



Channels selection in the retail banking sector:
relationship between the factors influencing the usage and
the perceived service quality

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Abstract

Quality is regarded as one of the main objectives to achieve in a successful organization, where the corporate policy is defined around of how to stay efficient while achieving the quality requirements defined by the consumer. Thus, companies in the banking sector are concentrating their efforts to achieve excellence, beginning with the service channels, which represent the point of contact with their clients.

This dissertation aims to deepen the study on the use of two major distribution channels: the traditional bank branch and the Internet, having as backdrop the perceived of quality of service. In this context, factors influencing the choice and use of banking channels were related to assessments of their quality, allowing to create segments of consumers and to draw strategic conclusions on areas where the service quality provided by the distribution channel is poor and needs attention from the bank.

The research methodology was based on a literature research on the following fields: banking marketing, banking distribution and perceived quality of the services provided. The study was conducted in two phases.

The first corresponds to the creation of a scale to measure the perceived quality of the two channels mentioned, through a Factor Analysis and Internal Consistency.

Finally, the second phase consists of applying a questionnaire to a final sample of 225 subjects and on the interpretation of data obtained through the Importance-Performance Analysis and also, through the non-parametric tests, Mann-Whitney and Kruskal-Wallis and the Correlation Coefficient Spearman's Rho.

Keywords: Distribution channels, perceived quality, provision of banking services, importance-performance analysis.

Resumo

A qualidade é considerada como um dos principais objectivos a atingir numa organização de sucesso, onde a política empresarial é definida em torno de como se manter eficiente sem deixar de atingir os requisitos de qualidade definidos pelo consumidor. Desta forma, as empresas do sector bancário concentram os seus esforços para alcançar a excelência, a começar pelos canais de atendimento, que representam o ponto de contacto com os clientes.

A presente dissertação pretende aprofundar o estudo sobre o uso de dois importantes canais de distribuição: a tradicional agência bancária e a Internet, tendo como pano de fundo a qualidade percebida do serviço. Neste âmbito, os factores que influenciam a escolha e uso dos canais bancários foram relacionados com as avaliações de qualidade dos mesmos, permitindo, criar segmentos de consumidores e retirar conclusões estratégicas sobre áreas onde a qualidade do serviço prestado pelo canal de distribuição é deficitária e necessita de atenção por parte do banco.

A metodologia de investigação assentou numa pesquisa bibliográfica sobre os seguintes campos: marketing bancário, distribuição bancária e qualidade percebida com a prestação do serviço. O estudo foi desenvolvido em duas fases.

A primeira corresponde à criação de uma escala para avaliar a qualidade percebida dos dois canais mencionados, através da Análise Factorial e de Consistência Interna.

A segunda consiste na aplicação de um questionário a uma amostra final de 225 indivíduos e na interpretação dos dados obtidos através da Análise Importância-Performance, recorrendo-se ainda aos testes não-paramétricos de Mann-Whitney e Kruskal-Wallis e ao *Coefficiente de Correlação Ró de Spearman*.

Palavras-chave: Canais de distribuição, qualidade percebida, prestação do serviço bancário, análise de importância-performance.

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Introduction

1.1 Framework and Importance of the theme

Retail banks, today, face formidable challenges. In the current environment, dominated by the globalization and the intense competition, banks are struggling to remain efficient and profitable and, at the same time, to deliver superior customer experience - which sets the tables for improve sales to existing customers. Banks realized that the customers are the biggest and principal source of revenue and it is in them that banks should focus all their attention.

The client interacts with the bank through the service channels, since these organizations are service providers. Thus, the distribution has a unique role for the bank success.

The service channels configuration has been undergoing profound changes; offering products to clients through various channels has, currently, become a common practice. The bank's presence on the Internet is no longer seen as an advantage. If current trends are in any way indicative, the reliance on a single channel is likely to be the exception rather than the rule. Today, the act of closing business is a complex, multi-stage process that occurs over time and across channels. If banks fail to provide consistent service across channels, they not only miss lucrative sales opportunities, they put relationships at risk.

Banks must, therefore, pay attention to this movement and start to think strategically by making an effort to understand their customers and providing high quality services.

Comprehend the factors that will lead consumers to purchase from one channel rather than another gives increasingly important input to channel design and management (Balasubramanian, 1998). One way of understand the customers' encounters and interactions with the banks is through their perceptions of the service quality.

Service quality is the ultimate differentiator, playing a vital role in a company's success and failure, as it has an important impact in customer satisfaction and loyalty.

1.2 General Purpose

Given the current environment, in which the client is considered the king, the distribution a resource of primordial importance and the service quality a desired advantage, the objective of this study is to learn and investigate further the use of banking channels, combining the three aspects mentioned above.

The study will focus on two very different, but equally important, banking channels: the traditional channel, the bank branch, and, especially, the Internet. Although Internet banking has undergone a great development and expansion, it cannot entirely replace the more traditional channel.

The research questions addressed in the study can therefore be stated as follows:

1. Do the factors related to the channels usage have a significantly influence on the service quality evaluation of them?
2. If yes, how this evaluation differs?
3. What are the areas of the service provided by the distribution channels on which banks should concentrate their attention?

It will, also, be created a service quality scale which aims to evaluate the two banking channels and to contribute with data for the research questions.

1.3 Domain and Theoretical Framework

The literature review for the substantiation of the proposed study was based on the following main areas:

- Bank Marketing
- Banking Distribution
- Service Quality

In Chapter II, it is intended to analyze the importance of the distribution for the banking sector, the “Click and Mortar distributions”, the two channels under study and, also, the channel selection process.

The Chapter III focus on the service quality, the main objective here is to collect information to develop a service quality scale.

The following chapter is divided into two parts. The first corresponds to the scale development, while the second characterizes the data collection process, the sample as well as tests the hypotheses posed.

The final chapter presents the conclusions, limitations and lines for future research.

2. Distribution

2.1 Importance of the distribution in the banking sector

The distribution is the point of contact with customers, in what some authors call the moment of truth. As such, the distribution influences the perceived quality of the service and assumes a strategic nature (Grönroos, 1990). A product/service well designed and equipped with a proper operational strategy may fail because the distribution is not appropriate

Distribution is a vital key to marketing success, one of the main components of the Marketing Mix and influences several sectors of an organization. Modifications to the distribution activity can affect various areas: for example, the introduction of a new distribution channel, like the Internet banking, had repercussions not only on the traditional channel, but also on the products selection and presentation, and on communication.

It is essential for financial institutions survival and prosperity, to know how to assemble and, particularly, to manage their distribution networks, making them correspond to their development strategy. Banks are service providers and as such they possess certain characteristics that determine their Marketing and reinforce the importance of distribution as one of their major marketing functions:

1. The intangibility can place a burden on the bank's marketing organization. It cannot appeal to a buyer's sense of touch, taste, smell, sight or hearing. Since a bank is often selling an "intangible" and not necessarily a physical product, it must tell the buyer what the service will do (that is, its "special" benefits). The distribution channel plays a determinant role, to inform and promote the product and also to combat mental and physical intangibility, as tangibility is considered an important feature for the competitiveness of the financial service.

2. The Inseparability explaining by the necessity of simultaneous production and distribution of financial services, i.e., the production is done in contact with the client, whether this is physical (e.g., in the branches) or remote (by Internet, telephone or ATM). Hence the main concern is the creation of time and place utility. The quality of the service/product depends in large part not so much of its characteristics, but on its performance when requested. This performance relies strongly on the processes and on people responsible for the implementation. Again the distribution plays a key position.
3. The Lack of special identity or homogeneity is very common for the consumers, for whom one financial service is very much like other. The reason why a particular financial institution or branch is used is often related to convenience. Each organization must find a way of establishing its identity and implanting this in the mind of the public. As the competing products are similar, the emphasis is on the “package” rather than the product. The “package” consists on branch location, performance of the distribution channels, staff, services, reputation, and advertising.

The last few years have seen dramatic changes in the customers’ interaction with goods and services providers. In addition to traditional retail outlets, today, customers have sophisticated channels like the Internet.

Although the introduction of automatism and technology has become vital in financial institutions, it is necessary to keep a balance in order to establish with the client a good relationship, avoiding a total depersonalization. The excess of technology in terms of networks’ dehumanization must be offset by a new concern with the humanization of spaces and distribution.

Banks have been granting absolutely priority to the customer, seeking to improve and innovate in the way the client relates with the bank, preparing today the future of tomorrow’s channels. Undoubtedly, one of the steps to succeed in the banking sector is related to the ability to manage distribution channels. The distribution can be considered the driving force that generates impulses to lead the organization to a particular course, determining the evolution in their products and businesses.

2.2 Click and mortar Distribution Model

Firms are currently confronted by rapidly changing market conditions, increased technological innovation and changing customer behavior and needs. They have responded by establishing a portfolio of online and offline market channels, ranging from a physical retail presence to Internet-sites. This click and mortar (Katros, 2000) or click and brick (Nicholson, 2002) distribution model allows carrying out a proactive business posture outside the normal opening hours of the branches. And it is also a response to the necessity of reducing costs per transaction, through the deviation of low value-added operations to lower cost channels. Click and mortar firms also have an opportunity to avoid one of the most difficult problems facing Internet-only businesses: the lack of trust. The local physical presence is of major importance when combined with internet commerce. It gives a face and something tangible that enhances customers trust on the organization.

When compared click and mortar banks with online-only banks, the first have certain advantages over the last, such as:

A Face-to-face customer service when it is needed it. Both online-only and click and mortar banks give access to customer's account 24 hours a day. It is possible to perform a great amount of operations like pay bills, monitor the accounts, transfer money and keep track of the transactions and many others. But if there is a difficulty, only the bank with a physical location nearby offers easy access to help solving the problem, at least, that is how many consumers still think and feel. There is a big difference between working out a problem face-to-face with a friendly banker and being on hold with a call center, hoping that whoever the bank's representative answers the call has the authority to fix the problem.

A convenient way to handle with checks and cash. Sooner or later most of consumers will have a check, or even cash, that needs to be deposited. With a click and mortar bank the consumer only has to hand it to the teller. With the virtual banks when the ATM does not allow deposits, the customer has to send it by e-mail to a central corporate address. The local bank teller can also issue cashier's checks or money orders when it is needed.

An alternative when the website is down. An online-only bank still allows ATM transactions if their website goes down, or if there is no Internet access. A click and brick bank, though provides the same possibility, it also has the bank branch service, where tellers can help with the transactions that are not possible to complete at the ATM.

The click-and-mortar firms practice a multichannel strategy in combining “face to face” (traditional service) with “bit to bit” (online service) and in offering the possibility to the customers to use the channel or the combination of channels they prefer.

Rangaswamy and Bruggen (2005) define multichannel strategy as the marketing strategies for reaching clients who use more than one channel to interact with businesses. Multichannel marketing is not equivalent to traditional marketing of multiple channels, in which a company interacts with different segments of clients through different channels. In multichannel marketing, clients can use alternative channels at their discretion and have the option of changing channels whenever they want (Rangaswamy and Bruggen, 2005).

Similarly, Payne and Frow (2004) define the multichannel strategy as the use of the full range of commercially viable channels to serve customers, and the integration of those channels without attempting to influence the channel that the customer wishes to use.

Nicholson et al. (2002) demonstrate, in their study, that multichannel strategies encourage multichannel purchase behavior and develop consumer inventiveness to combine and integrate available channels. Consumers want to use different media in the purchase process. They positively value the possibility of Internet use to compare prices, promotions and stock and to purchase in the nearest store.

According to Steinfield et al. (2002), buyers may move from one channel to another at different stages of a single transaction. When truly integrated channels are provided, many paths are possible, including movement between physical and virtual channels at the same stage in the process. There are many combinations that consumers may wish to use when deciding on a

specific purchase. For example, they can gather information in the physical channel (A1), purchase the product/service online (B0), and obtain after sale support online (C1).

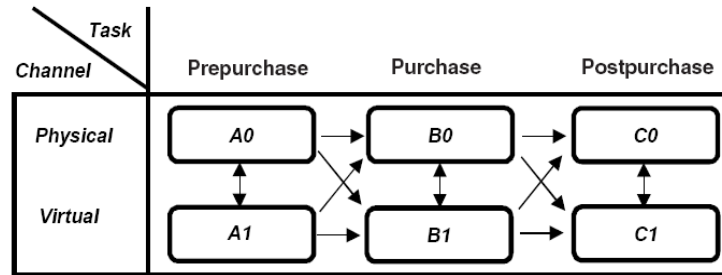


Figure 2.1: Use of Physical and Virtual channels; Source: Steinfield et al., 2002

Therefore, in the following section will be analyzed the traditional and the online banking channel, to better understand their characteristics and potential. These channels, for their particular characteristics, confront the banks with important strategic decisions to achieve the best results with their clients

2.3 Internet

Internet banking is the easiest way to carry out banking transactions in today's hectic schedule. This technology allows the client to access his bank through any computer (or other device) with any operating system, only being necessary to be connected to Internet. Available 7 days a week and 24 hours a day, it enables to check balances, movements and NIB, to make transfers, payments of services and payments to the state, financial and stock market operations, to schedule the payment of the bills, as well as ordering and cancel checks, copies of documents, change of address and obtain useful information for managing the day-to-day. It is still often called Home Banking. However, this term refers to the use of both the telephone and the Internet to carry out electronic banking transactions at home. In the current context of mobile Internet this designation stops, sometimes, of making sense.

Banks invest and expect a lot of this channel. In fact, it can be considered a win-win situation, where both parts (banks and customers) come out winning thanks to technology.

For banks, Internet banking, vastly cheaper, allows reducing costs and the flow of the use of the other channels (mainly of the bank branch bank branches) and, also, enables to retain customers,

as the relations with the customers and the new technologies assume great importance. The Internet banking is an absolutely innovative form of bank-customer interaction, presenting itself as a great way to communicate with the bank.

For customers, which intervene in all the phases of the process since Internet banking uses the customers' computer, software, Internet and their manpower to perform operations, this channel offers convenience and much inferior services' costs compared with those charged in the bank branches, otherwise there would be no advantages.

	Advantages	Disadvantages
Bank	Reduced queues at the banks; Database marketing tools; Acquisition of new customer segments potentially very lucrative; Costs reduction; Extent of coverage;	Competitive threats; Cost of operation; Security; Fraud in the system; Dehumanized contact;
Client	Quickness; Greater convenience; Availability; Some operations are free or prices are relatively lower;	Possible technical error; Losses due to fraud; Depersonalization of the attendance process;

Table 2.1: Pros and cons of Internet banking

Internet banking is used widely by masses and has numerous benefits to offer. Gone are the days, when one had to transact with a bank which was only in his local limits. Online banking has opened the doors for all customers to operate beyond boundaries.

But providing an Internet banking service is no longer an added advantage. Nowadays, its existence is for consumers an inherent and mandatory characteristic; a bank does not differentiate itself from the others by offering online facilities, but by the type and the quality of the service offered.

2.4 Bank Branch

Branches represent the most visible public face of the bank, in where customers can interact face-to-face with a bank teller.

It cannot be denied that the banking experience has definitely evolved, over the years. However, despite the growing influence of online banking, the branch represents the best opportunity for banks to build long term customer relationships and to increase revenues.

Nick Sandall, head of retail banking at Deloitte, said that “too often, financial institutions have viewed the branch network as a significant cost, with the balance shifted towards extracting savings, rather than revenue generation. The branch remains the key point of customer contact, despite the rapid rise of the internet. By changing the basis of competition and leading on service rather than price, banks can transform branches from a perceived burden into a very real boon”.

The authors of *Retail Banking: Facing the Future* published by the Boston Consulting Group (2007), state that “branches will remain critical for customer acquisition and advice-intensive products”, though they warn that online banking will continue to take more transaction business, and even some sales activities, away from branches.

Hence, although a great number of authors (such as Moutinho *et al.*, 1997) declare that the number of branches will probably be less, simply because the industry has to be more efficient and economical, it does not mean that the branches will no longer be of primordial importance: they will still serve their purpose as the personal face on the impersonal commercial bank.

It is necessary an adaptation at these changing times. The branch of the future is likely to be more sales and advice oriented rather than transaction and servicing oriented. And the major driver for this will be the need to increase sales revenue through up-selling and cross-selling, and the changing behavior of customers who want more financial advice in an increasingly complex society and who do not wish to visit branches to carry out basic transactions. (EFMA Banking Advisory Council, 2007)

According Nick Sandall (2007), “It is a *win win* scenario – reward your customers with a superior service and they are more likely to reward you with greater loyalty which, in turn, leads to more cross sales and greater branch profitability”. One of the most important steps to offer

such service is comprehend the customers' behavior, to realize why they chose one channel over another, in order to improve the service and have an offer that meets the needs and specifications of the customers.

2.5 Channel Selection

As written above, the customers require the convenience of banking services, where, when and how they want, whether it be a simple transfer of funds through Internet banking, or an advice in the branch of how to apply their savings. In the presence of such trends, there is a growing need to understand the customers' interaction with the different channels. Therefore, the factors that may influence the customer usage of a particular channel play an important role in this "relation", since they influence the customer behavior.

Although choice of channel has been central to the literature on financial services marketing, the dominant tendency has been to examine the factors influencing the adoption of new channels (Black et al., 2002). This pattern is clearly illustrated in a review of the relevant literature by Hewer and Howcroft (1999) that focus, particularly, on studies of "high technology" service adoption (ATM and telephone banking).

Only in the recent years of the 90's, the studies have centered on internet banking due to the popularization of this channel. (Daniel and Storey, 1997; Morrison and Roberts, 1998; Bradley and Stewart, 2003). Marketing literature has studied the phenomenon of online banking from various perspectives. Some studies have analyzed its adoption and usage (Bradley and Stewart, 2002; Montoya-Weiss, 2003, Laforet and Li, 2005; Polasik and Wisniewski, 2008), while others describe a comparison between Internet banking and the traditional channel (O'Donnell *et al.*, 2002; Durkin *et al.*, 2003;).

Presently, there is a increasing interest about the channel choice in a multichannel environment (Steinfeld *et al.*, 2002; Paine and Frow, 2004; Wiertz, 2004; Guinalú and Torres, 2006; Plé, 2006; Albesa, 2007)

According to the studies found, it is possible to identify three groups of factors that influence the adoption/use. Hence, the customers' profiles, the desire for social relationships and the type of financial operation can be considered according to the literature the main drivers underlying the consumer's decision to use internet banking and bank branches channels.

Factors	Literature
Internet experience and some demographic characteristics (educational level, age, gender, income)	Polasik and Wisniewski, 2008
Age, gender, income, education and human interface	Howcroft, 2002
Educational level, age, income, and prior experience with Internet	Karlajouto <i>et al</i> , 2002
Gender, age, income, educational level and past experience with new technologies	Laforet and Li, 2005
Social interaction and knowledge of the technology	Albesa, 2007
Personal contact and type of financial product	Black <i>et al.</i> , 2002
Type of banking service/product	Roberts and Morison, 1998

Table 2.2: Literature review of the factors influencing channels usage

2.5.1 Customer profiles

Attitudes towards channels usage may be linked to a set of personal characteristics. Demographic characteristics, such as age, gender, income and education are considered, throughout the literature review, good indicators of consumers' behavior.

Literature suggests the existence of gender differences in channels usage, mainly with regard to Internet banking. The results reported in Flavian *et al.* (2006) indicated that women were also less likely to conduct their banking activities online.

Previous research has indicated that a typical user of online banking tends to be relatively young and that a part of the more mature customer segment may perceive computer technologies as confounding and stress-inducing (Im *et al.*, 2003). It should, consequently, come as no surprise that age has been found to be an important determinant in the online banking acceptance and usage studies (Karjaluo, 2002; Flavian *et al.*, 2006; Gan *et al.*, 2006).

Relatively to education, for instance, people with high educational attainment may have an aptitude for computers and possess good information processing skills. These qualities are crucial in the context of electronic banking and, therefore, a relationship between formal education and adoption/usage is propounded.

The income stratum also revealed to have a significantly influence on the results. The findings document that internet users are more probable to have a higher or medium income level. (Karjaluoto *et al.*, 2002)

In addition to the demographic characteristics the internet experience is a determining variable for channels usage. Although all clients feel comfortable with the conventional methods based on personal contact, the channels based on technology present more difficulties. Consumers have to be familiar with a set of accompanying technologies, such as a personal computer and a web browser (Lee *et al.*, 2005). Therefore, it is reasonable to suppose that proficient users of the Internet will consider accessing online banking services to be less complex and will, therefore, show a greater tendency to use those (Black *et al.*, 2001). The effort that the consumers are willing to dedicate to the purchase online may vary with their experience with computers and web sites. In any case, users of a channel should be familiarized and comfortable with the technology employed; otherwise they will reject it (Black *et al.*, 2002; Schoenbachler and Gordon, 2002; Rugimbana, 1995; Montoya-Weiss *et al.*, 2003; Balasubramanian *et al.*, 2005).

In Poland, Polasik and Wisniewski (2008) concluded that in general, minors and mature individuals over the age of 65 were less positively disposed to an internet account. Also, the findings indicate that respondent's gender has a statistically significant impact on the decision to conduct banking operations on the Internet.

In the Finnish market, Karjaluoto *et al.*, (2002) found a typical user of online banking highly educated, quite young and wealthy person with good knowledge of computers and, especially, of the Internet.

In the Portuguese context, the situation is quite similar. According to Marktest (April, 2005), an analysis to the consumer's profile that visits banking sites showed that 72.6% are men, 62.9% are under 35 years old and 50.8% belonged to high and medium social classes.

A dissertation on the profile of the users of Internet banking in Portugal (Guimarães, Filipe, 2009) reinforces these data: individuals of male gender, aged between 25 and 45, married, residents in large urban centers or in the littoral south, with academic qualifications (12^o year or superior degree) and with high income (more than € 1.000/month) correspond to the typical Internet banking user.

Without doubt, the variables described above exert influence on the phenomenon under investigation and, consequently, it is of key importance to have such attributes into account to a better understanding of channels' usage.

2.5.2 Desire for social relationships

The introduction of relationship marketing principles to banking and, indeed, to many service industries underlined the importance of socialization in the service encounter and the recognition that its evaluation is shaped by social and personal forces. It is argued that the social content of service encounters often seems to overshadow any economic rationale that may offer a more expedient alternative (O'Donnell *et al.* 2002).

“According to Solomon *et al.* (1985) in pure service situations, customer satisfaction and repeat patronage may be determined solely by the quality of the personal encounter.” (O'Donnell *et al.*, 2002)

The traditional channels provide a social interaction that the Internet lacks. People may prefer dealing with a person rather than an electronic medium. In this sense, certain people give a lot of importance to personal contact.

Consumers may consider shopping expeditions as an opportunity to socialize and maintain social interactions. For certain purchases, the presence of other people may increase utility because it provides an opportunity to create and maintain human ties (Howcroft *et al.*, 2002; Nicholson *et al.*, 2002; Black *et al.*, 2002; Balasubramanian *et al.*, 2005).

The study completed by Marr and Pretedergast (1993) found that the main variables encouraging consumer acceptance of ATM were convenience, place (location) convenience and simplicity of use. The same study also examined the motives for consumers not using the technology, and found that a preference for dealing with humans was a key factor.

It seems clear that the presence or absence of other people, along with social roles and opportunities for interaction, influence channel selection.

2.5.3 Type of Financial Operation

According to Morrison and Roberts (1998), in a study about the possible tendency of consumers for new means of distribution of banking services, it was found that, although the preference for the method of treatment is important and statistically significant, its influence is secondary to the customers' perception whether the channel is appropriate or not to the service that is being provided.

In Portugal, all financial institutions have banking services accessible from the Internet, allowing its customers to access from home or from another place to their accounts. The type and complexity of operations allowed covered a large range, being possible to perform almost all operations that traditional banking allows.

Financial services, such as funds, investments, accounts and buying and selling shares, are often perceived as difficult for consumers to understand, thus complicating the consumers' decision-making process and attaching a high perceived risk to it (Harrison, 2002). If consumers have extensive knowledge of financial services, they are more likely to use Internet-based financial services. Consumers who do not have knowledge of a certain service may be uncomfortable purchasing the service through the Internet.

In Portugal, consumers (95%) use the Internet banking to make consultations, payments of services or transfers in a small number. It is, therefore, a passive utilization (or operations of transactional type), usually associated with some compromise.

Only a small percentage of users (5%) practice active use of the Internet banking service to make investments and stock transactions (financial applications, investment funds, buying and selling shares). (Dissertation: "the profile of users of home banking in Portugal").

According to this situation, the usage of banking channels clearly depends on and is linked with the type of financial operation.

Having in mind all this information, it would be valuable to cross this information with the customers' evaluations of the branch and Internet channels' service quality, to better understand consumer's behavior regarding the use of these two channels.

3. Quality

3.1 Service Quality

Over the last two decades or so, a great deal of attention has been given to the field of service quality (Parasuraman, 1985, 1988, 1991; Crosby and Stephens 1987; Cronin and Taylor, 1992; Avkiran, 1994; Johnston, 1997; Zeithaml, 2000; Joseph *et al*, 2001). As financial services, particularly banks, compete in the marketplace with generally undifferentiated products, service quality becomes the primary competitive weapon. Furthermore, service quality is considered an essential determinant that allows an organization to differentiate itself from the competition (Gounaris *et al.*, 2003) and also, a central element of the decision of choice, with direct influence on customer's satisfaction and loyalty (Patrício *et al.*, 2003). In general, it is conceded that banks that excel in service quality have a distinct marketing edge because improved levels of service quality are related to higher revenues, increased cross-sell ratios, higher customer retention and financial performance and profitability (Julian and Ramaseshan, 1994; Zeithaml *et al.*, 1996).

Hence, service quality is at the forefront of both the Marketing literature in general, and the services marketing literature in particular. Efforts to define service quality have been made over time. However, there is no universal, parsimonious, or all-encompassing definition or model of quality (Reeves and Bednar, 1994). Before presenting the literature that reflects this lack of consensus, it is necessary, for a full understanding of service quality to recall the characteristics that define service.

According to Gronroos (1990), a service is an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees and /or systems of the service provider, which are provided as solutions to customer problems. (Parasuraman *et al* 1985)

The services are generally described in terms of four unique characteristics: intangibility, heterogeneity, inseparability and perishability.

First, most services are intangible (Parasuraman *et al.*, 1985). Because they are performances rather than objects, precise manufacturing specifications concerning quality can rarely be set. Most services cannot be counted, measured, inventoried, tested and verified in advance to assure quality. Because of intangibility, the firm may find difficult to understand how consumers perceive their services and evaluate service quality (Parasuraman *et al.*, 1985).

Second, services, especially those with high labor content, are heterogeneous: their performance often varies from producer to producer, from customer to customer, and from day to day. Consistency of behavior from service personnel (i.e. uniform quality) is difficult to assure because what the firm intends to deliver may be entirely different from what consumer receives.

Third, production and consumption of many services are inseparable. It is not possible for the provider to hide some error or break in quality. In addition, consumer involvement in the process of the service delivery means that the provider does not have a total control on service's experience (Ghobadian, Speller, and Jones, 1994). In this condition, the input of the consumer becomes vital for the service quality performance (Parasuraman *et al.*, 1985).

Four, perishability is the feature that prevents the services from being stored or inventoried. Unlike products, it is impossible to have a final inspection for quality. It must be done right the first time (Ghobadian, Speller, and Jones, 1994).

The phenomenal growth and importance of the services sector and the demonstrated strategic benefits of quality led to a great amount of research in these areas.

The quality is first and foremost an elusive and indistinct construct: quality and its requirements are not easily articulated by consumers (Parasuraman *et al.*, 1985).

Philip Crosbyh defines quality as conformance to specifications (from Parasuraman *et al.*, 1985). These specifications should not be arbitrary; they must be set according to customer needs and wants (Parasuraman *et al.*,1985).

Grönroos (1984) distinguishes between “the technical (outcome) quality” (what is delivered) and “functional quality” (how it is delivered). This author believes the “how” of service delivery – for example, the appearance and behavior of the bank employee – is critical to perceptions of service quality (Parasuraman *et al.*,1985).

Lehtinen and Lehtinen (1991) understand service quality in terms of “process quality” and “output quality”. Process quality is judged by consumers *during* service. Output quality is judged after a service is performed. The bank employee’s conversation and courtesy and apparent skill during the service performance involve process quality; the result with no mistakes after the service performance involves output quality.

One of the most widespread approaches locates service quality perception within the contrast between consumer expectation and actual service performance (Parasuraman, Zeithaml, and Berry, 1985). The quality, in the specific literature, is recognized as a function of the gap between expected service and service received (i.e. it represents the subjective evaluation of the difference between the initial expectation and the final perception of the service performance). Hence, based on this definition of service quality, Parasuraman, Zeithaml, and Berry (1985) developed their gap model of perceived service quality. The model incorporates five gaps: (a) the gap between management’s perceptions of consumer expectations and expected service, (b) the gap between management’s perceptions of consumers’ expectations and the translation of those perceptions into service-quality specification, (c) the gap between translation of perceptions of service-quality specification and service delivery, (d) the gap between service delivery and external communications to consumers, and (e) the gap between the level of service consumers expect and actual service performance. This disconfirmation paradigm conceptualizes the perception of service quality as a difference between expected level of service and actual service performance.

Hence, understanding the customer and what he considers important to his perception of quality it is essential at all times of the definition of the value offer: not only when the direct relationship and service delivery occurs, but from the beginning when the firm tries to capture the customer's need on its proposal.

3.2 Determinants and scales of service quality

3.2.1 Traditional channel

As stated above, there is an abundance of material that examines service quality and related aspects, however, there is no consensus yet as to which one of the measurement scales is robust enough for measuring and comparing service quality

Parasuraman, Zeithaml and Berry (1985, 1988) were amongst the earliest researchers that have conducted well-known studies to uncover key service quality attributes that significantly influence the customer's perceptions of overall service quality. As a result of their researches, these authors developed SERVQUAL. This instrument, consisting of a pair of 22 variables tapping five different constructs, is a service quality framework that measures the gap between customer expectations and service performance. The SERVQUAL scale is the instrument most used to analyze service quality.

Over time, a few variants of the Parasuraman *et al.*'s scale have also been proposed. The SERVPERF scale, developed by Cronin and Taylor (1992), is one of the important variants of the SERVQUAL instrument. It is based on the perceived performance component alone and it is comprised of only 22 items.

In the case of the banking industry, Avkiran (1994) developed the BANKSERV instrument, adapted from SERVQUAL to specifically suit the Australian banking industry. It is an instrument designed to allow customers to reflect on their expectations and perceptions in single statements. It is a 17-item scale divided into four dimensions: staff conduct, credibility, communication, and access to teller services

Johnston (1995) examined 431 personal account customers in UK and divided customers' perceived service quality into 18 attributes: responsiveness, care, availability, reliability,

integrity, friendliness, courtesy, communication, competence, functionality, commitment, access, flexibility, aesthetics, cleanliness/tidiness, comfort and security. The attribute responsiveness proved to be a crucial determinant of quality, as it is a key component in providing satisfaction and the lack of it is a major source of dissatisfaction.

Bahia and Nantel (2000) also proposed an alternative retail banking measure of perceived service quality in retail banking. The Banking Service Quality (BSQ) comprises 31 items with six underlying key dimensions: effectiveness and assurance, access, price, tangibles, service portfolio and reliability.

Oppewal and Vriens (2000) suggested the use of conjoint experiments to measure service quality. They developed an application for measuring retail banking service quality, which consists of 28 attributes including four service quality dimensions, such as: accessibility, competence, accuracy and friendliness and tangibles. Of the four dimensions, the accuracy and friendliness turned out to be the most important factor in determining banking preference, followed by competence, tangibles and accessibility.

Othman and Owen (2001) reviewed the suitability of the original SERVQUAL items in the Islamic banking and conducted a study to develop an instrument to measure customer service quality in Kuwait by taking account of a “Compliance with Islamic law” factor in Islamic beliefs. The instrument created, called CARTER, consists of 34 items across six factors: compliance with Islamic law, assurance, reliability, tangibles, empathy and responsiveness.

3.2.2 Internet banking

As more business move online, research into the determinants and measurement of online service quality has become a research imperative.

Loiacono *et al.* (2002) established a scale called WebQual with 36 items included in 12 constructs: informational fit-to-task, tailored information, trust, response time, ease of understanding, intuitive operations, visual appeal, innovativeness, emotional appeal, consistent image, on-line completeness and relative advantage. However, this scale’s primary purpose is to generate information for Web site designers rather than to measure service quality as

experienced by customers. The research that produced the scale involved students visiting Web sites to evaluate them rather than actual purchasers evaluating their experiences.

Zeithaml *et al.*, (2000, 2002) developed e- SERQUAL for assess Web site's quality. The model is composed of 7 service quality characteristics: efficiency, fulfillment, reliability, privacy, responsiveness, compensation and contact. These items form two scales: a core service scale (efficiency, fulfillment, reliability, privacy), that is used to measure the customers' perceptions of service quality delivered by online retailers and a recovery service scale (responsiveness, compensation and contact), consisting by the dimensions that only become salient when online customers have questions or run into problems.

Yoo and Donthu (2001) developed an instrument to measure the perceived quality of an Internet shopping site, SITEQUAL, by asking students in two marketing classes to generate appropriate questions. After several iterations, the instrument was reduced to 9-items to measure four dimensions (only two items for most dimensions): ease of use, aesthetic design, processing speed and security. This scale can be used to evaluate the quality of Internet shopping sites and to examine how site quality affects visitors' online behavior, such as search patterns, site patronization and buying decisions. However, Parasuraman, Zeithaml and Malhotra (2005) defend that, "like WebQual, SITEQUAL does not capture all aspects of the purchasing process, as the scales were designed to be answered without a respondent needing to complete the purchasing process, and, therefore, does not constitute a comprehensive assessment of a site's service quality.

Another scale created to measure customer' perception of e-commerce quality was the eTailQ instrument, by Wolfinbarger and Gilly (2003). These authors have used online and offline focus groups, a sorting task and an online-customer-panel survey to develop a 14-item scale containing four factors: Web site design (involving some attributes associated with design as well as an item dealing with personalization and another dealing with product selection), reliability/fulfillment (involving accurate representation of the product, on-time delivery, and accurate orders), privacy/security (feeling safe and trusting of the site), and customer service (combining interest in solving problems, willingness of personnel to help, and prompt answers to inquiries).

Regarding the banking sector in particular, Joseph *et al.* (1999) investigated the influence of technology, such as the ATM, telephone and Internet, on the delivery of banking service. Their study identified six underlying dimensions of electronic banking service quality: convenience/accuracy, feedback/complaint management, efficiency, queue management, accessibility and customization

Jayawardhena and Foley (2000) in an evaluation of banking Web sites, through a total of 12 Internet banking operations in the UK, concluded that the speed to download, the content, design, interactivity, navigation and security are critical to enhancing customer satisfaction.

Jun and Cai (2001), in an attempt to identify key quality attributes of the Internet banking products and services by analyzing Internet Banking customer's comments on their banking experiences, have developed a measurement scale with a total of 17 dimensions grouped under three categories of Internet banking service quality – customer service quality, online systems quality and banking service product quality.

Type	Service			Banking		
	Authors	Dimensions	Measure	Authors	Dimensions	Measure
Off	Parasuraman <i>et al.</i> , (1985, 1988)	Tangibles, Reliability, Responsiveness, Assurance, Empathy	SERVQUAL	Avkiran (1994)	Staff conduct, credibility, communication, and access to teller services	BANKSERV
	Cronin and Taylor (1992)	—	SERVPERF	Bahia and Nantel (2000)	Effectiveness and assurance, access, price, tangibles, service portfolio, reliability.	BSQ
				Oppewal and Vriens (2000)	Accessibility, competence, accuracy and friendliness, tangibles;	—
				Othman and Owen (2001)	Compliance with Islamic law; Assurance; Reliability; Tangibles; Empathy; Responsiveness;	CARTER

Table 3.1: Review of Service Quality literature

Type	Service			Banking		
	Authors	Dimensions	Measure	Authors	Dimensions	Measure
NON	Loiacono <i>et al.</i> (2002)	Informational fit-to-task, tailored information, trust, response time, ease of understanding, intuitive operations, visual appeal, innovativeness, emotional appeal, consistent image, on-line completeness and relative advantage.	WebQual	Joseph <i>et al.</i> (1999)	Convenience/ accuracy, feedback/complaint management, efficiency, queue management, accessibility and customization	—
	Zeithaml, <i>et al.</i> , (2000, 2002)	Efficiency, fulfillment, reliability, privacy, responsiveness, compensation, contact	e- SERQUAL	Jayawardhena and Foley (2000)	Speed to download, the content, design, interactivity, navigation and security	—
	Yoo and Donthu (2001)	Ease of use, aesthetic design, processing speed and security.	SITEQUAL	Jun and Cai (2001)	Customer service quality, online systems quality and banking service product quality	—
	Wolfenbarger and Gilly (2003)	Web site design, reliability/fulfillment, privacy/security, customer service	eTailQ			

Table 3.2: Review of Service Quality scales literature

3.3 SERVQUAL Scale Development

Parasuraman, Zeithaml and Berry (1985) were amongst the earliest researchers to conclude that service quality can neither be conceptualized nor measured by relying on traditional theories concerning the quality of goods. Services by its inherent characteristics require a distinct framework for quality explication and measurement.

The construct of quality as conceptualized in the services literature involves perceived quality. One major contribution of Parasuraman, Zeithaml and Berry (1985, 1988) was to provide a concise definition of this construct. According to these authors, perceived quality is the consumer's judgment about an entity's overall excellence or superiority (Zeithmal, 1987). It differs from objective quality, it is a form of attitude, related but not equivalent to satisfaction, and results from a comparison of expectations ("what customer wants") with perceptions of performance ("what customer gets"). In an equation form, their operationalization of service quality can be expressed as follows

Service Quality = f (Performance-Expectations)

Based on this conceptualization, they proposed a service quality measurement scale called SERVQUAL. Initially ten determinants of service quality were identified. However, Parasuraman *et al.* (1988) later distilled these ten dimensions into five by using a factor analysis. These five dimensions are:

- 1) Tangibles – physical facilities, equipment and appearance of personnel;
- 2) Reliability – ability to perform the promised service dependably and accurately;
- 3) Responsiveness – willingness to help customers and provide prompt service;
- 4) Assurance – knowledge and courtesy of employees and their ability to inspire trust and confidence; and

5) Empathy – caring, the individualized attention the firm provides to its customers.

They have identified a set of 22 pairs of items (22 for expectations and the others 22 matching for perceptions) incorporating the five different dimensions of service quality construct.

$$SQ_i = \sum_{j=1}^k (P_{ij} - E_{ij})$$

Where:

SQ_i = perceived service quality of individual 'i'

k = number of service attributes/items

P = perception of individual 'i' with respect to performance of a service firm attribute 'j'

E = service quality expectation for attribute 'j' that is the relevant norm for individual 'i'

The SERVQUAL survey instrument is a reliable, valid and generalized way to measure the service quality construct. It constitutes an important landmark in the service quality literature and has been extensively used in a plethora of service environments and organizations including banks.

For example, according to Cowling and Newman (1995), one bank found that, among the SERVQUAL five quality dimensions the disparity between the customers' expectations and their perceptions was the highest for reliability, responsiveness, and empathy, and the lowest for tangibles (Jun and Cai, 2001).

However, in spite of the popularity enjoyed by the SERVQUAL scale, it has been the subject of some criticism that has questioned the efficacy of Parasuraman *et al.*'s conceptualization of the service quality construct, and consequently, the SERVQUAL methodology itself. The following section examines this situation.

3.4 Criticisms to the Expectancy-Disconfirmation Paradigm

One of the major criticisms made to the SERVQUAL scale is the fact that it conceptualized the service quality as a disconfirmation process. The rationale of the disconfirmation model is, as stated above, that service quality can be assessed by measuring both expectation (E) and perceptions (P) and equating the difference scores from the two measures to evaluate the service quality.

Validity of (P-E) measurement framework has come under attack due to problems with the conceptualization and measurement of the *expectation* component of the SERVQUAL scale. While perception is definable and measurable in a uncomplicated manner as the consumer's belief about how service is experienced, expectation is subject to multiple interpretations and as such has been operationalized differently by different researchers (e.g., Brown and Swartz, 1989; Dabholkar *et al.*, 2000; Gronroos, 1990; Teas, 1993, 1994).

Another issue is that expectation may attract a social desirability response bias. Respondents may feel motivated to adhere to an "I-have-high-expectations" social norm. Indeed, Parasuraman *et al.* reported that in their testing of the 1988 version, the majority of expectations scores were above six on the seven-point likert scale. The overall mean expectation was 6.22 (Parasuraman *et al.*, 1991b).

A further criticism is that SERVQUAL fails to capture the dynamics of changing expectations. Consumers learn from experiences. The inference in much of Parasuraman *et al.*'s work is that expectations rise over time. An expectations score of seven in 1986 may not necessarily mean the same as an expectations score in 1996.

Francis Buttle critiques SERVQUAL in the article "SERVQUAL: review, critique, research agenda". He agrees and cites Babakus and Boller (1992) about the gaps model, referring that the use of a "gap" approach to service quality measurement is "intuitively appealing" but suspected that the "difference scores do not provide any additional information beyond that already contained in the perceptions component of the SERVQUAL scale". They found that the dominant contributor to the gap score was the perceptions score because of a generalized response tendency to rate expectations high.

Another critique to this scale model is the assumption that positive and negative disconfirmation are symmetrically valent. However, from the customer's perspective, failure to meet expectations often seems a more significant outcome than success in meeting or exceeding expectations (Hardie *et al.*, 1992). Customers will often criticize poor service performance and not praise exceptional performance.

To summarize, a number of questions have been raised concerning the disconfirmation model which underlies the SERVQUAL scale. However, it seems fair to suggest that data captured using this scale may still prove useful, however, in an alternative methodology. That is, the controversy in the literature does not revolve around the validity and reliability of the individual expectations, performance, and importance subscales per se. Rather, the heart of the controversy concerns the reliability and validity of the combined scales. In other words, the gap scores and their manipulation are the basis of the problem.

This leads to the question of what type of measurement should be employed when trying to capture the quality evaluation using the SERVQUAL items.

3.5 Performance-only measures

Due to the referred problems with the disconfirmation model, researchers are increasingly ignoring expectations completely and measuring perceptions as indicators of service quality.

Andaleeb and Basu (1994) and Mittal and Lassar (1996) report that this approach results in good predictive power of service quality.

Cronin and Taylor (1992) were the first to discard the expectations portion of the SERVQUAL. They proposed a scale called SERVPERF based solely on the performance measures of the service, as an alternative to the disconfirmation model of the SERVQUAL instrument.

The term "performance-only measures" has thus come to refer to service quality measures that are based only on consumers' perceptions of the performance of a service provider, as opposed to the difference (or gap) between the consumers' performance perceptions and their performance expectation (M.K. Brady *et al.*, 2002).

Besides theoretical arguments, Cronin and Taylor (1992) provided empirical evidence across four industries (namely banks, pest control, dry cleaning, and fast food) to corroborate the superiority of their 'performance-only' instrument over disconfirmation-based SERVQUAL scale.

Being a variant of the SERVQUAL scale and containing only the perceived performance component, 'performance only' scale is comprised of only 22 items. A higher perceived performance implies higher service quality. In equation form, it can be expressed as:

Where:

$$SQ_i = \sum P_{ij}$$

SQ_i = perceived service quality of individual 'i'

k = number of attributes/items

P = perception of individual 'i' with respect to performance of a service firm on attribute 'j'

The SERVPERF, the performance component of the Service Quality scale (SERVQUAL), not only seems to be a superior predictor of service quality as it has another significant advantage in measuring perceptions only: data collection is much easier since there is a reduction by 50 per cent in the number of items that must be measured in the questionnaire (44 items to 22 items).

Though still lagging behind the SERVQUAL scale in application, researchers have increasingly started making use of the performance-only measure of service quality (Andaleeb and Basu, 1994; Brady *et al.*, 2002; Cronin and Taylor, 1992, 1994).

The performance-only measure scales are more practical, easier to apply, show relatively superiority over the use of the performance-expectations model and should be employed for assessing the service quality of a firm.

However, some researchers (Cronin and Taylor, 1992; Jain, Sanjay K and Gupta, Garima, 2004) consider this scale poor in diagnostic power. Although performance alone reveals being superior, having only one measure is not the most appropriate to make comparisons and to pinpoint areas

for managerial interventions in the event of service quality shortfalls or just to better understand client specifications and profiles.

3.6 Service quality using importance-performance measurement

One popular and proven way to gain valuable information is through the applicability of the Importance-Performance Analysis (IPA) that allows taking reliable strategic decisions through an easy and intuitive method. Developed as a tool for market researchers (Martilla and James, 1977), it is based on the concept that service quality is affected by both the importance and perceived performance of an attribute. Designed for ease of transferring results into actions, the scale's end result is a graph indicating appropriate levels of action.

In this method, determinant attributes of the product or service that is being evaluated are presented as two identical lists. These form the basis for two Likert-type scales. On one scale, participants are asked to rate the attributes as to how important these are, while on the other, they rate how well the program performs.

A mean value (Martilla & James, 1977) for each attribute is determined for each scale (importance and performance scale). These values are then plotted on a two dimensional graph with importance as one axis and performance as the other. The placement of the grid lines defining the quadrants is flexible and is dependent on the mean results of each importance and performance scale.

The graph originated consists of four quadrants that can provide in-depth information on each of the attributes tested: “concentrate here” (Quadrant I or A), “keep up the good work” (Quadrant II or B), “low priority” (Quadrant III or C) and “possible overkill” (Quadrant IV or D).

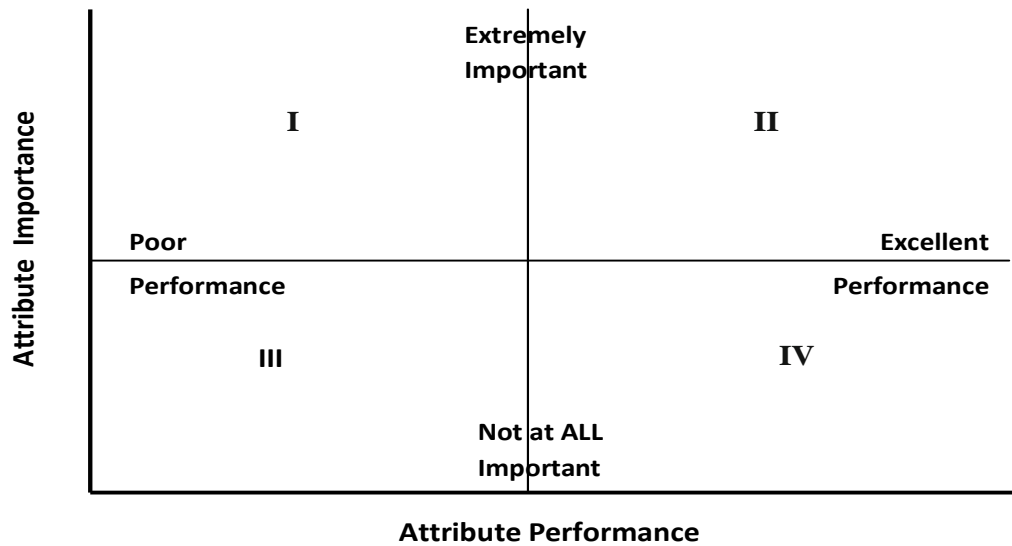


Figure 3.1: The traditional action grid

The Action Grid, illustrated in Figure 3.1, is a potentially valuable tool. It offers a visual display of analysis results which is easily interpreted and provides a basis for formulating market strategies (Martilla and James, 1977, Ennew *et al.*, 1992):

- I. The major marketing efforts should be focused on attributes located in the upper left quadrant. These are product or services attributes that customers consider to be very important, but which have been rated substandard in performance.
- II. Attributes appearing in the upper right quadrant of Figure 3.1 have been rated highly on both importance and performance. All that is needed here is to "keep up the good work."
- III. The attributes in the lower left quadrant have been rated low in terms of both performance and importance. Since customers do not perceive these attributes as very important, they are considered "low priority," and do not require additional resources.
- IV. Attributes falling in the lower right quadrant have been rated high in performance, but are considered low in importance. This would suggest that, perhaps, some of the resources committed to these attributes could be more effectively allocated elsewhere.

Importance-performance analysis uses a three-step process. First, a set of service features or attributes is identified through a literature review or managerial judgment (Martilla and James

1977). Second, consumers are asked two questions about each attribute: "How important is it?" and "How well did the provided product or service perform?". It is important to separate importance and performance measures because it helps to minimize compounding and order effects. According to Martilla and James (1977) "by grouping all of the importance measures in one section and all of the performance measures in a later section, the respondent moves in a natural progression from general to more specific questions with a distinct separation between his ratings for each attribute." Step three involves calculating importance and performance scores for each attribute. These values provide x and y coordinates and enable the graphic illustration.

Through the difference between mean scores of importance and performance of an attribute, it is possible to assess rapidly and directly the perceived service quality. A low value corresponds to a higher perceived quality, or at least that the service offers what the customer wants. The matrix allows complete this information by making it clearer.

Research using the Importance-Performance measurement has been conducted in a number of industries including automobile, food and education (Martilla and James, 1977; Keyt *et al.*, 1994; Alberty 1989) and in the banking industry (Ennew *et al.*, 1993).

Hence, it is safe to conclude that this analysis is well document and has shown the capability to provide service managers with valuable information to improve service quality, through the efficient allocation of resources, essential for a sustainable growth of a firm.

4. Sectoral Context

4.1 Bank Marketing

The Bank Marketing is the result of applying the assumptions of Services Marketing to the banking industry. It is an indispensable tool for the growth of banking institutions, making it even more important as these institutions influence various spheres of the economy

The knowledge and the consideration by the Marketing principles are relatively new for bankers. The bank branches were planned to impress by their strength, importance and grandiosity. The apathy and the lack of care with the customer reflected the banks' approach to the market. The client was only seen as someone seeking for favors and not as a central element for bank's development.

Bank Marketing in Portugal appears in the 80's, driven by the increase of competition, as the result of the reopening of the sector to the private enterprise, and the deregulation. The banks were forced to direct their actions, emphasizing customer welfare, after several decades to restrict their business to receive savings and make loans.

Nicolas Guelman* (1988) argues that "customers are the only possible source of funds that banks need for their business, therefore they should be considered an end not only a means." Hence, bank marketing is the design and delivery of customer needed services worked out by keeping in view the corporate objectives of the bank and environmental constraints.

The financial services marketing function is one of the five subsets of management controllable variables. The financial institutions management systems comprises four major sets of variables: (1) organizational objectives (already discussed), (2) external environment (or non-controllable),

*<http://marketingfaculty.blogspot.com/2006/09/banca-importancia-do-cliente.html>

(3) controllable (or management) variable sets, and (4) organizational and control variables. The four sets (or facets) of variables are interrelated and operate together as a systems (Figure 4.1).

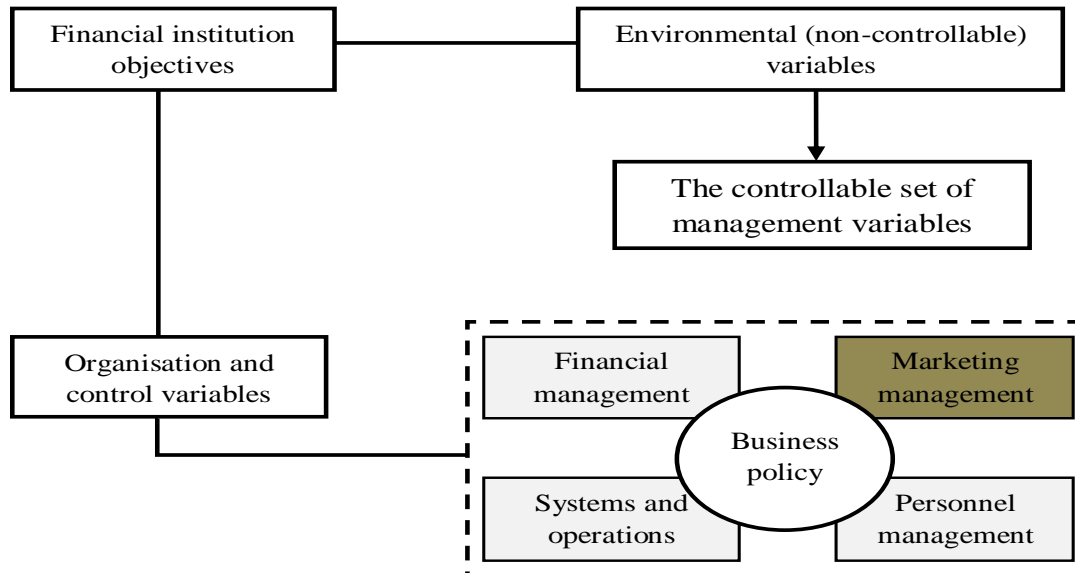


Figure 4.1: Financial institutions management systems

According to Meidan (1996), Marketing in the banking institutions has very specific characteristics and its function focuses mainly on the following activities:

- Customer behavior, attitudes and segmentation;
- Investigate, analyze and interpret customers' attitudes and market developments - maximize the objectives proposed by the banks,
- Product/service development and introduction
- Branch management; location and distribution of financial services;
- Advertising, communication, promotions and publicity
- Pricing of financial services
- Defining marketing strategies, administering and controlling the marketing program.

Marketing should focus primarily on attract, maintain and enhance client relationship, by satisfying the totality of the client's financial service needs. However, these clients belong to

different strata of economy, have different demographic characteristics and particularities. Naturally, the need of each individual group of customers is distinct from the needs of other groups. It is, therefore, necessary to identify different homogenous groups of customers, and, then, determine their perception, needs and wants, design schemes to suit their exact preferences, and deliver them most efficiently.

Financial institutions must control quality before and during the service delivery process in order to prevent or redress any repercussions that poor-quality service might have on the business (Meidan, 1996).

The imperatives of Marketing to conquer the market and the importance of quality to preserve it are put ahead of everything. A policy of Marketing and quality at banks has become a concrete reality to prepare them for the constraints of the future. This is the era where the client is king, in which marketing is the special link between financial institutions and their customers.

4.2 Evolution of the banking sector

No other sector has undergone for changes as profound as those that occurred in the banking sector. To these circumstances have contribute the government deregulation, the technological, cultural and demographic change of the market, the changes in the economic climate, the financial sector consolidation and the adoption of management philosophies increasingly oriented to the market and customer.

The Portuguese Banking System (BPS) in particular has evolved over the recent years, following the steps of the international markets. The increasing competition, the reducing of the interest rate margin and the rapid and intensive dissemination of new information technologies, particularly in the fields of computing and telecommunications, which allowed the Portuguese banks to offer new products and services and improve their management and information systems, have characterize the development and evolution of this sector. It is also important to emphasize the role that the strong tradition of mergers and acquisitions had in the consolidation and in the advancement of the banking sector in Portugal.

- **70's – Nationalizations and tight legislation**

The post April 25, 1974 was characterized by some social tension and by a strong intervention of the State in the economy, predominantly manifested by the nationalization of the largest private groups, including the financial system. There was a transformation in the structure of the Portuguese banking system, due to the nationalizations carried out in the banking market. However, the foreign banks were excluded from this trend, remaining under private management (the Bank of London & South America, which is now in the hands of the Barclays Bank, the Crédit Franco-Portugais, today acting under the designation of the parent company Crédit Lyonnais, and the Bank of Brazil). The opening of new branches was exclusively dependent on the State permission and the banks objectives were oriented to serve the nation's economic policies.

80's – Globalization and competitive market entry

Unlike the 70's, the decade of the 80's was marked by the modernization of the Portuguese banking system and by the resulting increase in competition among the institutions operating in the market. There was also an increase in the investment from the foreign institutions in the country, through the opening of branches, emphasizing the perspective brought by the Single European Market after the entry of Portugal in 1986, in the then European Economic Community (EEC)

Portugal's accession to the (EEC), reshape the national banking market. The globalization encouraged the creation of legislation that aimed to harmonize and to transpose the European directives and regulations for the national legislation (Bank of Portugal, 2008). This scenario has resulted, at the end of the 80's, in an increasing number of institutions operating in Portugal, including an increased investment by foreign institutions.

While in 1983, the Portuguese banking sector comprised 16 institutions, being 13 of them in State ownership since its nationalization in 1975 (the remaining three were the foreign banks),

between 1984 and 1989, that number rose to 29. During this period, however, public banks continued to hold the most of the activity. In terms of the deposits taken, for example, these banks represented, in 1989, over 88% of total.

90's – the privatizations' decade

In the 90s, this situation has changed significantly with the increasing number of privatizations. The institutions under private management represented 10% of the Portuguese banking market in 1987, rising to 70%, ten years later.

Totta & Açores (1989, 1990), Português do Atlântico (1990) and Espírito Santo & Comercial de Lisboa (1990), among others, are examples of the banks that had gone through this privatization process.

The last years of the twentieth century were marked by mergers and acquisitions, guided by the scenario of liberalization and globalization, which started in the 80s with the Single European Act (SEA).

In this decade there was also a rapid diffusion of new systems and information technologies, which had a huge impact on the management and organizational skills of the financial institutions. The costs with the information technology systems became a significant portion of the operating costs of the Portuguese banks (in 1997, these costs represented about 10% of the all operating costs) (Rebelo and Mendes, 1999).

New millennium - Market orientation

Currently, the strategy followed by the Banks has been the organic growth, and the restructuring of the groups through the merging of the different brands within a group in a single brand (e.g. Millennium BCP and Santander Totta).

Nowadays, banks are faced with more and varied competitors than before. The various forces of pressure are forcing the banks to reduce costs and margins and to a constant innovation and improvement of the services provided to the clients, which requires an active approach to the market.

The financial institution has, more than ever, to be excellent and consistent in its communication, reliable and accurate in its quality and attentive to their customers. Marketing, because it hears a lot and acts, always, in the defense of the compatibility of interests of the market and the organization, it has, therefore, an increasingly important role to play in the financial institution. (Antunes, 1994).

4.3 Banks

In Portugal, and particularly in retail banking, all financial institutions are present on the Web, positioned in a model: of a multiproduct scenario - main products / services delivered to their customers are mortgage loans, individual credit, credit cards, deposits, structured products and certain funds, insurance and stock orders; and of a multichannel setting - use complementary, with more or less utilization, without a differentiated offering, of the four distribution channels (ATMs, branches, telephone and Internet), where the price often varies as a means of fostering use.

The following institutions represent the five principal banks in the Portuguese Banking System:

4.3.1 Caixa Geral de Depósitos (CGD)

The CGD was founded 135 years ago on April 10, 1876, having been established as a State bank whose main functions were the receipt of deposits and the public debt management. Subsequently, its operating activity was extended to investment banking and savings.

Currently, the Caixa Geral de Depósitos is the largest Portuguese bank. In 2010, it has been considered, for the third consecutive time, the Most Valuable Banking Brand in Portugal,

according to Brand Finance Banking 500. With a brand value estimated at more than one billion euros, CGD occupied the 101th position in the ranking.


Bank	Market share (%)	Retail customers (millions)	Number of branches 2010	Internet Bank service
 Caixa Geral de Depósitos	34,2	4	853	Caixa Directa created in 2003

Table 4.1: CGD Information

4.3.2 Millennium BCP

In June 1985, it was created the Comercial Português, the first private commercial bank formed after the onset of the liberalization and the development of the Portuguese financial system. With the decision-making center in Portugal, Millennium BCP is the largest Portuguese private bank, with an important position in the Portuguese financial market: it is the second largest in terms of market share, either in the credit to the customers, either in total customer resources and has the largest retail distribution network in the country.


Bank	Market share (%)	Retail customers (millions)	Number of branches 2010	Internet Bank service
 Millennium BCP	22	2,6	909	millenniumbcp.pt

Table 4.2 Millennium bcp Information

4.3.3 Banco Espírito Santos (BES)

Since its foundation in 1869 until today, BES has been an integral part and increasingly important in the history of the Banking sector in Portugal. Today is a traditional bank with a strong presence throughout the country and among major emigrant communities around the world. Considered the second largest private institution in Portugal, it was appointed in January

2011 by the Global Finance magazine, for the 5th consecutive year, the "Best Trade Financial Bank."


Bank	Market share (%)	Retail customers (millions)	Number of branches 2010	Internet Bank service
	20,3	2,1	663	BESnet created in 1998

Table 4.3: BES Information

4.3.4 Santander Totta

Santander Totta is the result of the union, in 2004, of the two of the oldest and most prestigious banks in the Iberian Peninsula (Santander and Totta). With over 150 years of history (1857), it was considered in 2007 the twelfth world bank by market capitalization, the seventh in profits and the entity with the largest retail distribution network in the western world: 10,852 branches. Currently, Santander Totta occupies the position of the third largest private bank in Portugal.


Bank	Market share (%)	Retail customers (millions)	Number of branches 2010	Internet Bank service
	12	1,8	700	Santander Totta NetBanco

Table 4.4: Santander Totta Information

4.3.5 Banco Português de Investimentos

Founded in 1985, BPI is now the 4th largest Portuguese private financial group, with a strong presence in Mozambique (30 % of the capital of BCI Fomento) and Angola (100% of the capital

of BFA). BPI was designated for the 3rd consecutive year the "Best Large Bank in Portugal ", in a study designated "Banking & Insurance", conducted by Deloitte for the magazine Exame.

Bank	Market share (%)	Retail customers (millions)	Number of branches 2010	Internet Bank service
 BPI	10	1,3	696	BPINet created in 2000

Table 4.5: BPI Information

4.4 Distribution channels in the Portuguese context

4.4.1 Bank Branch

Most national banks embody themselves in the market, mainly, through bank branches. The personal contact with the counter is the second most used means to contact with the main bank by the Portuguese's customers (Basef Banca, 2011).

In the last years, mainly by 2008, banks have gone through a big expansion plan with regard to the opening of new branches within the retail segment, in markets considered strategic.

Banks	2006	2007	2008	2009	2010*
Montepio	295	300	320	326	327
CGD	789	811	831	848	853
Millennium bcp	864	885	918	911	909
BPI	574	662	700	697	696

Table 4.6: Number of bank branches - *Until June

This traditional channel is determinant and very important for the Portuguese customers. In a survey, done by the Bank of Portugal, about the financial literacy of Portuguese population it was concluded that its behavior is strongly influence by bank branches specific characteristics. When customers where asked about the main reason for choosing the bank, the proximity to home/office of the bank branch was the second most voted reason and when asked about what led them to choose the bank products that they possess, the advice given in the counter was the principal reason identified.

The awareness of the importance of this channel and the developments in the banking sector, mainly in the marketing field, led to significant transformations, such as in its layout, location and offer of products and services.

The scattered, "gray" and more or less undifferentiated branches have been replaced by a retail network with personalized and highlight image that differentiates the various banks. The conservative and impersonal interior became, in most cases, into a light and friendly atmosphere, inviting the customer to enter and consume. The architecture of a bank branch is designed to provide customers with the impression of open access. Usually, the front façade is almost all glass, and, internally, there are few divisions in order to improve the visibility and the circulation of the clients.

Relatively to the location, Banks are now using geomarketing techniques to identify the best locations for opening new branches. These decisions are considered extremely important as they involve the expenditure of considerable resources over a long period. A good location of a branch can create important strategic advantages, unlikely to be eliminated by competition (Meidan, 1996).

Today, a greater number of financial products and services are available in each point of sale. The banks are following the concept of an one-stop-shopping, in other words, they intend to satisfy the most of the customers' needs at the same point of sale, for example, if the customer wants a health insurance and, at the same time, needs to deposit his money, he can do it all at his bank branch. Cross-selling opportunities and more profitable points of sale by increasing the potential income in order to reduce fixed costs are some of the advantages of this transformation.

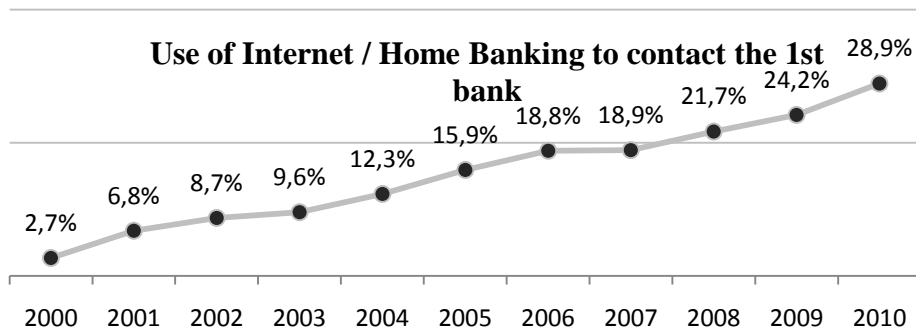
To finalize it is also important to refer that, although its extreme importance, the great dependence of this channel by the Portuguese customers affects negatively the banks efficiency. According to the study by the consultant Arthur D. Little about the most efficient banks in Europe, the Portuguese banks are among the worst places, along with Germany and France. The extensive branch network is pointed as one of the three reasons for this situation: "A large number of small bank branches hamper the use of economies of scale, which can reduce costs

and make the banks more efficient". Thus, it is important to harmonize this channel with others which are more efficient in terms of costs, such as the Internet banking.

The future holds a smaller number of agencies, through the development of computer resources and other services, however the bank branches will never disappear because their role is vital for the connection and the relationship with the client.

4.4.2 Internet Banking

It's in the 90's that Internet Banking (IB) emerges in Portugal. This channel records the highest growth rates when compared to other technologies (like telephone and ATMs), the equivalent to 5 million of users in Portugal (Basef Banca, 2011).



Graphic 4.1: Growth rates of Internet banking use, Basef Banca 2011

After the ATMs and personal contact with the counter, the Internet banking is now the third most widely mean used by the “bankarized” Portuguese people to contact with their main bank (the bank with which they work more). The number of Portuguese who uses this form of contact has registered an exponential increase in the recent years, being in 2010 ten times higher than in 2000.

In 2009, CGD registered a positive evolution in the number of online transactions and active online contracts, respectively, over 12% and 15% than the previous year, maintaining a trend of vitality and strengthening in this channel's utilization.

Caixa directa – Number of active online contracts (Thousands)



Also in 2009, Millennium bcp recorded a growing of users in 8.7% relatively to the previous year, the equivalent of 400 thousands of active online customers. The number of transactions registered an even more significant growth of 20.8%.

The Portuguese customers show they are increasingly available and routed to the use of this channel.

5. Conceptual Framework and Data Analysis

5.1 Conceptual Framework

This dissertation aims to deepen the study on the use and performance of two important banking channels, bank branch and Internet, in a click-and-mortar setting, by focusing on the association between the factors that influence the customer's choice/use of a particular channel and consumer's evaluations of the service quality. For example, attitudes towards channels usage are often linked with personal characteristics, like gender. Hence it will be investigated if there is a difference between the service quality ratings of men and women that can be related with the use they make of a channel.

In the literature, the studies about banking channels often focus on its adoption and usage or in its quality evaluations, being treated as two separate phenomena. Thus and following the Parasuraman *et al.*, (1985) directions for future research, in their combination it may be possible to benefit from a superior knowledge of customers (e.g. segmenting consumers) and banking channels as well as lead to develop better strategic decisions.

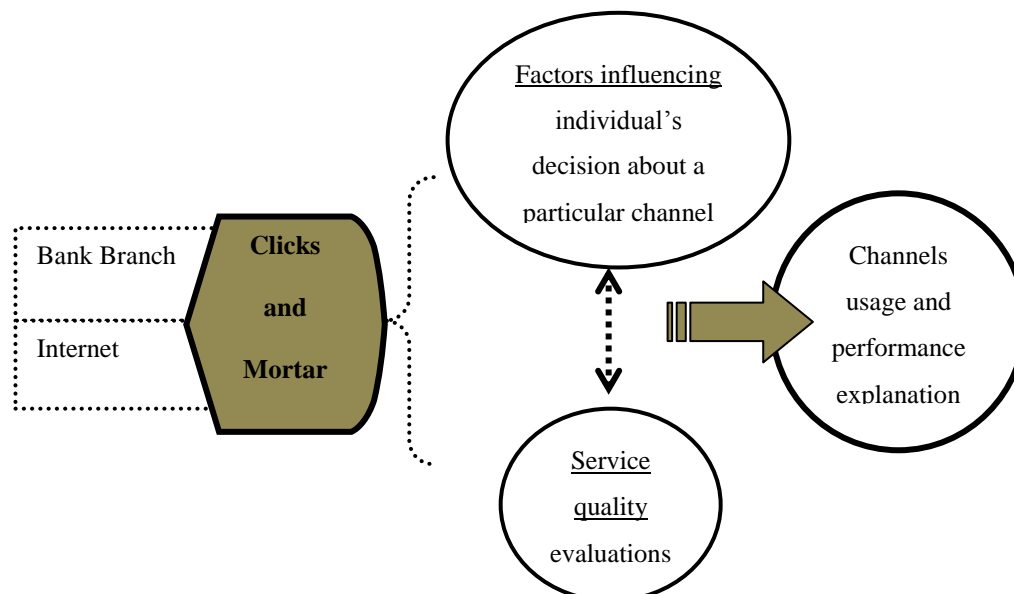


Figure 5.1: Conceptual Model

5.2 Research Hypothesis

Based on the literature review, three categories have been identified, related with the factors that may influence the customer usage of a particular channel and may be associated with differences on the perceived service quality evaluations:

1. Customers' profile
2. Personal Interaction
3. Type of financial operation

Hence, in the context of this study the following hypotheses will be investigated:

- **Customers' profile**

Studies related with consumer's adoption and use of a channel concluded that demographic factors have an impact on consumers' behavior as well as, in the Internet case, the familiarity with this channel. The use of the banking channels differs among customers segments (Bitner et al., 2000; Krishnan and Ramaswamy, 1999; Black et al., 2002).

H1_a: Gender: The fit between the importance given to a set of online attributes and this channel's perceived performance is different between genders, being higher for women;

H1_b: Age: The fit between the importance given to a set of online attributes and this channel's perceived performance is different for the different age groups, especially lower for consumers aged 25 to 45 years;

H1_c: Income: The fit between the importance given to a set of online attributes and this channel's perceived performance is different for the various ranges of income, specifically lower for individuals who earn higher wages;

H1_d: Educational level: The fit between the importance given to a set of online attributes and this channel's perceived performance varies according to the academic qualifications of the consumers, being lower for more educated customers;

H1e: Experience: The fit between the importance given to a set of online attributes and this channel's perceived performance varies according to the familiarity with the internet medium, being lower for consumers who use the Internet to perform a higher number of activities;

Social Relationships

It may be assumed that, if customers are satisfied with the performance of the remote delivery channels like Internet, then the importance they attach to personal interaction will be reduced, and vice-versa, if customers attach a big importance to personal interaction, the evaluation of the channel's performance will not be so satisfying. Therefore, it is interesting to understand the impact and the influence that personal interaction has on the performance evaluations of this remote channel.

H₂: There is a negative correlation between the performance evaluations of Internet banking and the importance of personal interaction.

- **Type of financial operation**

It would be interesting to understand if the consumers who carry out more active character banking operations in the branch have an unsatisfactory perception of the Internet banking performance, more precisely of its capacity of information and clarification.

H₃: Consumers, who use the branch to carry out more complex activities, have a worst performance evaluation of the of the Internet banking channel, especially in its capacity of information and clarification

5.3 Research Method

To test the hypotheses described, the study will behave in two phases. Firstly, a new scale to measure the service quality provided by the bank branch and Internet proved to be necessary to

better fit the purpose of this research. The second phase corresponds to the gathering of the information by the questionnaire's method, already containing the new scale created, and also, to the test of the hypotheses.

5.4 First Phase

5.4.1 Scale development

The procedure followed in developing the instrument mirrors the work of earlier researchers, namely, Churchill (1979) and Parasuraman *et al.* (1988). Thus, the process of developing an instrument involves: (i) identifying the basis of the study, the service-quality domain and the SERVQUAL scale; (ii) generating a sample of items; (iii) collecting data; and (iv) assessing dimensionality, validity and reliability.

As (i) conceptual and measurement issues of service quality construct, including SERVQUAL scale, have been identified in the literature review, the following sections will examine the remaining stages of the process.

5.4.1.1 A sample of items (ii)

The SERVQUAL scale, proposed by Parasuraman *et al.* (1988), has attracted much attention. It has been adapted to a variety of industries, and there is wide recognition of the importance of many of the original SERVQUAL dimensions and scale items.

The SERVQUAL dimensions can be used to measure customer perception of both the human-delivered and automated portions of a hybrid system (Messinger *et al.*,2009), like the click and mortar banking institutions. Thus, the SERVQUAL dimensions and some of its items will be used as the bases to develop the desired scale.

Table 5.1 describes how the five original SERVQUAL dimensions apply not only to human delivered service, but also to internet service.

Traditional Service – Branch	Electronic Service - Internet
Reliability	
The ability to perform the promised service dependably and accurately	Internet system performs as promised to solve customers’ problems in a timely, error-free manner.
Responsiveness	
The willingness to help customers and to provide prompt service	Internet system provides prompt and helpful information service
Assurance	
The knowledge and courtesy of employees and their ability to convey trust and confidence	System instills confidence in customers through a feedback control and a rich and complete information service
Empathy	
The provision of caring, individualized attention to customers	Service can provide personalized service for customers
Tangibles	
The appearance of physical facilities, equipment, personnel and communication materials	The website enhances the overall browsing experience of customers (appearance, language, navigation)

Table 5.1: SERVQUAL dimensions; Human Vs Technology

Now with the dimensions defined for the both channels, it is going to identify the items that will integrate the initial scale. The SERVQUAL and the others service quality scales will be used to find the items for each dimension. The condition for an item to integrate the initial instrument is to appear in three or more scales already developed.

<u>DIMENSIONS</u>	<u>AUTHORS</u>
Reliability	
<u>Traditional</u>	<ul style="list-style-type: none"> ✘ Parasuraman <i>et al.</i>, (1985,1988, 1994); ✘ Dabholkar, P.A., (1996); ✘ Cronin and Taylor, (1992); ✘ Bahia and Nathel, (2000);
1 Performing the service at the designated time; 2 Performing the service as promised;	

3 Keeping records error-free;	✗ Guo, Xin <i>et al.</i> , (2008);
4 Dependability in handling customers' service problems;	✗ Sohn and Tadisina, (2008);
<u>Internet</u>	
5 Accuracy of information on bank's website;	✗ Jayawardhena, Chanaka, (2004);
6 Bank's website performs the task at first attempt;	✗ Lee and Lin, (2005);
7 Correcting quickly and effectively mistakes;	✗ Cristobal <i>et al.</i> , (2007);
	✗ Sohn and Tadisina (2008);
	✗ Khurana, Sunayn, (2009);
Responsiveness	
<u>Traditional</u>	
8 Readiness to respond to customers' requests;	✗ Parasuraman <i>et al.</i> , (1985,1988,1994);
9 Willingness to help customers;	✗ Cronin and Taylor, (1992);
	✗ Bahia and Nathel, (2000);
<u>Internet</u>	
10 Possibility to interact with a service representative of the bank (online chat, Call Back Button);	✗ Spiller and Lohse, (1998);
11 Ease of conclude the transactions;	✗ Jun, Minjoon <i>et al.</i> , (2001);
12 Availability via e-mail;	✗ Bauer, Hans H. <i>et al.</i> ,(2004);
13 Comprehensive FAQs section to help /guide on common problems;	✗ Jayawardhena, Chanaka, (2004);
14 Usefulness of bank's presence on social networks (Facebook, Twitter);	✗ Lee and Lin, (2005);
	✗ Cristobal <i>et al.</i> , (2007);
	✗ Khurana, Sunayn, (2009);
	✗ Author;COMPLETAR COM REVISÃO DE LITERATURA
Assurance	
<u>Traditional</u>	
15 Confidence in the bank's employees (Employees make the customers feel safe in their transactions) ;	✗ Parasuraman <i>et al.</i> , (1985, 1988,1994);
16 Consistently courteous ;	✗ Cronin and Taylor, (1992);
17 Knowledge to answer questions;	✗ Guo, Xin <i>et al.</i> , (2008);
	✗ Bahia and Nathel, (2000);
<u>Internet</u>	
18 Celerity of the confirmation provided by the bank's website (i.e. control);	✗ Jun, Minjoon <i>et al.</i> , (2001);
19 Complete information about the service/products;	✗ Core Bauer, Hans H. <i>et al.</i> , (2004);
20 Confidence given by the security of payment and data transfer (Bank's website instills confidence);	✗ Jayawardhena, Chanaka, (2004);
	✗ Sohn and Tadisina, (2008);
	✗ Khurana, Sunayn,, (2009);

Empathy	
<p><u>Traditional</u></p> <p>21 Recognizing the regular customer (e.g. personalized greeting);</p> <p>22 Recognizing and understanding customer's specific needs;</p> <p>23 Convenient business hours;</p> <p>24 Extension of the waiting time to receive the service;</p> <p>25 Providing individualized attention;</p>	<ul style="list-style-type: none"> ✗ Parasuraman et al., (1985, 1988,1994); ✗ Cronin and Taylor, (1992); ✗ Dabholkar, P.A., (1996); ✗ Spiller and Lohse, (1998); ✗ Bahia and Nathel, (2000); ✗ <i>Oppewal</i> and Vriens, (2000); ✗ Jun, Minjoon et al., (2001); ✗ Sohn and Tadisina, (2008);
<p><u>Internet</u></p> <p>26 Personalized bank's systems (i.e. providing personalized newsletters /alerts that recommend news products/services);</p> <p>27 Interactive features (including demo and calculators);</p>	<ul style="list-style-type: none"> ✗ Dabholkar, P.A., (1996); ✗ Spiller and Lohse, (1998); ✗ Jayawardhena, Chanaka, (2004); ✗ Lee and Lin, (2005); ✗ Cristobal <i>et al.</i>, (2007);
Tangibles	
<p><u>Traditional</u></p> <p>28 Modern, clean and well organized installations;</p> <p>29 Confidentiality and privacy of dealings</p> <p>30 Accessible and easy to find;</p> <p>31 Professional and neat appearance of the employees;</p>	<ul style="list-style-type: none"> ✗ Parasuraman <i>et al.</i>, (1985, 1988,1994); ✗ Cronin and Taylor, (1992); ✗ Bahia and Nathel, (2000); ✗ Roig, Juan <i>et al.</i>, (2006);
<p><u>Internet</u></p> <p>32 Understandable information content and language;</p> <p>33 Ease of navigation and use;</p> <p>34 Attractiveness of the appearance and the site design (good color scheme easy on the eye, visually attractive and an effective layout);</p>	<ul style="list-style-type: none"> ✗ Dabholkar, P.A., (1996); ✗ Spiller and Lohse, (1998); ✗ J. Cox, and B.G. Dale, (2001); ✗ Jun, Minjoon <i>et al.</i>, (2001) ✗ Bauer, Hans H. <i>et al.</i>, (2004); ✗ Jayawardhena, Chanaka, (2004); ✗ Sohn and Tadisina, (2008); ✗ Cristobal <i>et al.</i>, (2007); ✗ Khurana, Sunayn,, (2009);

Table 5.2: Literature review of the service quality items

During this research design stage were found 18-items for traditional service quality and 16-items for internet service quality, distributed by the five SERVQUAL dimensions.

Channel	Traditional/Bank Branch	Internet	Total
Reliability	4	3	7
Responsiveness	2	5	7
Assurance	3	3	6
Empathy	5	2	7
Tangibles	4	3	7
Total	18	16	34

Table 5.3- Items in each SERVQUAL's dimensions

5.4.1.2 Type of measurement

Although the SERVQUAL dimensions have been used as a starting point, the type of measurement that characterizes it will not be applied. Over the years, as previously documented on the literature review, the disconfirmation-based paradigm has been subjected to a lot of criticism. Several researches have been discarding the expectations portion of SERVQUAL in favor of just the performance measures included in the scale.

Hence, based on the findings presented by Cronin and Taylor (1992), the performance-only measures will be used to assess service quality.

The scale and its items should be tested and all of the possible problems within it should be disposed, before its application in the final stage of this study.

As suggested in the literature (Anderson and Gerbing 1988; Bagozzi and Yi 1988; Churchill 1979), scale reliability, dimensionality, and validity were conducted to determine the adequacy of using the scale created to assess the customer perception of bank branch and Internet service quality. In this study, dimensionality and validity assessment were assessed using exploratory factor analysis. To evaluate the internal consistency was used the Cronbach coefficient alpha.

5.4.1.3 Dimensionality and validity assessment

The sample, for the study was composed of 36 responses. For assess dimensionality and validity, the instrument was divided in two parts: the first is composed by the bank branch items and the second by the Internet items.

5.4.1.3.1 EFA-Principal Component

An exploratory factor analysis (EFA-Principal Component) was performed to identify latent factors within the services scales and to verify the reliability of the emerging dimensions. This multivariate statistical procedure aims to reduce the size of the data without information loss, making the information interpretation easier. Hence, an initial set of quantitative variables, correlated among them, will be transformed in another set with fewer variables, uncorrelated (orthogonal) and designated as principal components (factors).

- **Bank branch channel**

In order to apply the factor model, a correlation between the variables must exist. Relatively to the traditional channel's items, the Kaiser–Meyer–Olkin value (KMO=0.807) verified the appropriateness of the sample for performing factor analysis, as it exceeds the 0.5 acceptable limit (Hair et al., 2010; Kaizer, 1974).

The Bartlett sphericity test has associated a level of significance of 0,000, which leads to the rejection of the null hypothesis, i.e., the correlation matrix is not an identity matrix. Therefore, there is correlation between some of the variables.

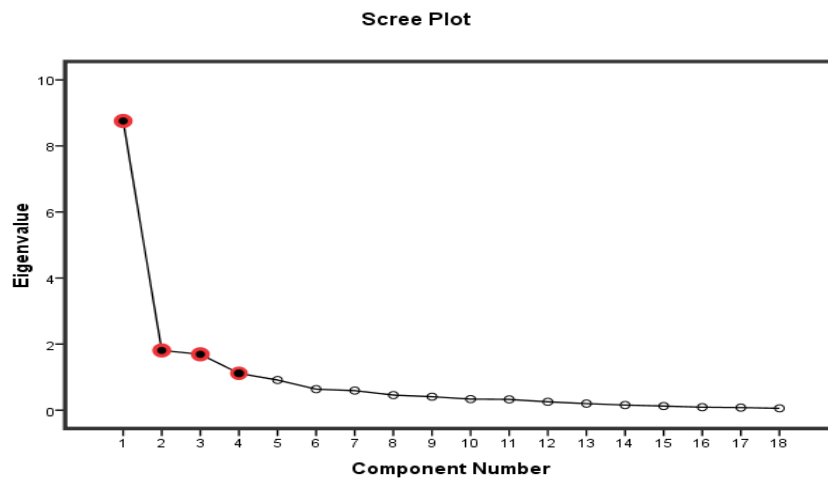
KMO and Bartlett's Test

Kaiser-Meyer-Olkin	Measure of Sampling	,807
Bartlett's Test of Sphericity	Approx. Chi-Square	458,848
	Df	153
	Sig.	,000

Table 5.4: KMO and Bartlett's Test (Bank Branch)

Only one of the variables (the 3rd) possesses communalities lower than 0.6, showing a poor relationship with the factors retained and, therefore, was eliminated to accomplish the analysis.

Consulting the Total Variance Explained and the Reproduced Correlations matrices, it was concluded that there are four factors to retain. Variance analysis identified that the first four components explain 76,593% of the whole result, showing their relevance. The Screen Plot also supports the retention of four factors.



Graphic 5.1: KMO and Bartlett's Test (Bank branch)

Through the rotated component matrix, it is possible to associate to each variable a factor. The orthogonal rotation goal is to unfold the values of the loadings, which permit drawing conclusions easily.

Hence, the variables 9, 8, 16, 4, 25, 15 identify clearly with the factor 1; the variables 21, 22, 23 and 24 with the factor 2; the variables 28, 31, 29 and 30 with the factor 3. And, finally, the variables 1, 2 and 17 with the factor 4.

Rotated Component Matrix^a

	Component			
	1	2	3	4
8_ Readiness to respond to customers' requests	,865			
9_ Willingness of the employees to help	,860			
16_ Consistently courteous	,759			
4_ Dependability in handling customers' service problems	,677			
25_ Individual attention at the branch	,627			
15_ Confidence resulting from the employees' behavior	,569			
21_ Recognized the regular customer		,798		
22_ Understanding of customer needs		,773		
23_ Convenience of operating hours		,735		
24_ Waiting time to be served		,640		
28_ Modern, clean and well organized facilities			,795	
31_ Employees dressed in a caring and professional way			,749	
29_ Confidentiality and privacy of bank premises			,719	
30_ Accessibility of branch (parking spaces, public transport)			,715	
1_ Service as promised				,814
2_ Service at the promised time				,758
17_ Knowledge to answer customers' questions				,718

Table 5.5: Factor analysis: Bank Branch dimensions of service quality

- **Internet channel**

Now with regard to internet subscale analysis, the Kaiser–Meyer–Olkin value (KMO = 0.832) shows a good correlations between the variables. The Bartlett sphericity test, the degree of correlation between the variables (Chi-Square=393,128, $p < 0.000$), is, also, significant. Thus, both tests allow the continuation of the factor analysis.

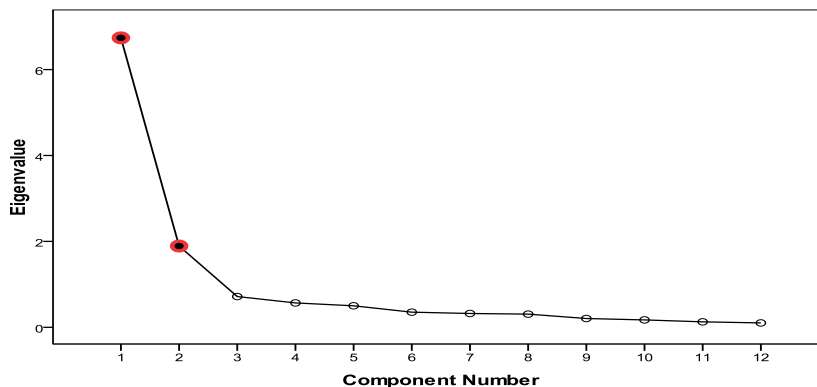
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,832
Bartlett's Test of Sphericity	Approx. Chi-Square	393,128
	df	120
	Sig.	,000

Table 5.6: KMO and Bartlett's Test (Internet Banking)

Four of the sixteen variables were eliminated because their communalities values were lower than 0.6. The **Kaiser criterion** suggests the retention of two factors and the screen plot confirm this result. In fact, the twelve variables are explained in 71,924% by the two common factors, obtained by the extraction method of the principal components.

Scree Plot



Graphic 5.2: KMO and Bartlett's Test (Internet Banking)

Through the orthogonal rotation that converged in three interactions, it is possible to resume the following: the first factor includes variables 20, 32, 19, 18, 5 and 6 and the second factor includes variables 10, 27, 14, 13, 34 and 33.

Rotated Component Matrix^a

	Component	
	1	2
20_Confidence given by the security of payment and data transfer (Bank's website instills confidence)	,854	
32_Accessibility of the language and the information content of the Website	,847	
19_Organized and complete information about products / services on the Website	,835	
18_Celerity of the confirmation provided by the bank's website	,818	
5_Accurate and precise information at the Website	,794	
6_Bank's website performs the task at first attempt	,648	
10_Options (Online chat, Call back button) to contact with a bank representative		,864
27_Interactive features (calculator and simulator)		,858
14_Presence on Facebook / Twitter		,801
13_Comprehensive compilation of FAQs		,745
34_Attractiveness of the design and the appearance of the Website		,727
33_Easy to navigate and use the Website		,686

Table 5.7: Factor analysis: Internet banking dimensions of service quality

5.4.1.3.2 Internal Consistency (Reliability)

By internal consistency, it is understood the degree of uniformity or stability between the subjects' answers to each of the items that composes the test or the subscales (in a longer test).Hence, the internal consistency of the factors may be defined as the proportion of the

variability in the responses resulting from differences among the respondents. That is, the responses differ not because the investigation is confusing and leads to different interpretations, but because respondents have different opinions.

Considering the Likert scale to be tested, the statistical procedure that should be used in this method is the Cronbach's alpha coefficient. This index usually increases when the correlation among the items increase, reflecting the internal consistency or reliability of the test.

Internal consistency ranges between zero and one. It is generally accepted that an α of 0.6 to 0.7 indicates acceptable reliability and above 0.8 indicates good reliability.

In this section, the measurement instrument will not be divided. The factors generated above will all be incorporated as one single scale. The goal, now, is to verify the internal consistency of this scale, in order to apply it in the following stage of the research.

Hence, the reliability of the final scale (6 constructs with a total of 28 questions) was calculated using Cronbach's alpha. As table 5.8 shows the alphas of the 6 constructs ranged from 0.75 to 0.93, with 5 of the 6 constructs having an alpha greater than 0.80. The high alpha values indicated good internal consistency among items within each dimension.

Construct/Factors	Cronbach's Alpha	Channel
Factor 1	0,902	Bank Branch
Factor 2	0,757	Bank Branch
Factor 3	0,808	Bank Branch
Factor 4	0,837	Bank Branch
Factor 5	0,915	Internet Banking
Factor 6	0,902	Internet Banking

Table 5.8: Internal Consistency

The dimensions to emanate from this process and their concise definitions are:

Dimension 1: *Commitment* - Staff's apparent commitment to their work, including their diligence, thoroughness, readiness and goodwill that they take in their job. In short, their dedication to each client.

Dimension 2: *Attentiveness and care* – Concern with the convenience and welfare of the client. This includes the way a customer is received, carefully and without delay.

Dimension 3: *Aesthetics* - This dimension can be characterized by the level to which the components of the service package are pleasing to the customer, including both the appearance and the ambience of the service environment, the appearance and presentation of service facilities and staff.

Dimension 4: *Reliability* – Related with the consistency of the service's performance. This includes punctual service delivery, an ability to keep to agreements made with the customer and the knowledge to satisfy and clarify the customers' doubts. This dimension should reflect the confidence that the clients put on their banks, due to the permanent correct service and to the trusty clarifications

Dimension 5: *Effectiveness and Assurance* - The service ability, effectiveness and fitness for the purpose. The extent to which the Internet service is credible, functional and reliable for the customer. In this dimension, the type of information, the service performed and the control/feedback provided play an important role on customer perception. It can be considered the main dimension of the Internet channel. The items belonging to it are related with the main functions of Internet banking (inform about products / services, check the account balance and perform banking transactions)

Dimension 6: *Helpful features and design* – Important features that act as a satellite to the main service (banking operations). It aims to captivate and attract customers through a website

appealing and easy to navigate, a more directly and rapidly interaction with the bank and, also, meet the customers' concerns and interests through an effective set of tools, like FAQ's and simulators. This dimension intends to enhance and customize the customers' experience.

The scale for assessing the service quality for both channels is ready, being possible to continue the study.

5.4.2 Importance-performance analysis

The importance-performance analysis appears to be a reasonable analysis approach that is easily used. It is not just an analysis methodology. It is implicitly a theory of behavior. Introduced by Martilla and James, 1977, as a way of understanding clients' needs and desires so as to make good management decisions about how to respond to them. An attractive feature of importance-performance analysis is that the results may be graphically displayed on an easily interpreted two-dimensional grid.

Cronin and Taylor (1994) suggested that a way of gaining additional information from a performance-only measurement scale could be in the use of importance-performance maps. That is, maps can be developed for specific data sets that plot consumers' perceptions of the importance of individual scale items relative to perceptions of the bank service performance for each attribute.

Since the scale created, essentially, measures performance, it can be used in conjunction with attribute importance to determine consumer attitudes toward key service attributes. The importance attributes represent the consumer's evaluative criteria in service choice. This, in turn, can be used in determining the firm's marketing strategy.

Thus, the scale created for this study consist of 29 Branch and Internet banking attributes, for which the respondents will have to indicate their perception of the actual bank service performance and, also, the importance of those attributes for them.

5.5 Second Phase

5.5.1 Research methodology

5.5.1.1 Data Collection

A self-administered questionnaire was applied to gather the necessary information to proceed with research. As one of the study sections involves the influence of the consumers' demographic profile, the questionnaire was posted on blogs, forums, social networks and sent by e-mail, with the purpose of obtaining a sample of the population as diverse as possible.

The questionnaire consists of four parts. The first two parts correspond to the application of the scale created in the previous phase of the research.

In Part I, the individuals were asked about the importance they attribute to the bank branch and to the Internet items, through a 5-point rating scale, ranging from "unimportant" to "Very Important", on twenty-nine questions in the questionnaire.

Part II is identical to the first one, however, it is requested for individuals to evaluate the performance, using again a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree".

The third part consists in evaluate the consumer's relation with the Internet and his bank.

Finally, the last part consists of respondents' demographic data (gender, age, income and academic qualifications).

Part I and II	Scale application – In each part: a total of 29 items - 17 questions for bank branch service; - 12 for Internet service
Part III	Hypotheses 1 _e , 2 and 3
Part IV	Hypotheses H1 _{a,b,c,d}

Table 5.9: Justification of the questions prepared

5.5.1.2 Development of measures

The items constituting the scale created will be represented by the dimension to which they belong, that is, each dimension represents the average value of the items that comprises it.

Thus, the measures used to test the hypotheses will not be presented for each item, but for each dimension.

Dimensions	N° Items	Channel
Commitment	6	Bank branch – 1 ^a dimension
Attentiveness and care (Attentiveness/Care)	4	Bank branch – 2 ^a dimension
Aesthetics	4	Bank branch – 3 ^a dimension
Reliability	3	Bank branch – 4 ^a dimension
Effectiveness and Assurance (Effectiveness/Assurance)	6	Internet – 5 ^a dimension of the scale and 1 ^a of the Internet
Helpful features and design (Helpful features/design)	6	Internet – 6 ^a dimension of the scale and 2 ^a of the Internet

Table 5.10: Dimensions of the service quality scale

The measure values of these dimensions will be the starting point to proceed with the study:

- **Performance** - Represents how the service was carried out. Several authors (Jain and Gupta, 2004) defend the importance of this measure arguing that service quality is directly influenced by the perceived performance.
- **Importance** - This measure assesses consumers' preferences. The aim is to determine if an attribute of a service is important and how much important it is. The replacement of the respondents' expectations, commonly used in the application of the Servqual scale, by the importance measure is advocated by Cronin and Taylor (1994).
- **Quality ($I_{\text{importance}} - P_{\text{performance}}$)** - The quality is measured by the gap between the importance assigned to the various items that characterize the service and their perceived performance.

5.5.1.3 Procedure to test hypotheses

- **First group - Consumer's profile ($H1_{a,b,c,d,e}$)**

To start, the importance-performance model will be used to compare the values of the Internet dimensions for the characteristic of the consumer's profile in analysis.

This first phase includes a table, a line chart and an importance-performance matrix.

The table contains the mean values of the following measures: importance, performance and service quality (I-P). The graphical analysis provides a quick and enlightening observation of the service quality. Finally, the matrix enables to substantiate the preceding analysis and to draw new conclusions, since this two-dimensional matrix has the benefit of pinpointing which service dimensions should be maintained at present levels and “those on which significant improvement will have little impact” (Kitcharoen, 1994). The vertical axis (importance) and the horizontal axis (performance) will represent the mean values of importance and performance measures of the general evaluations of the banking service, for each channel.

In a second phase, it will be assessed the statistical validity of the conclusions drawn from the first phase. For hypotheses H1_a, it will be applied the Mann-Whitney test ($k \leq 2$), while the hypotheses H1_{b, c, d, e} will be tested using the Kruskal-Wallis test. Both tests are non-parametric alternatives to the t-test and one-way ANOVA, respectively.

- **Second group - Personal Interaction (H2)**

To test H2, the Importance-performance analysis will be used again, through a table containing the mean values of performance and service quality for each Internet dimension.

The Spearman Rho will be applied to conclude on the existence of the correlation that the hypothesis refers. This Coefficient is used to determine the intensity of the correlation between ordinal variables. Finally, it will be applied the Kruskal-Wallis test to the performance and service quality measures, to reinforce the veracity of the previous results

- **Third group - Type of financial operation (H3)**

The study of hypothesis 3 will consist of two phases:

In the first phase, it is intended to study whether there are differences in performance evaluations for individuals who use the bank branch for more complex activities and those who prefer the Internet.

Taking into account the literature review, the complex banking activities were considered as being the following ones: purchase of banking products/services, loans, investments and contact

the account manager. These activities are perceived by consumers as involving greater risk and knowledge.

A table containing the mean values of the performance and service quality will be use once more, as well as, a line chart with I-P scores for each complex activity. Finally, the Kruskal-Wallis test will be applied to verify if it really exist differences in the performance ratings.

If there are differences it is possible to move to the next step.

In this stage, it is intended to verify if the items related with the capacity of information and clarification of the Internet banking service have a lower perceived performance when compared with the other items, for individuals who prefer to use the bank branch.

The following items were considered as attributes of clarification and information: language and the information content of the Website, information about products / services on the Website, options (online chat, call back button) to contact with a bank representative, interactive features (calculator and simulator), presence in social networks and the compilation of FAQs.

For each item will be calculated the difference between evaluations of performance between the supporters of the branch and the Internet. The same will be done for the two Internet dimensions (bank branch performance - Internet performance). However, from each dimension the items in study were removed, as they are now calculated apart.

Lastly, the values of the items obtained through the subtractions will be compared with the values of their previously dimensions. If the values of the items are higher than the values of the dimensions, it can be concluded that the hypothesis H3 is true.

5.5.2 Analysis and Interpretation of the questionnaire results

5.5.2.1 Section I - Descriptive Statistics

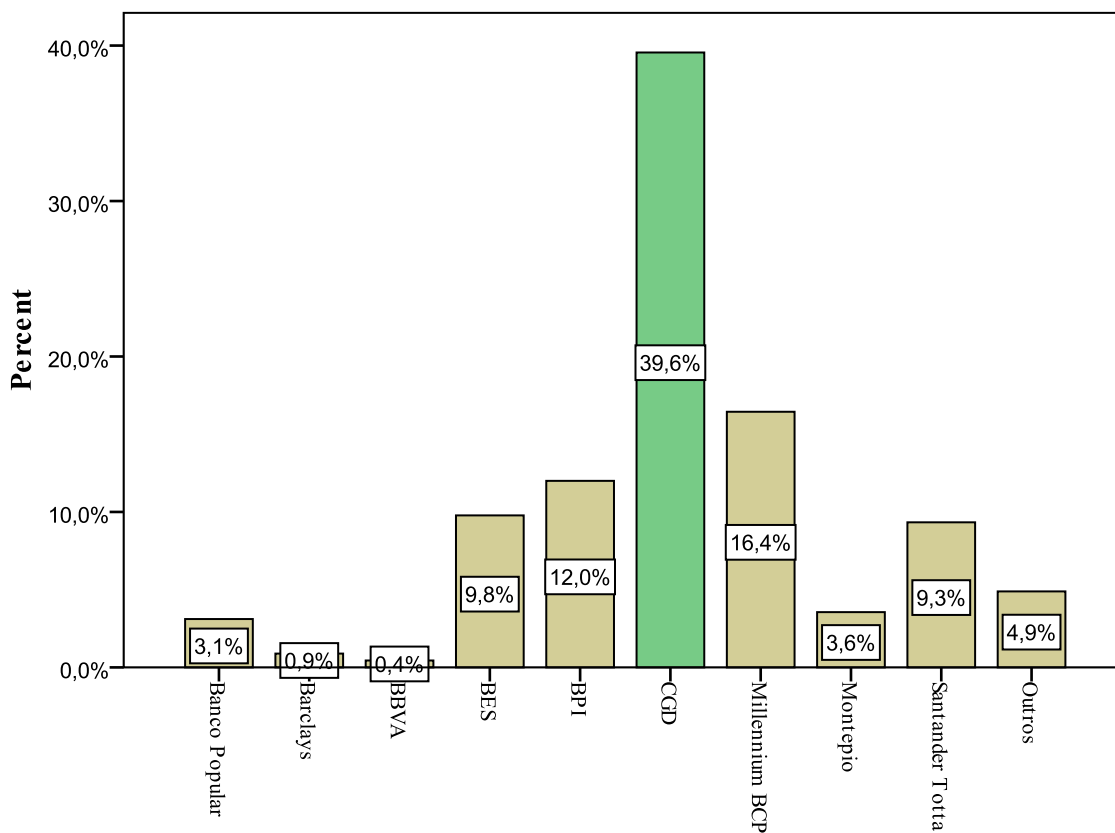
5.5.2.1.1 General Characteristics of Sampled Individuals

The final sample was composed of 225 individuals, all internet users.

Sample/Variable	Percentage
Gender	
Women	44,9
Men	55,1
Total	100
Age	
18-24	31,6
25-34	22,2
45-54	12,0
55-64	21,8
Total	100
Income	
Bellow 1000€	45,3
1001€ - 2000€	55,1
3001€ - 4000€	58
Above 4000€	3,1
Total	100
Academic Qualifications	
Secondary	18,2
Professionalizing	13,8
Higher education	68,0
Total	100

Table 5.11 - Demographic characteristics of the respondents

The tables above show the baseline characteristics of the respondents. The number of men is slightly higher than the number of women (less 23 women). The majority of the individuals belong to the age group of 18-24 and 25-34 years old and receive less than 2001€. And, there is a predominance of individuals with a higher education degree.



Graphic 5.3: Main banks of the respondents

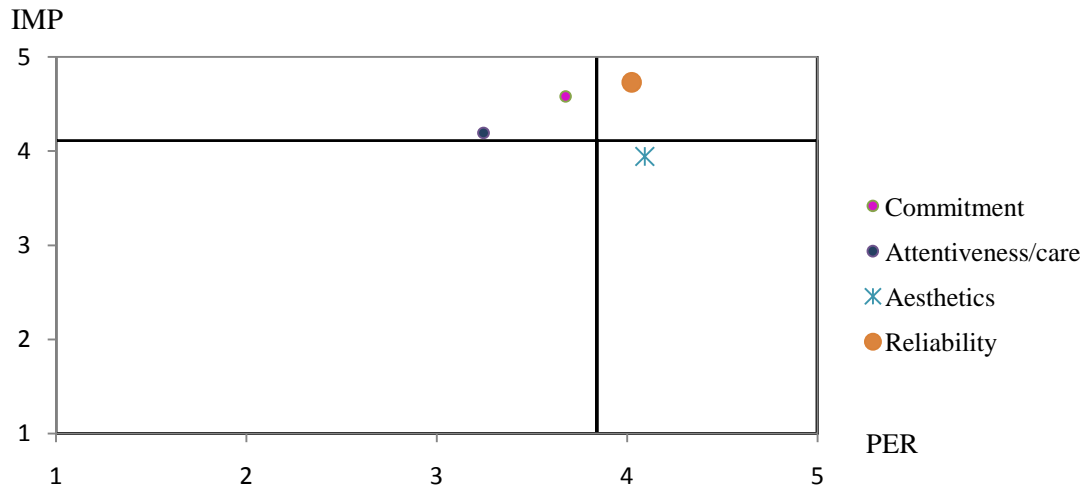
As expected, given the current market shares of each bank, CGD has the highest percentage when compared with the others banks, followed by Millennium BCP.

5.5.2.1.2 General evaluation of the Banking service

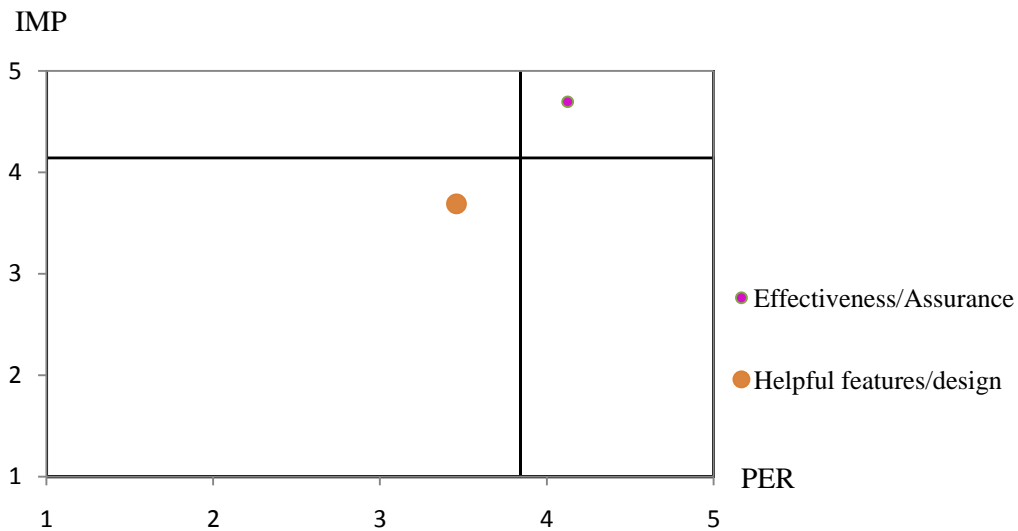
Dimension	Importance	Performance	I-P
D1 - Commitment	4,58	3,68	0,90
D2 - Attentiveness/care	4,19	3,20	0,99
D3 - Aesthetics	3,94	4,09	-0,15
D4 - Reliability	4,73	4,02	0,71
D5 - Effectiveness/Assurance	4,70	4,13	0,57
D6 - Helpful features/design	3,69	3,46	0,23

Table 5.12: Evaluation of the Banking service (Scale Dimensions)

- **Bank Branch**



- **Internet Banking**



Graphic 5.4: I-P Matrix – General evaluation of the Bank Branch and the Internet Banking

Relatively to the bank branch, *Reliability* is the only dimension that is presented in quadrant B (i.e., keep up the good work). The dimensions *Commitment* and *Attentiveness / Care* are located in Quadrant A (i.e., concentrate here) and *Aesthetics* dimension appears in quadrant C (i.e., low priority).

Finally, for the two dimensions that characterize the Internet service, the *Effectiveness / Assurance* dimension presents itself in the quadrant B and the *Helpful features / design* dimension falls in Quadrant C.

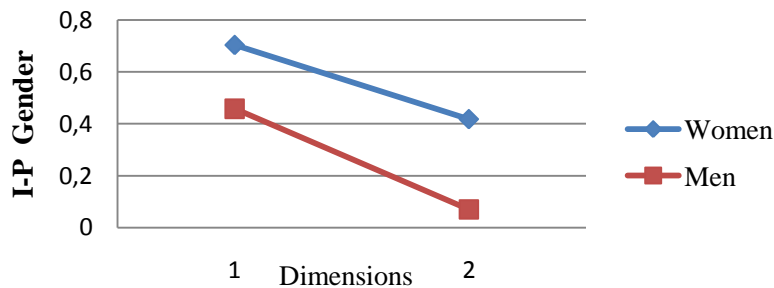
5.5.2.2 Section II - Procedure and testing the hypotheses

5.5.2.2.1 Analysis of the Hypotheses

H1_a: Gender: The fit between the importance given to a set of online attributes and this channel's perceived performance is different between genders, being higher for women;

Dimension		N	Importance Mean	Performance Mean	Quadrant	I-P
Effectiveness and Assurance	Female	101	4,7492	4,0363	A	,7129
	Male	124	4,6519	4,1989	B	,4530
	Total	225	4,6956	4,1259		,5696
Helpful features and design	Female	101	3,8036	3,3795	C	,7129
	Male	124	3,5949	3,5228	C	,4530
	Total	225	3,6890	3,4585		,5696

Table 5.13: Descriptive statistics

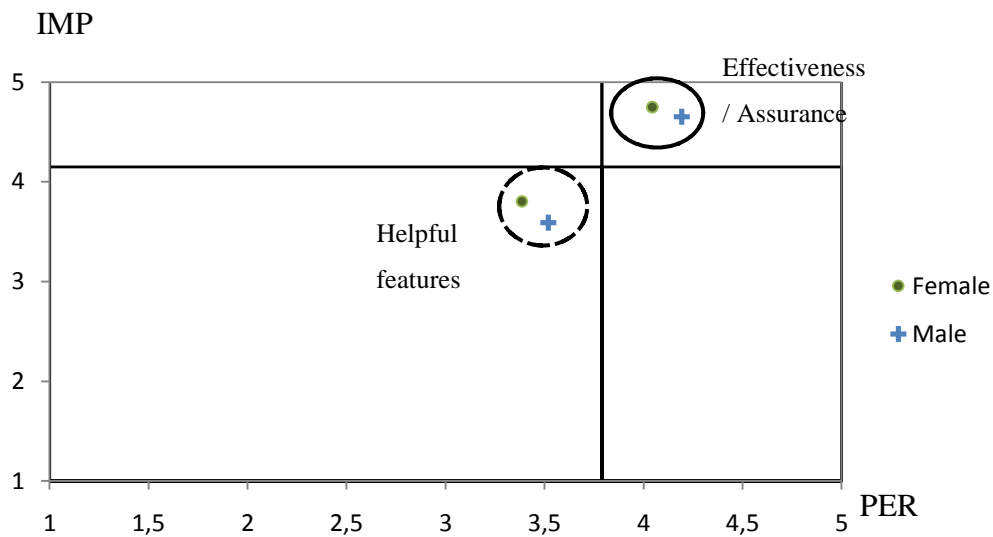


Graphic 5.5: I-P Line Chart (Gender)

Having regard to the table and the graph presented, it is possible to state that there are differences between the genders in the Internet service evaluations:

- Women perceive the performance of the Internet as being slightly lower compared to the ratings given by men;
- I-P is lower for men, meaning that there is little difference between the importance and performance scores for these consumers.

The importance-performance model corroborates these findings. The men's ratings of the performance are always superior in the both dimensions.



Graphic 5.6: I-P Matrix (Gender)

The first dimension fell in Quadrant B (i.e., keep up with the good work) and the second fell in Quadrant (i.e., low priority)

To verify the statistical validity of the above statements, the Mann-Whitney test was applied.

H_0 : Men and women have the same scores of reviews. ($\mu_i = \mu_j$)

H_1 : Men and women have different scores of reviews ($\mu_i \neq \mu_j$)

Test Statistics^a

	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Mann-Whitney U	4828,500	4576,500
Wilcoxon W	12578,500	12202,500
Z	-2,966	-3,396
Asymp. Sig. (2-	,003	,001

Table 5.14: Mann-Whitney test (gender)

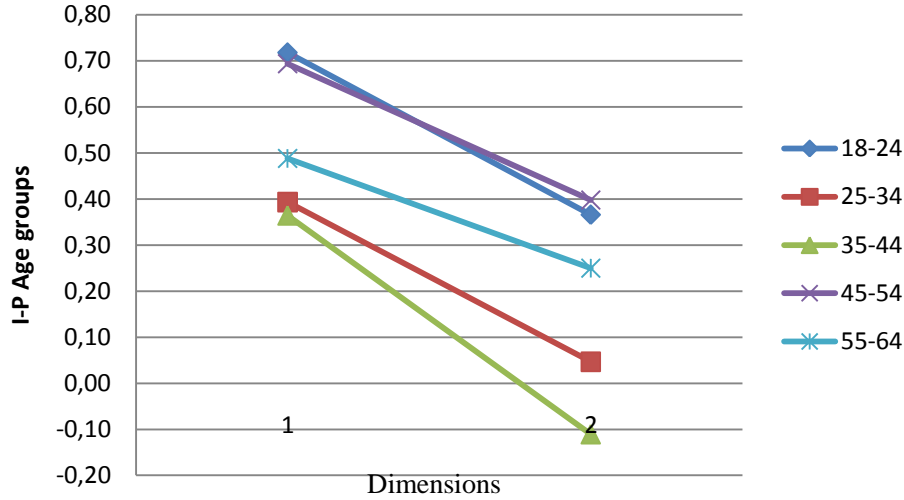
The test value for both dimensions belongs to the critical region ($[-1.96; 1.96]$ for a significance level of 0.05), rejecting the null hypothesis. It is concluded therefore, that there are differences between the importance and performance evaluations among men and women.

H1_a ✓

H1_b: Age: The fit between the importance given to a set of online attributes and this channel's perceived performance is different for the different age groups, especially lower for consumers aged 25 to 45 years;

Dimensions	N	Importance Mean	Performance Mean (Age)	Quadrant	I-P	Chi-Square	
Effectiveness and Assurance	18-24	71	4,59	3,87	B	0,72	9,556
	25-34	50	4,76	4,37	B	0,39	
	35-44	27	4,85	4,49	B	0,36	
	45-54	49	4,72	4,03	B	0,69	
	55-64	28	4,66	4,17	B	0,49	
	Total	225	4,70	4,13		0,57	
Helpful features and design	18-24	71	3,66	3,30	C	0,37	11,013
	25-34	50	3,63	3,59	C	0,05	
	35-44	27	3,68	3,79	C	-0,09	
	45-54	49	3,72	3,32	C	0,40	
	55-64	28	3,82	3,57	C	0,25	
	Total	225	3,69	3,46		0,23	

Table 5.15: Descriptive statistics (Age)



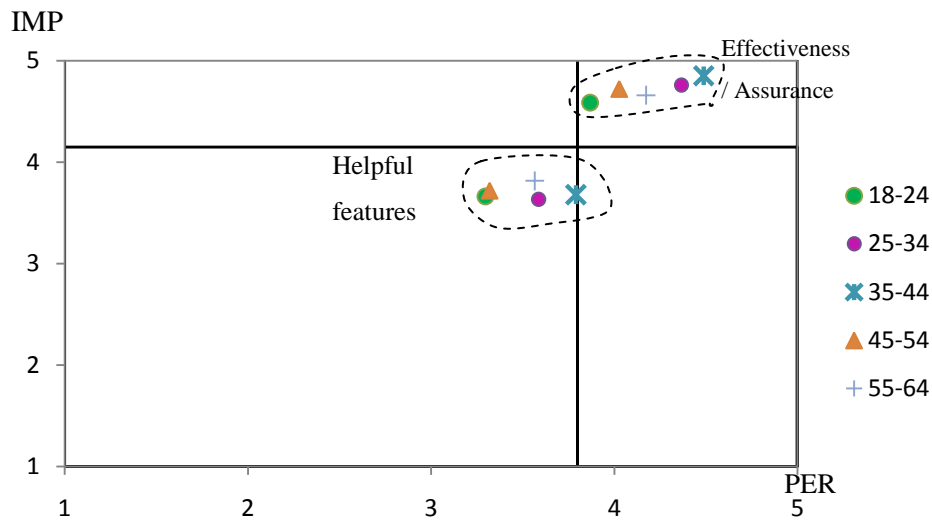
Graphic 5.7: I-P Line Chart (Age)

The table and the line chart above show the elements of findings with regard to the gap between the importance and performance evaluations of the internet service among the different age groups. The results showed that, in all the age groups, the importance mean was slightly different from the performance values.

For the first dimension of the Internet, *Effectiveness and Assurance*, the individuals aged 25 to 34 and 35 to 44 years old evaluated the performance mean significantly higher when compared with the others groups. It is also possible to verify that the I-P difference of these ages is relatively smaller, specifically of 0,39 and 0,36.

Regarding to the second dimension, *Helpful features and design*, the same ages (25-34 and 35-44) have also, a slightly inferior I-P than the other groups.

By examined the obtained data through an “Importance-performance” grid, the results showed that for the *Effectiveness and Assurance*, all the elements fell in the Quadrant B (i.e., good service quality), as the *Helpful features and design* dimension, the elements fell in the Quadrant C (i.e., low priority).



Graphic 5.8: I-P Matrix (Age)

To confirm the hypothesis, it was applied the Kruskal-Wallis test:

H_0 : The various age groups have the same scores in the service quality evaluations. ($\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$)

H_a : The various age groups assign different scores in the service quality evaluations. ($\mu_i \neq \mu_j$, with $i, j = 1, 2, 3, 4, 5$)

	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	9,556	11,013
df	4	4
Asymp. Sig.	,049	,026

Table 5.16: Kruskal-Wallis Test (Age)

The test statistic corresponds to 9.556 and 11.013 respectively. The critical region for a chi-square distribution with 4 (k-1) degrees of freedom and a significance level of 0.05 is $[9.48, +\infty[$. Thus H_0 is rejected, since the test value is in the critical region and it is confirmed that exist differences in the interval between the importance given to a set of online attributes and Internet perceived performance for the various age groups. The line chart analysis done before enabled to verify that these differences are more pronounced for the individual aged 25 to 44 years old, verifying $H1_b$.

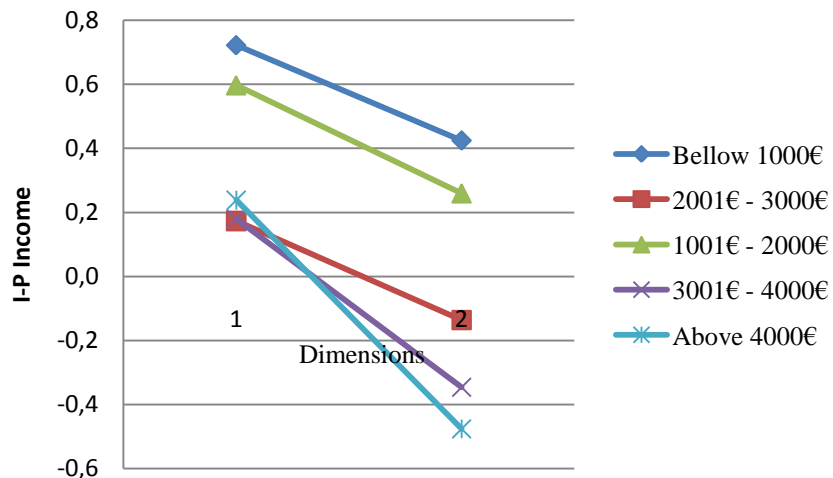
H1_b ✓

H1c: Income: The fit between the importance given to a set of online attributes and this channel's perceived performance is different for the various ranges of income, specifically lower for individuals who earn higher wages.

Dimension		N	Importance	Performance	Quadrant	I-P
Effectiveness and Assurance	Below 1000€	102	4,64	3,91	A	,72
	1001 - 2000€	77	4,7	4,10	A	,60
	2001 - 3000€	26	4,75	4,58	B	,17
	3001 - 4000€	13	4,92	4,74	B	,18
	Above 4000€	7	4,93	4,69	B	,24
	Total	225	4,70	4,13		,57

Dimension		N	Importance	Performance	Quadrant	I-P
Helpful features and design	Below 1000€	102	3,65	3,23	C	,42
	1001 - 2000€	77	3,63	3,37	C	,26
	2001 - 3000€	25	3,79	3,92	C	-,12
	3001 - 4000€	13	4,01	4,36	B	-,35
	Above 4000€	7	4,00	4,48	B	-,48
	Total	224	3,69	3,46		,23

Table 5.17: Descriptive statistics (Income)

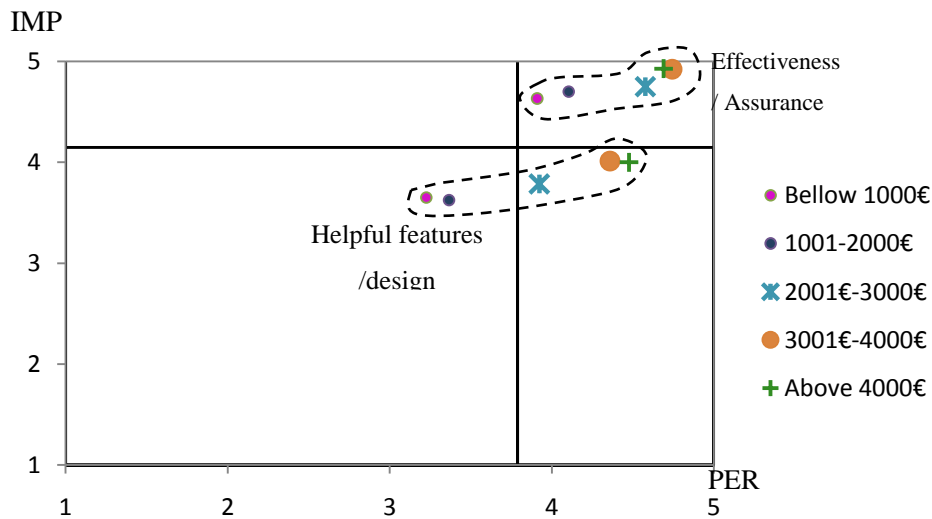


Graphic 5.9: I-P Line Chart (Income)

When analyzing the outputs above, it can be concluded that there are differences for the five ranges of income in the mean values of importance and performance of Internet service.

In both Internet dimensions, individuals who earn a higher salary realize a better performance than those earning less.

Looking at the I-P results, it appears that this difference will be less and less as income increases. Thus, the individuals whose income is below € 1000 have a difference of 0.72 and 0.42 (*Effectiveness and Assurance* and *Helpful features and design* dimensions, respectively), while those earning above € 4000 reveal a difference of 0.24 and -0.48, as such the quality for the second ones is perceived as being superior.



Graphic 5.10: I-P Matrix (Income)

The importance-performance grid shows for *Effectiveness and Assurance* that the elements fell in the Quadrant B (i.e., keep up the good work). For the second dimension, the elements are present in the quadrant A, by the scores of the individuals who receive lower income and in Quadrant C, by those with a higher wages. The perceived performance of the last individuals has, for both dimensions, superior scores.

Test Statistics^{a,b}

	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	24,537	24,686
df	4	4
Asymp. Sig.	,000	,000

Table 5.18: .Kruskal-Wallis test (Income)

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

$H_a: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5$

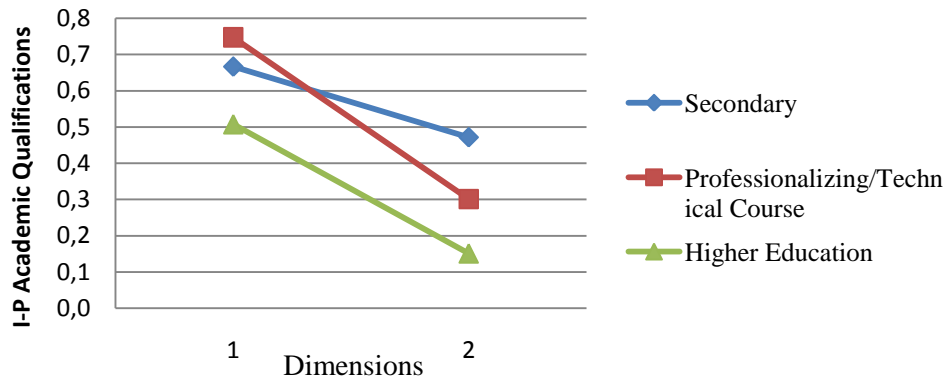
The values of the Kruskal-Wallis test confirm that there is a difference for the various ranges of income, in the fit between importance and performance evaluations given to a set of online attributes, represented by the two Internet dimensions (the test value 24,537 and 24,686 belongs to the critical region $[9,49, +\infty[$, respectively). Thus, together with the conclusions drawn from observations made above, the hypothesis H_{1c} is considered true.

H1c ✓

H1d: Educational level: The fit between the importance given to a set of online attributes and this channel's perceived performance varies according to the academic qualifications of the consumers , being lower for more educated customers;

Scale's Service Attributes		N	Importance Mean	Performance Mean	Quadrant	I-P Mean
Effectiveness and Assurance	Secondary	39	4,7650	4,0940	B	,6709
	Professionalizing/Technical	33	4,7525	4,0152	B	,7374
	Higher Education	153	4,6656	4,1580	B	,5076
	Total	225	4,6956	4,1259		,5696
Helpful features and design	Secondary	39	3,8376	3,3889	C	,4487
	Professionalizing/Technical	33	3,7576	3,4192	C	,3384
	Higher Education	152	3,6360	3,4847	C	,1568
	Total	224	3,6890	3,4585		,2344

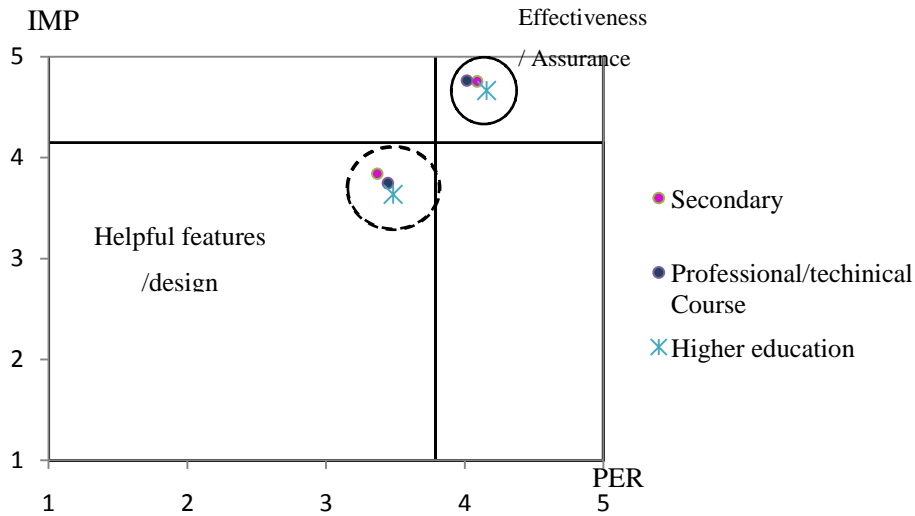
Table 5.19: Descriptive statistics (Academic Qualifications)



Graphic 5.11: I-P Line Chart (Academic Qualifications)

Given the table 5.23, it appears that there is a slight difference between the mean scores of importance and performance for both dimensions. Chart X shows that individuals with higher education have a lower I-P than the others. These differences among the various groups are greater in the *Helpful features and design* dimension. However, individuals perceive the performance of the *Effectiveness and Assurance* dimension as being superior.

The matrix below confirms that the first dimension of the Internet attributes has a superior perceived service quality, being located in quadrant B, while the second dimension is located in quadrant C, with a lower performance and lower importance. This dimension demonstrates to be of low priority to the various academic qualifications.



Graphic 5.12: I-P Matrix (Academic Qualifications)

Given the findings, it is necessary to verify its statistical validity.

H_0 : There are no differences in the evaluation ratings between more and less educated consumers; ($\mu_1=\mu_2=\mu_3$)

H_a : There are differences in the evaluation ratings between more and less educated consumers. ($\mu_1\neq\mu_2\neq\mu_3$)

Test Statistics^{a,b}

	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	3,040	6,405
df	2	2
Asymp. Sig.	,219	,041

Table 5.20: Kruskal-Wallis (Academic Qualifications)

According to the values the Kruskal-Wallis test for the size *Effectiveness and Assurance* dimension, there are no differences in the fit between the importance and perceived performance, since the test value (3,040) is in the region of acceptance($[0 ;5.99[$). In what concerns the second dimension, the null hypothesis is rejected, as the test value (6,405) belongs to the critical region ($] 5.99 ;+\infty[$).

Despite the conclusions reached above from the table X and chart observations, they are only true for the attributes belonging to the *Helpful features and design* dimension. As such, the hypothesis $H1_d$ is rejected or partly rejected.

H1_d X

H1e: Experience: The fit between the importance given to a set of online attributes and this channel's perceived performance varies according to the familiarity with the internet medium, being lower for consumers who use the Internet to perform a higher number of activities;

Taking into account the activities performed using this technology, the consumers' Internet experience will be classified as follows:

1	Web pages
2	E-mail account
3	Web pages and e-mail account
4	Web pages, e-mail account and to communication
5	Web pages, e-mail account and downloads
6	Web pages, e-mail account, to communication and downloads
7	Web pages, e-mail account, online shopping
8	Web pages, e-mail account, to communication and online shopping
9	Web pages, e-mail account, downloads and online shopping
10	Web pages, e-mail account, communication, downloads and online shopping

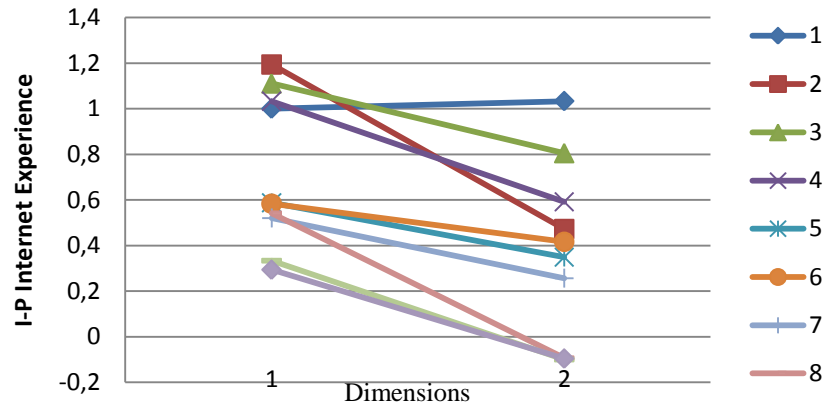
Online shopping is associated with an increased risk, knowledge and familiarity with this medium. Downloads are in second position, followed by the use of the Internet to communicate, to check the e-mail account and, at last, to visit Web pages.

Dimension		N	Importance Mean	Performance Mean	Quadrant	I-P Mean
Effectiveness and Assurance	1	5	4,17	3,17	A	1,00
	2	6	4,36	3,17	A	1,19
	3	12	4,65	3,54	A	1,11
	4	20	4,55	3,52	A	1,03
	5	21	4,63	4,05	B	0,59
	6	42	4,71	4,12	B	0,58
	7	24	4,78	4,26	B	0,52
	8	16	4,78	4,24	B	0,54
	9	20	4,78	4,45	B	0,33
	10	59	4,76	4,47	B	0,29
Total	225	4,70	4,13		0,57	

Dimension		N	Importance	Performance	Quadrant	I-P
Helpful features and design	1	5	3,70	2,67	C	1,03
	2	6	3,39	2,92	C	0,47
	3	12	3,85	3,04	C	0,81
	4	20	3,56	2,97	C	0,59
	5	21	3,52	3,17	C	0,35
	6	42	3,76	3,34	C	0,42
	7	24	3,70	3,44	C	0,26
	8	16	3,47	3,56	C	-0,09
	9	20	3,90	4,00	C	-0,10
	10	59	3,72	3,81	D	-0,08
Total	225	3,69	3,46		0,23	

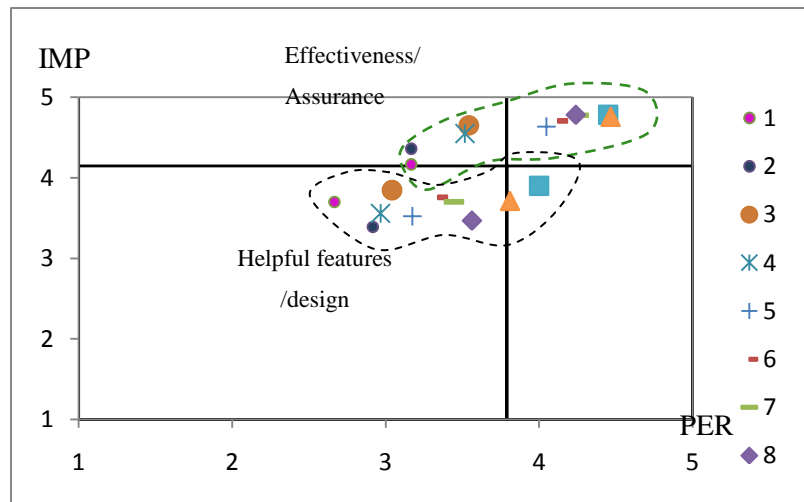
Table 5.21: Descriptive statistics (Internet Experience)

The results show differences between the values attributed to the importance and performance for each Internet dimension. These numbers are more extreme for individuals who use the Internet for fewer activities.



Graphic 5.13: I-P Line Chart (Internet Experience)

The graph 5.8 confirms this statement. With a large difference between individuals who only use the Internet to visit Web pages or a little more than that and those who use it for various purposes.



Graphic 5.14: I-P Matrix (Internet Experience)

The importance-performance grid shows that the perceived quality by the individuals who resort to various activities is higher. The results also demonstrate that the service attributes of the dimension *Effectiveness and Assurance* fell in the Quadrant B (i.e., keep up the good work with),

for individuals who make a more varied use of the Internet, and in the Quadrant A (i.e., concentrate here) for those who do a more restricted use. Relative to the *Helpful features and design* dimension, almost of the elements fell in Quadrant C (i.e., low priority).

Test Statistics^{a,b}

	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	33,470	28,632
df	9	9
Asymp.	,000	,001

Table 5.22: Kruskal-Wallis test (Internet Experience)

H_0 : There are no differences in the evaluation ratings between the individuals who use the Internet for few activities and those who make a more varied use; ($\mu_i = \mu_j$, with $i, j = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$)

H_a : There are differences in the evaluation ratings between the individuals who use the Internet for few activities and those who make a more varied use; ($\mu_i \neq \mu_j$, with $i, j = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$)

Regarding the Kruskal-Wallis test, which value, for both dimensions, belongs to the critical region, the null hypothesis is rejected, i.e., there are differences in the fit between importance and performance evaluations.

Jointly with the findings obtained by the previous analysis, it can be affirmed that the hypothesis $H1_e$ is true and, therefore, the Internet experience has a significant influence on the scores of Internet service quality evaluations.

H1_e ✓

H₂: There is a negative correlation between the performance evaluations of Internet banking and the importance attached to personal interaction.

Dimensions		N	Performance Mean	I-P Mean	Kruskal Wallis test	Kruskal Wallis test
Effectiveness/ assurance	Unimportant	8	4,5625	,2292	37,810	19,771
	2	19	4,4825	,3333		
	3	48	4,4132	,3681		
	4	83	4,0884	,5261		
	Very Important	67	3,8134	,8756		
Total		225	4,1259	,5696		
Helpful_featu res_design	Unimportant	8	4,1250	-,7500	17,233	18,347
	2	19	3,7281	,0789		
	4	83	3,3293	,3353		
	Very Important	67	3,3408	,4080		
	Total	225	3,4585	,2344		

Table 5.23: Descriptive statistics (Personal Interaction)

On the table above, it is possible to verify that as the importance levels of personal interaction raise the performance scores decrease.

Using the Spearman Rho correlation, the hypotheses of the association test are:

H_0 : There is no relationship between the performance evaluation of Internet banking and the importance given to the personal interaction, i.e., the intensity of association between the two variables is zero. ($\mu_i = \mu_j$, with $i, j = 1, 2, 3, 4, 5$)

H_a : There is a relationship between the performance evaluation of Internet banking and the importance given to the personal interaction. ($\mu_i \neq \mu_j$, with $i, j = 1, 2, 3, 4, 5$)

Correlations

			Importance of personal interaction	<u>Performance</u> Effectiveness Assurance
Spearman's rho	Importance of personal interaction	Correlation Coefficient	1,000	-,405**
		Sig. (2-tailed)	.	,000
		N	225	225
	<u>Performance</u> Effectiveness/ Assurance	Correlation Coefficient	-,405**	1,000
		Sig. (2-tailed)	,000	.
		N	225	225

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

Correlations

			Importance of personal interaction	<u>Performance</u> Helpful features/design
Spearman's rho	Importance of personal interaction	Correlation Coefficient	1,000	-,211**
		Sig. (2-tailed)	.	,001
		N	225	225
	<u>Performance</u> Helpful features/design	Correlation Coefficient	-,211**	1,000
		Sig. (2-tailed)	,001	.
		N	225	225

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

Table: 5.24: Spearman's rho (Personal Interaction)

The value of Spearman's Rho shows a moderate and negative correlation between the variables, *Effectiveness Assurance* and *Importance of personal interaction*. The null hypothesis is rejected for any type I error, being this result statistically significant ($p < 0.01$).

Table 5.30 shows a value of the Spearman's Rho slightly inferior, which means that there is a weaker correlation than the former but equally negative, among the variables *Helpful features and design* and *Importance of personal interaction*.

The significance of the negative sign is translated as follows: increases in the importance given to personal interaction are associated in average with decreases in the perceived performance of Internet services.

It can also be established that 16.4% [$(-0.405) \times 100$] of the performance variability of the *Effectiveness/Assurance* dimension is explained by the importance given to personal interaction. For the other dimension, this value is slightly inferior, respectively 4.5%.

The Kruskal-Wallis test supplements and confirms the anterior analysis (all the values are situated in the critical region] $9.49 ; +\infty[$). Hence, the importance attached to personal interactions influences negatively the performance evaluations and I-P scores. H2 hypothesis is considered true.

H₂ ✓

H₃: Consumers, who use the branch to carry out more complex activities, have a worst performance evaluation of the Internet banking channel, especially in its capacity of information and clarification.

First it is going to verify if there are differences in the performance evaluations of the customers given the channel used.

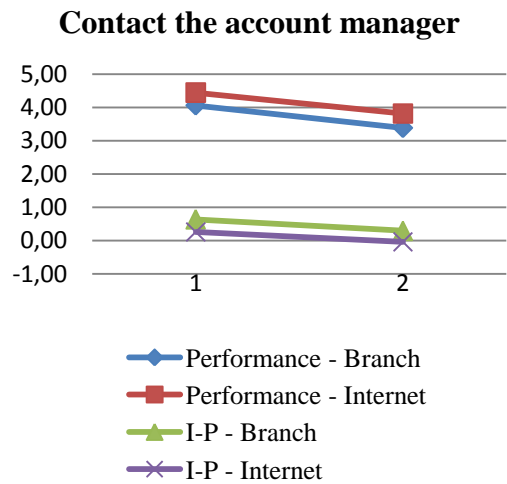
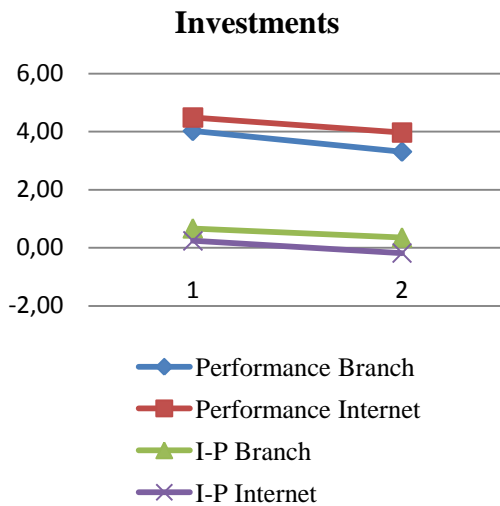
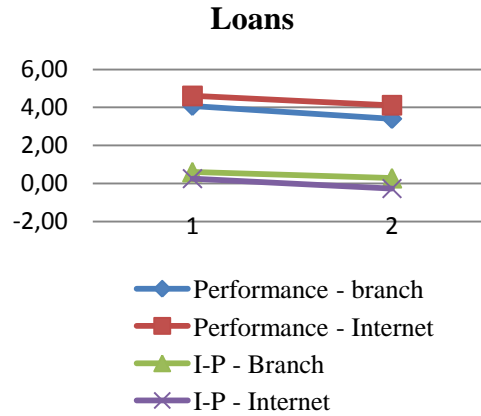
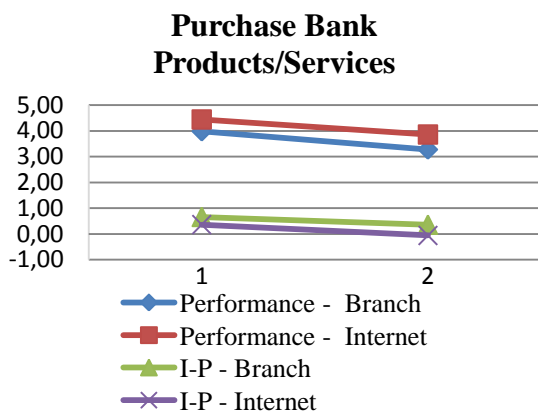
		Purchase Bank Products		Loans		Investments		Contact the account manager	
Variables		N	Mean	N	Mean	N	Mean	N	Mean
<u>Performance</u> Effectiveness/Assurance	Balcão	156	3,99	206	4,08	174	4,02	185	4,06
	Internet	69	4,44	19	4,61	51	4,48	40	4,44
	Total	225	4,13	225	4,13	225	4,13	225	4,13
<u>Performance</u> Helpful features/design	Balcão	156	3,28	206	3,40	174	3,31	185	3,38
	Internet	69	3,86	19	4,11	51	3,97	40	3,81
	Total	225	3,46	225	3,46	225	3,46	225	3,46
(I-P) Effectiveness/Assurance	Balcão	156	0,66	206	0,60	174	0,67	185	0,64
	Internet	69	0,36	19	0,25	51	0,24	40	0,26
	Total	225	0,57	225	0,57	225	0,57	225	0,57
(I-P) Helpful features/design	Balcão	156	0,36	205	0,28	174	0,35	185	0,29
	Internet	68	-0,06	19	-0,26	50	-0,18	39	-0,04
	Total	224	0,23	224	0,23	224	0,23	224	0,23

Table 5.25: Descriptive statistics (Type of financial operation)

Observing the table above, it is possible to withdraw the following conclusions:

- Individuals who use the Internet to carry out the various banking activities assess the performance as being superior when compared with the individuals who resort to the bank branch.
- I-P values are lower for individuals who prefer the Internet, rather than those who do not.

The charts below confirm these statements.



Graphic 5.15: I-P Line Chart (Purchase Bank Products, Loans, Investments, Account manager)

Using the Kruskal-Wallis test, it is possible to confirm that there are differences between the mean values assigned by the consumers who use the bank branch and those who prefer the Internet.

$$H_0: \mu_1 = \mu_2$$

$H_a: \mu_1 \neq \mu_2$, ($_1$ = Evaluations of the consumers who prefer the Bank Branch; $_2$ = Evaluations of the consumers who prefer the Internet banking);

These conclusions are verified for all the variables, i.e., *Purchase Bank Products/Services*, *Loans*, *Investments* and *Contact the Account Manager*. Since the test statistic is in the critical

region ($[3, 84; +\infty[$ with a significance level of 0.05) for all of them. Hence, the null hypothesis is rejected.

In the second and final stage, to prove if the hypothesis H3 is true, it is necessary to verify if the performance values assigned by the individuals who prefer using the traditional channel are much lower than those obtained by the consumers who use the Internet, for the attributes related with the capacity of information and clarification of the Internet channel.

			Purchase of Bank Products/Service	Loans	Investments	Contact the Account Manager
Performance			Mean	Mean	Mean	Mean
Effectiveness Assurance Dimension	Accessibility of the Branch language and the Internet information content of the Website	B-I	3,95 4,43 -0,49*	4,06 4,53 -0,47**	3,98 4,51 -0,53*	4,01 4,50 -0,49*
	Organized and complete information about products / services on the Website	Branch Internet B-I	3,71 4,16 -0,45*	3,78 4,58 -0,80*	3,73 4,25 -0,53*	3,78 4,18 -0,40*
	Options (Online chat, Call back button) to contact with a bank representative	Branch Internet B-I	3,17 3,83 -0,65*	3,32 4,00 -0,68*	3,19 4,00 -0,81*	3,30 3,70 -0,40**
	Interactive features (calculator and simulator)	Branch Internet B-I	3,35 4,00 -0,65*	3,49 4,16 -0,67**	3,37 4,14 -0,76*	3,45 4,00 -0,55*
Helpful features and design Dimension	Presence on Facebook / Twitter	Branch Internet B-I	2,41 2,83 -0,42**	2,48 3,21 -0,73*	2,43 2,92 -0,50**	2,52 2,60 -0,08**
	Comprehensive compilation of FAQs	Branch Internet B-I	3,23 3,90 -0,67*	3,36 4,26 -0,90*	3,29 3,94 -0,65**	3,36 3,80 -0,44*
	Effectiveness Assurance	B-I	-0,45	-0,52	-0,46	-0,38
Dimensions	Helpful features/design	B-I	-0,58	-0,72	-0,66	-0,43

*B-I Attribute \geq B-I Dimension; ** B-I Attribute $<$ B-I Dimension

Table 5.26: B-I (Type of financial operation)

The table shows that the difference between the values of the performance of the attributes in study among individuals who prefer the branch and those who use the Internet is significantly higher when compared with the B-I value of each dimension, i.e., with the values of other attributes of the Internet service.

For each clarification and information attribute, it was also calculated the value of the Kruskal-Wallis test, verifying that exists, in all of them, differences between the scores given by the two groups (Bank Branch and Internet), except for the bank's presence in social networks.

Test Statistics^{a,b}

	Organized and complete information about products / services on the Website	Options (Online chat, Call back button) to contact with a bank representative	Accessibility of the language and the information content of the Website	Interactive features (calculator and simulator)	Presence on Facebook / Twitter	Comprehensive compilation of FAQs
Chi-Square	9,084	7,613	11,931	16,647	,020	11,037
df	1	1	1	1	1	1
Asymp. Sig.	,003	,006	,001	,000	,888	,001

Table 5.27 – Kruskal-Wallis Test (Type of financial operation, 2^a phase)

The general evaluation of the attribute related to the bank's presence on social networks revealed that consumers still attach little importance to it, contrary to what it would be expected. Taking into account all the previous result, the hypothesis H3 is considered true.

H₃ ✓

6. Conclusion, Limitations and Lines for Future Research

6.1 Conclusion

Although Internet banking is the channel that has experienced the highest growth in recent years, being now, the third most used channel by the Portuguese consumers, it will not replace the traditional channel. These two channels will operate in a complementary way, because each channel presents some differential strength, but, at the same time, presents limitations and complications. The traditional channel will emphasize its sales and advisory role in addition to the established transactions services.

It becomes preponderant, mainly from a strategic standpoint, conclude on the importance assigned to the attributes of each channel and on the perceived quality that may influence the use of these same channels and that is related with the customer satisfaction.

The main conclusions of this study are related to the questions developed in the first chapter:

1. Do the factors related to the channels usage have a significantly influence on the service quality evaluation of them?

Definitely the answer to this question is yes. The factors that influence the use of banking channels, also, influence the general evaluation of service quality. All the factors have been confirmed with the exception of academic qualifications. This conclusion is important as it allows creating segments of customers and thus it enables to develop strategies, products and services targeted specifically for these groups. Thus and to conclude, the factors influence the evaluation of the quality which, in turn, will be reflected in consumer behavior and interaction with the bank.

2. If yes, how this evaluation differs?

The male consumer, aged between 25 and 45 years old, with high yields and with a great Internet familiarity, perceived the Internet service quality more positively than the remaining individuals. It can be affirmed that these individuals are the most satisfied with the performance of the Internet banking channel.

It also becomes visible that consumers with the highest ratings of the performance of Internet service are those who give less emphasis to the need for personal interaction. There is, therefore, a contrary association between perceived performance and the need for personal interaction.

Finally, it is evident that the type of financial activity also plays an impact on service quality assessments. So the individuals who prefer the branch to perform more complex activities, such as the purchase of banking products/services, loans, investments and to contact the account manager, perceive service quality as being lower than those who chose to use the Internet.

Understanding these differences in perceived quality taking into account the various characteristics of the individuals allows to understand better the use of banking channels, as well as taking measures to influence the same use, in benefit to the bank

3. What are the areas of the service provided by the distribution channels on which banks should concentrate their attention?

Relatively to the traditional channel, banks must invest in the areas related with attentiveness and care and those expressing a bank commitment to the customer.

In the first area, *Attentiveness and care*, banks should seek to understand and meet the customer's needs, salute him in a friendly and kind way and also avoid a prolonged waiting time to serve the client. This way the bank will show concern for the well being of the client.

In the second area, *Commitment*, the branch employees should demonstrate willingness and readiness to help the customer, as well as provide a careful individual attention, so that together with the customer the best solution can be found. The customer will feel that the bank is willing to commit itself and create a bond of empathy with the client, becoming an ally.

These characteristics are essential for the advisor role that branches wish to play in the future.

For the Internet service, it verifies that many consumers that prefer using the branch and who place great importance on personal interaction have a poor classification of the performance of the Internet service characteristics related with clarification and information. Banks should pay attention to accessibility of the language, the information about the products, the various forms of contact with a bank representative, the interactive features and FAQ's. All of them, features that make the customer feel more supported and confident. Hence, banks need to focus their attention on these attributes and transform these weaknesses into future opportunities.

In a market where the services offered are identical, it is necessary to be able to do better than the other competitors. Quality represents the means and end to achieve this goal.

Finally, with the construction of the scale to assess the service quality in the two channels it can be concluded that readiness to respond to customers' requests and willingness to help are the attributes that consumers place more importance on a visit to the bank. With regard to Internet banking customers value above all the security that the bank's site conveys, the accessibility of the language, the information about the products / services and the rapid confirmation of the banking operations performed.

6.2 Limitations and Lines for Future Research

Despite the possible contribution that this research may have on the study of the distribution channels usage, should be taken into consideration that this was the first study involving both the factors influencing the use and the assessments of the service quality, and, therefore, it is important that further investigation be made to consolidate some concepts and to allow confirming or rejecting the conclusions drawn above.

The sample size for both the study of the hypotheses, but mainly to the scale development is the major limitation. Studies involving a larger number of individuals will be needed in order to generalize with confidence the results to the entire population.

Future studies should identify and analyze other variables that might affect the assessment of quality, such as price, the bank's reputation and the impact of brand image. Satisfaction as a measure should also be incorporated in next research, due to its causal relationship with the perceived service quality and to its importance as an antecedent of consumer loyalty.

This study has an emphasis on the perceived service quality, number one source of competitive advantage for the banks, drawing conclusions about consumer behavior and on service areas that need particular attention from the bank

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8. Annexes

8.1 General evaluation of the traditional channel Service

	Importance	Performance	I-P
Bank Branch	Mean	Mean	Mean
1. Readiness to respond to customers'	4,72	3,68	1,04
2 Willingness of the employees to help	4,68	3,59	1,09
3. Consistently courteous	4,42	3,80	0,62
4. Dependability in handling customers'	4,75	3,86	0,89
5. Individual attention at the branch	4,40	3,43	0,97
6. Confidence resulting from the employees'	4,56	4,04	0,52
D1 - Commitment	4,58	3,68	0,90
7. Recognizing the regular customer	3,68	2,77	0,66
8. Understanding of customer needs	4,36	3,60	0,76
9. Convenience of operating hours	4,24	3,01	1,23
10. Waiting time to be served	4,59	3,44	1,15
D2 - Attentiveness/care	4,19	3,20	0,99
11. Modern, clean and well organized	3,88	4,21	-0,33
12. Employees dressed in a caring and	3,41	4,26	-0,85
13. Confidentiality and privacy of bank	4,57	3,79	0,78
14. Accessibility of branch (parking spaces,	4,01	3,71	0,30
D3 - Aesthetics	3,9444	4,09	-0,15
15. Service as promised	4,80	4,15	0,65
16. Service at the promised time	4,75	4,03	0,72
17. Knowledge to answer customers'	4,73	3,92	0,81
D4 - Reliability	4,7304	4,0237	0,71

{ **Importance Mean – 4,15** (Y-axis value)
 { **Performance Mean – 3,79** (X-axis value)

8.2 General evaluation of the Internet channel Service

	Importance	Performance	I-P
Internet Banking	Mean	Mean	Mean
18. Confidence given by the security of	4,89	4,15	0,74
19. Accessibility of the language and the	4,50	4,10	0,40
20. Organized and complete information	4,54	3,85	0,69
21. Celerity of the confirmation provided by	4,68	4,32	0,36
22. Accurate and precise information at the	4,78	4,23	0,55
23. Bank's website performs the task at first	4,79	4,12	0,67
D5 - Effectiveness/Assurance	4,70	4,13	0,57
24. Options (Online chat, Call back button)	3,83	3,37	0,46
25. Interactive features (calculator and	4,03	3,55	0,48
26. Presence on Facebook / Twitter	2,67	2,54	0,13
27. Comprehensive compilation of FAQs	3,77	3,44	0,33
28. Attractiveness of the design and the	3,42	3,81	-0,39
29. Easy to navigate and use the Website	4,42	4,04	0,37
D6 - Helpful features/design	3,69	3,46	0,23

{ **Importance Mean – 4,38** (Y-axis value)
 { **Performance Mean – 3,70** (X-axis value)

8.3 Inquiry

Parte I - Importância

Seguidamente são descritas uma série de situações referentes ao seu banco principal. Gostaria que indicasse o grau de importância que atribui a cada uma delas, utilizando a escala de 1 a 5, em que 1 significa “Nada importante” (NI) e 5 significa “Muito importante” (MI).

	NI	2	3	4	MI
1. O facto de os empregados estarem sempre disponíveis para atender e esclarecer as minhas dúvidas é para mim:					
2. Ter empregados que mostram sempre boa vontade para me ajudar, estando interessados no meu bem-estar é para mim:					
3. O facto de, na agência, os empregados serem sempre atenciosos e amáveis é para mim:					
4. O facto de poder confiar inteiramente que na agência tratam dos meus problemas é para mim:					
5. O facto de, na agência existir maior contacto humano e de receber uma atenção individual, havendo uma troca					
6. O facto de, na agência, o comportamento dos empregados inspirar confiança é para mim:					
7. O facto de, na agência ser reconhecido como cliente do banco e ser saudado(a) de forma personalizada é para mim:					
8. O facto de, na agência, os empregados compreenderem e conhecerem as minhas necessidades é para mim:					
9. A conveniência do horário de funcionamento da agência é para mim:					
10. O facto de, na agência, o tempo de espera para ser atendido ser reduzido é para mim:					
11. O facto de as instalações do banco serem modernas, limpas e bem organizadas é para mim:					
12. O facto de os empregados estarem vestidos de forma cuidada e profissional é para mim:					
13. O facto de as instalações do banco favorecerem a confidencialidade e a privacidade é para mim:					
14. A acessibilidade (estacionamento, transportes públicos) da agência e uma fachada exterior bem visível é para mim:					
15. O facto de, na agência, os empregados executarem o serviço tal como foi acordado é para mim:					
16. O facto de, na agência, os empregados executarem o serviço no prazo prometido é para mim:					
17. O facto de, na agência, os empregados terem o conhecimento necessário para responder às minhas					

18. O facto de considerar o Website do banco de confiança quanto à confidencialidade da minha informação pessoal e					
19. O facto de a linguagem e o conteúdo da informação do Website serem acessíveis é para mim:					
20. O facto de, no website do banco, a informação sobre os produtos e serviços ser completa e bem organizada é para					
21. O facto de no Website me ser apresentada rapidamente a confirmação da operação bancária que realizei é para mim:					
22. O facto de a informação no Website do banco ser exacta e precisa (ex: registos precisos das minhas transacções) é para					
23. O facto de o serviço de e-banking ser eficiente e sem erros, realizando as operações de forma correcta “à primeira”, é					
24. O facto de o Website do banco me proporcionar várias opções (Online Chat, Call Back Button) para entrar em					
25. O facto de o Website do banco possuir características interactivas para um maior esclarecimento, tais como					
26. A presença do meu banco no Facebook/Twitter, onde posso obter e trocar informação e opiniões sobre produtos e					
27. Uma compreensível e esclarecedora compilação de FAQs que me pode ajudar nos meus problemas comuns é para					
28. O facto de a aparência e o design do Website do banco serem atractivos é para mim:					
29. A fácil navegação e uso do Website do banco são para mim:					

Parte II - Performance

Seguidamente são descritas uma série de afirmações referentes ao seu banco principal. Gostaria que indicasse em que medida concorda ou discorda delas, utilizando a seguinte escala de 1 a 5, em que 1 significa “Discordo Totalmente” (DT) e 5 significa “Concordo Totalmente” (CT).

	DT	2	3	4	CT
1. O serviço através do Website é eficiente, sem erros, sendo realizado de forma correcta logo “à primeira”					
2. No Website do banco é-me apresentada rapidamente a confirmação da operação bancária que realizei (feedback					
3. Na agência, os empregados têm o conhecimento necessário para responder às minhas questões, ajudando-me nas					
4. Na agência, os empregados executam o serviço tal como foi acordado					
5. Na agência, os empregados são sempre atenciosos e amáveis					

6. Na agência, o comportamento dos empregados do banco inspira confiança					
7. Na agência, os empregados compreendem e conhecem as minhas necessidades					
8. O horário de funcionamento da agência é conveniente					
9. Na agência, os empregados estão vestidos de forma cuidada e profissional					
10. As instalações do banco favorecem a confidencialidade e privacidade					
11. As instalações do banco são modernas, limpas e bem organizadas					
12. Na agência, os empregados executam o serviço no prazo prometido					
13. O Website do banco inspira-me confiança quanto à confidencialidade da minha informação pessoal e na					
14. A linguagem e o conteúdo da informação do Website são acessíveis					
15. No Website do banco a informação sobre os produtos e serviços é muito completa e bem organizada					
16. A informação fornecida pelo Website do banco é exacta e precisa (ex: registos precisos das minhas transacções)					
17. A agência é acessível (estacionamento, transportes públicos) e a fachada exterior está bem visível					
18. Na agência, os empregados estão sempre disponíveis para atender e esclarecer as minhas dúvidas					
19. Na agência, os empregados mostram sempre boa vontade para me ajudar, estando interessados no meu bem-estar					
20. Confio inteiramente que na agência tratam dos meus problemas bancários					
21. Na agência, é-me dada atenção individual, havendo uma troca eficiente de informação e de conselhos específicos					
22. O Website do banco é de fácil navegação e uso					
23. O Website do banco proporciona-me várias opções (Online Chat, Call Back Button) para entrar em contacto com um					
24. O Website do banco possui características interactivas (simuladores, calculadoras) que são úteis e esclarecedoras					
25. A presença do banco nas redes sociais(Facebook/Twitter) permite maior proximidade com o meu banco, sendo útil					
26. O Website do banco contém uma compilação de FAQs compreensível e que me ajuda/guia nos meus problemas					
27. A aparência e o design do Website do banco são atractivos					
28. O tempo de espera para ser atendido na agência é muito aceitável					
29. Na agência, sou reconhecido(a) como cliente do banco e sou saudado(a) de forma personalizada					

PARTE III - Banco principal, uso da Internet e comportamento do consumidor

1. Qual é o seu Banco principal?

Ou seja, aquele que utiliza mais vezes e com que faz o maior número de operações.

Banco Popular		CGD	
Banif		Finibanco	
Barclays		Millennium	
BBVA		Montepio	
BES		Santander	
BPI		Outro	

2. Qual é para si a importância de poder tratar dos seus assuntos bancários cara-a-cara com um empregado num dos balcões do seu banco?

Nada Importante	2	3	4	Muito Importante
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3. Assinale as frases que descrevem a sua experiência com a Internet

Recorro à Internet para:

Visitar páginas Web	
Fazer download de conteúdos	
Comunicar através da plataforma Web (Facebook, Twitter, Msn)	
Aceder à minha conta de e-mail	
Fazer compras em lojas online	

4. Para cada serviço bancário assinale o tipo de atendimento que utiliza ou utilizaria (no caso de nunca ter recorrido ao serviço em questão)

	Balcão	Internet
Consultar saldos e movimentos		
Consulta de informações sobre contas bancárias, produtos/serviços		
Transferências		
Pagamentos de serviços		
Compra de produtos (ex. Seguros, Fundos de Investimento, Depósitos a Prazo)		
Empréstimos		
Investimentos		
Contactar o gestor de conta		

Parte IV - Dados sócio-demográficos

Antes de finalizar a sua participação gostaria de ter alguma informação sobre a sua caracterização sócio-demográfica . Depois de tratada estatisticamente, servirá, exclusivamente, para caracterizar o conjunto de participantes no presente estudo.

1. Sexo

- ✓ Feminino
- ✓ Masculino

2. Idade

- ✓ 18 -24
- ✓ 25-34
- ✓ 35-44
- ✓ 45-54
- ✓ 55-64
- ✓ ≥ 65

3. Rendimento Mensal

- ✓ Até 1000 euros
- ✓ Entre 1001 e 2000 euros
- ✓ Entre 2001 e 3000 euros
- ✓ Entre 3001e 4000 euros
- ✓ Mais de 4000 euros

4. Habilitações literárias

- ✓ Básico
- ✓ Secundário
- ✓ Curso Médio/Profissional
- ✓ Superior

8.4 H2:Kruskal-Wallis Test

Test Statistics^{a,b}

	<u>Performance</u> Effectiveness/Assurance	<u>Performance</u> Helpful features/design	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	37,810	17,233	19,771	18,347
df	4	4	4	4
Asymp. Sig.	,000	,002	,001	,001

8.5 H3: Kruskal-Wallis Test

Test Statistics^{a,b} - Purchase of Bank Products/Services

	<u>Performance</u> Effectiveness/Assurance	<u>Performance</u> Helpful features/design	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	29,024	35,071	8,460	10,625
df	1	1	1	1
Asymp. Sig.	,000	,000	,004	,001

Test Statistics^{a,b} - Loans

	<u>Performance</u> Effectiveness/Assurance	<u>Performance</u> Helpful features/design	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	15,624	17,210	4,567	5,515
df	1	1	1	1
Asymp. Sig.	,000	,000	,033	,019

Test Statistics^{a,b} – **Investments**

	<u>Performance</u> Effectiveness/Assurance	<u>Performance</u> Helpful features/design	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	24,566	35,367	17,920	16,122
df	1	1	1	1
Asymp. Sig.	,000	,000	,000	,000

Test Statistics^{a,b} - **Contact the account manager**

	<u>Performance</u> Effectiveness/Assurance	<u>Performance</u> Helpful features/design	(I-P) Effectiveness/Assurance	(I-P) Helpful features/design
Chi-Square	13,817	13,321	11,655	4,893
df	1	1	1	1
Asymp. Sig.	,000	,000	,001	,027