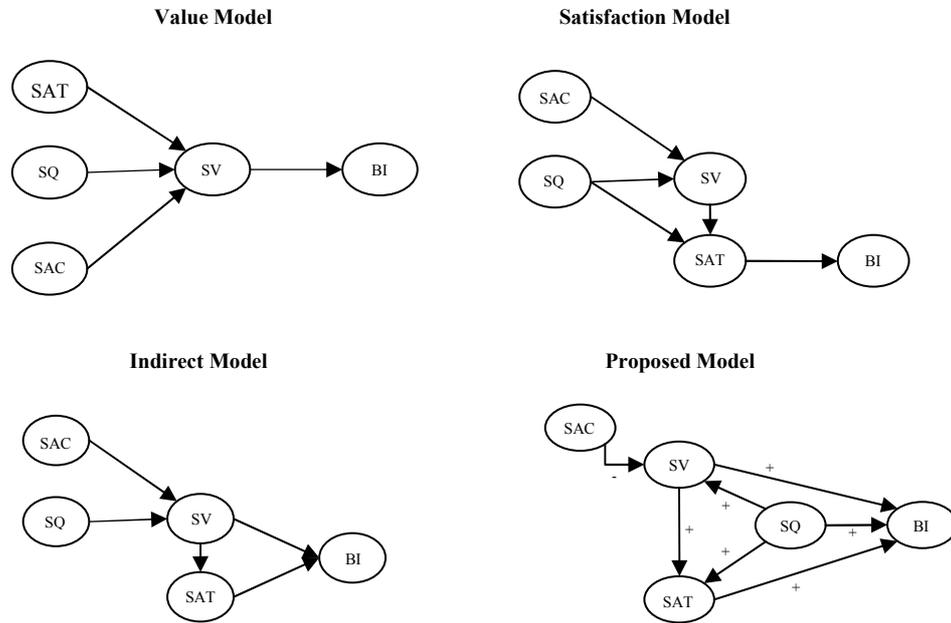
<b><i>Investment Expertise</i></b>
<b>1. I possess good knowledge of financial planning services and products</b>
<b>2. I am quite experienced in this area</b>

Table 21: items of “Investment Expertise” used by Bell et al. (2005) [8]

## **2.2 Models of Loyalty**

As mentioned in the introduction, the objective of this section is to present, chronologically, the main descriptive models of loyalty proposed in recent literature.

- The research carried out by Cronin et al. (2000) [21] was focussed on the context of services marketing -spectator sports, participation sports, entertainment, health, long-distance phone calling and fast food- and used four explanatory models of loyalty (see *figure 4*) based on *satisfaction*, *service quality*, *sacrifice* and the *service value*. While the first three of these are based on already existing literature [4, 32, 63, 78] the fourth was proposed by this study.



SAT: satisfaction SAC: sacrifice SV: service value SQ: service quality BI: Behavioural Intentions (repeat purchase and recommendation)

Figure 4: Model analysed by Cronin et al., (2000) [21]

Based on the statistical analysis carried out Cronin et al. [21] confirmed empirically that the data is better adapted to the model proposed, making it possible to explain a greater part of the variation in Behavioural Intentions (BI). The only hypothesis that was not supported by the data was the one referring to *sacrifice* as a factor influencing *service value*.

- For Jones et al. (2000) [51], customers’ repeat purchase intentions go beyond satisfaction. For this reason they propose a model (see *figure 5*) in which the switching barriers appear as factors which have a positive influence on customer decisions to remain loyal to a service provider.

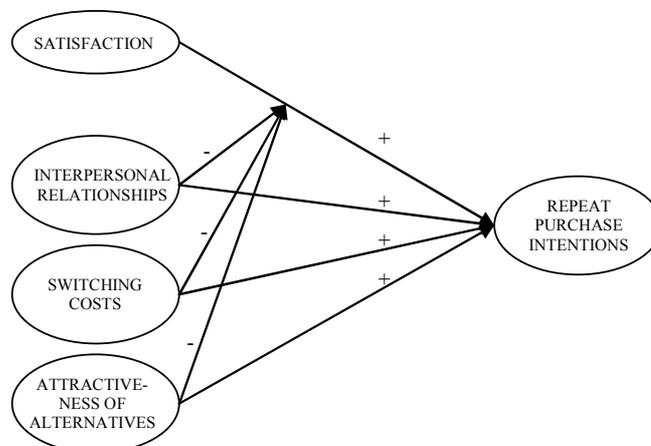


Figure 5: Model proposed by Jones et al., (2000) [51]

The results of the experiment showed that the influence of satisfaction on repeat purchase intentions decreases under the condition of strong switching barriers. On the other hand, they observed that although the switching barriers do not influence the repeat purchase intention when satisfaction is high, they did have a positive influence on repeat purchase intention when satisfaction was low.

- Meanwhile, the model proposed by Chen and Hitt (2002) [20] explains “disloyalty” -switching or termination-, in the context of the online stock broking industry, based on “unappreciated” variables: customers characteristics (related to demographics and usage patterns) and website characteristics (see *figure 6*).

All the hypotheses found empirical support with the exception of the negative relationships between switching and the level of personalisation of the website; termination and the level of website customisation; termination and the quality of the website; termination and the quantity of offers and, finally, termination and the user-friendliness of the website.

- The descriptive model of loyalty proposed by Ranaweera and Nelly (2003) [70], in the framework of the UK telecommunications market, analyses the indirect effects that indifference and price have on the relationship between service quality and customer retention (see *figure 7*). In this study, the authors propose that the positive effect of the service quality is less intense if indifference is greater and more intense if the perceived price is higher.

The statistical analysis carried out supported all the hypotheses except for the supposed positive relationship between inertia and customer retention.

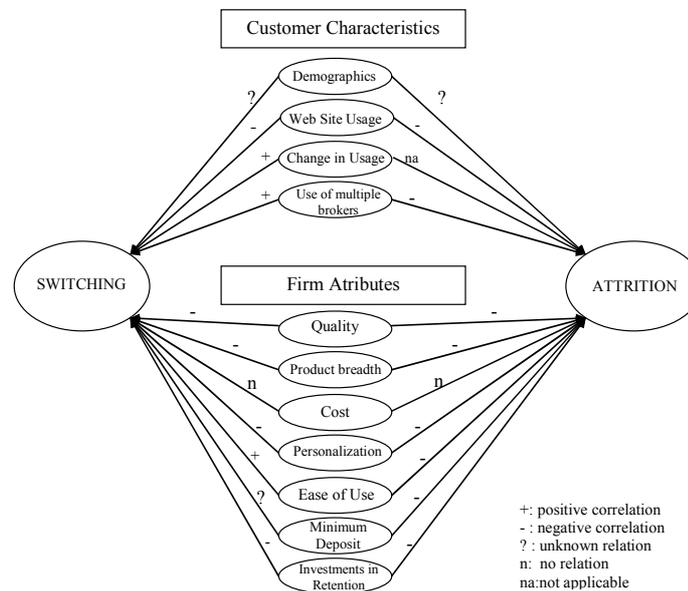
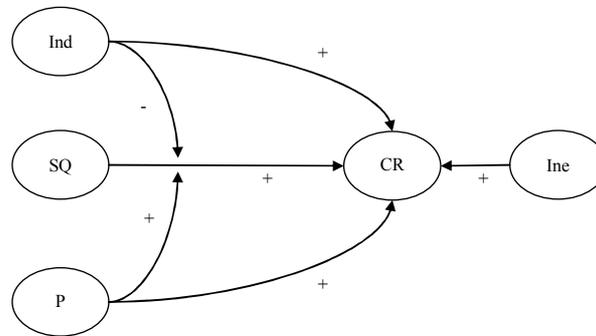


Figure 6: Model proposed by Chen and Hitt et al., (2002) [20]



**Ind:** indifference  
**Ine:** inertia

**SQ:** service quality  
**CR:** customer retention (repeat purchase intentions)

**P:** price perception

Figure 7: Model proposed by Ranaweera and Nelly, (2003) [70]

- Patterson et al. (2003) [66] proposed the following descriptive model of loyalty (see *figure 8*) to explain the degree to which the switching barriers explain the variation in repeat purchase intentions from medical services, travel agencies and hairdressers.

After a hierarchical regression analysis -first using only the switching barriers and subsequently adding customer satisfaction- they concluded that switching barriers provide the explanation for most of the variation in repeat purchase intention, with two barriers standing out in these three industries: *loss of treatment* and *loss of good relationship*. Thus, they confirmed that by adding customer satisfaction the impact was greater in hairdressers than in the other two industries analysed.

Another of the intended objectives of the study was to analyse the interactions between satisfaction and different switching barriers, and for this reason they added a term of interaction for each barrier (barrier-satisfaction). No significant interactions were found.

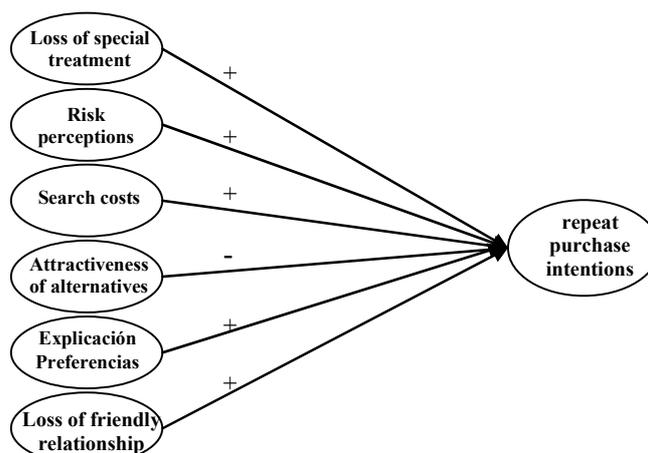


Figure 8: Model proposed by Patterson et al., (2003) [66]

- Gounaris et al. (2003) [37] proposed a model (see *figure 9*) to analyse the relationships between the characteristics associated with the consumer -desire to avoid risk and search for variety-, the brand -brand reputation and availability of substitute products- and the

social environment -the influence of social groups and recommendations from similar groups-, on the one hand, with the four types of loyalty defined -“premium” loyalty, inertia loyalty, “covetous” loyalty and non-loyalty- and on the other hand with the four different types of consumer behaviour identified -“word of mouth” communication, purchase of alternative brands, visits to different shops and non purchase-. The context in which the empirical study was carried out was that of whisky consumers.

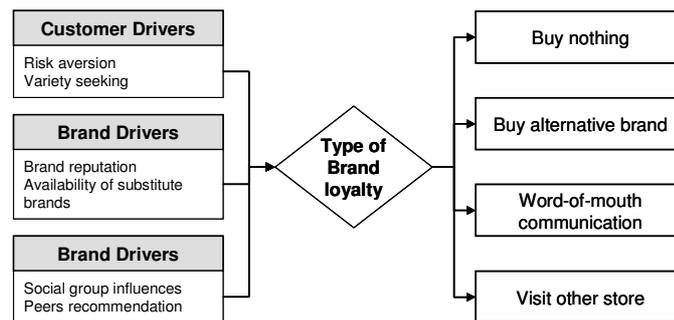


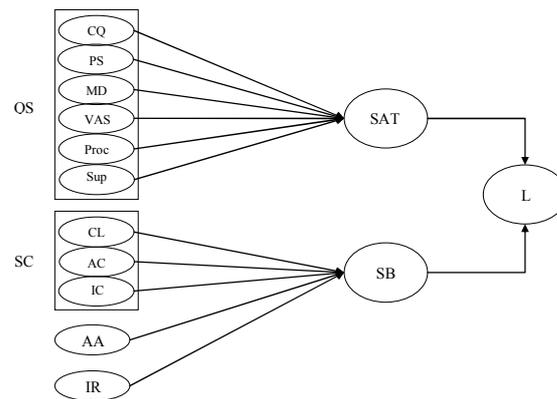
Figure 9: Model proposed by Gounaris et al., (2003) [37]

The statistical analyses carried out on this data set led to the conclusion that desire to avoid risk is significantly related to “premium” loyalty and with “non loyalty”, but not with the other two; that reputation has a positive relationship with “premium” and “covetous” loyalty, a negative relationship with “non loyalty” and no significant relationship with “inertia” loyalty; that the availability of substitutes has a strong positive relationship with “inertia” loyalty, a positive relationship with “non loyalty”, a negative relationship with “covetous” loyalty no significant relationship with “Premium” loyalty; that social influences have a positive relationship with “premium” and “covetous” and no relationship with other types of loyalty, and finally, that both “premium” and “covetous” loyalty have positive relationships with “word of mouth” communication and negative ones with “inertia” loyalty.

- Kim et al. (2000) [53] proposed a descriptive model of loyalty, in the context of Korean mobile phone services, through satisfaction -with *service quality* as the determining factor- and the switching barriers -with switching costs, appeal of the alternatives and interpersonal relationships as the key factors- (see *figure 10*). They did not find any empirical support for hypotheses envisaging a positive relationship between price structures -more reasonable- and satisfaction; between the mobile device and satisfaction; or between convenience of procedures and satisfaction. Nor was there any statistical backing for the predictions of positive relationships between costs of loss and switching barriers; or between the appeal of alternatives and switching barriers.
- In a study based on a courier company, Lam et al. (2004) [56] proposed a descriptive model of *loyalty* -considering repeat purchase and recommendation separately- based on satisfaction, switching costs and the value perceived by the customer (see *figure 11*). In their study, they give equal consideration to the moderating effects of switching costs and the quadratic effects resulting from satisfaction.

Initially they carried out a confirmatory factor analysis including four factors (satisfaction, switching costs and the two types of loyalty) which did not reach the recommended minimum significance levels. Based on these results, they concluded that some of the measurements obtained through this survey could be problematic, carrying out a LISREL analysis which revealed that the last of the five questions relating to switching costs (“*my company would feel uncertain if we have to choose a new courier*”) was not significant.

firm”) was the cause of the poor significance, and the results improved notably when this item was eliminated. Meanwhile, there was no support for the quadratic and moderator effects, so that the hypothesis of the quadratic effect of satisfaction on the two types of loyalty could not be sustained (although the lineal effect was), and nor could the effect of loyalty on satisfaction or the moderator effect of switching costs.



**SQ:** service quality  
**MD:** mobile device  
**Sup:** customer support  
**AC:** adaptation costs  
**IR:** interpersonal relationships  
**L:** loyalty  
**CQ:** call quality  
**VAS:** value added services  
**SC:** switching costs  
**IC:** installation costs  
**SAT:** satisfaction  
**PS:** price structures  
**Proc:** convenience of procedures  
**CL:** costs of loss  
**AA:** attractiveness of alternatives  
**SB:** switching barriers

Figure 10: Model proposed by Kim et al., (2000) [53]

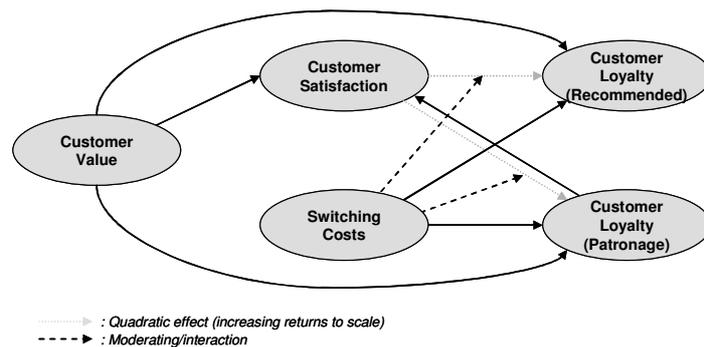


Figure 11: Model proposed by Lam et al., (2004) [56]

- Finally, Fullerton (2004) [34] tried to predict customers’ propensity towards the following behaviours: *intention to recommend*, *intention to change* and *willingness to pay more* depending on their *commitment to continuity*, their *emotional commitment*, the *service quality* -interaction, result and environment- and the *scarcity of alternatives*. For all of this they focused on the framework of service in retail sales (men’s clothing and food products) in Canada. With the objective of finding out if service quality can affect customer behaviour, not only through commitment but also directly, an initial model was proposed (see figure 12) which attributed only a mediator role to the general quality

of service, expanding it subsequently, to a new model which also took the direct effect into account (see *figure 13*).

All the hypotheses defined for both models were supported; except for the positive relationship between general service quality and willingness to pay more (in the expanded model) which did not find acceptance in the case of food product stores.

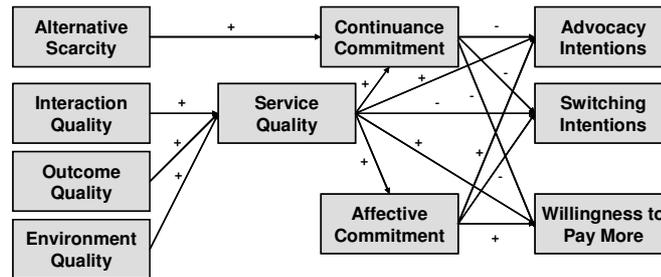


Figure 13: “integrated model of retail service relationships” proposed by Fullerton, (2004) [34]

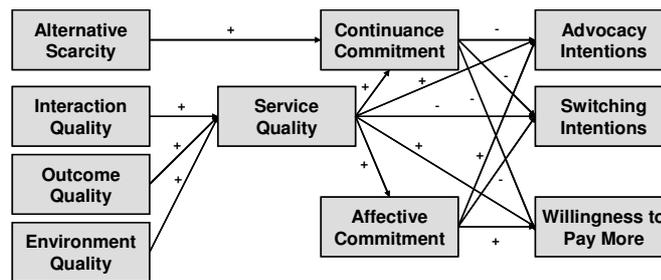


Figure 14: second variant of integrated model proposed by Fullerton, (2004) [34]

### 3. Summary

Strongly competitive globalised markets are driving towards strategies to preserve firms' existing customers and to lure away those of the competition. In this scenario, understanding how customer loyalty construction mechanisms work, especially from the point of view of customer satisfaction, anticipating the customer's intention to abandon a telecommunications service provider, becomes a relevant task for service providers. To this end, in the introduction to this report we propose a complete customer loyalty management model referred to as *Customer Continuity Management*.

Data Mining techniques, applied to market survey information, should play a key role in helping to understand how customer loyalty construction mechanisms work, and how the customer's intention to abandon could be minimised, facilitating the launch of retention-focussed actions.

In this report, we focus on the prevention side of customer loyalty management and, especially, on customer satisfaction and switching barriers. To this end, we have reviewed in some detail the recent literature covering the marketing concept of customer loyalty with the aim of gaining a broad vision that will allow us to create a theoretical framework for the ongoing research project of the first signing author. Some general practical conclusions can be extracted:

- There is no overall model for managing customer loyalty. The difficulty implied by the heterogeneity of markets must be taken into account, and each company must define its own taxonomy of attributes and dimensions through in-depth interviews with management personnel, sector experts and the application of qualitative marketing techniques.
  - No tests have been made of models that take into account customers' "memory" of satisfaction in previous interactions with the company as a dimension that could explain their level of bonding. Although sporadic references have in the past appeared in the literature, the difficulty in obtaining recurring data on service evaluation makes it difficult to build an empirical model.
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