
UNDERSTANDING CUSTOMER LOYALTY AND SATISFACTION IN
THE PORTUGUESE TELECOMMUNICATIONS SECTOR

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Abstract

This study's primary goal is to examine the elements that affect customer loyalty and satisfaction with Portuguese telecommunications. Indeed, customer loyalty and satisfaction are crucial factors in guaranteeing the success and expansion of the services sector. Furthermore, it aims to include customers' privacy perceptions in a thorough model.

A structured questionnaire was adapted from previous studies in the field, collecting a total of 357 valid responses. The suggested hypotheses were tested using multiple statistical techniques to assess the reliability and validity of the gathered data, culminating with path analysis through Structural Equation Modelling.

The research results demonstrate that consumer loyalty is highly impacted by satisfaction. On the other hand, service quality significantly influences customer satisfaction, whereas trust and perceived value have a positive yet insignificant impact on this construct. Additionally, perceptions of privacy risk were found to affect customer trust positively and significantly.

Considering that the data used for this analysis were collected exclusively in the Portuguese market, inferring the same findings in different countries should be made prudently. As this study only comprised one of the perceived value dimensions, the results associated with this construct should also have that in mind.

Keywords

Customer Loyalty; Customer Satisfaction; Service Quality; Trust; Perceived Value; Privacy Risk; Telecommunications.

Resumo

O principal objetivo deste estudo é examinar os elementos que afetam a fidelidade dos clientes e a satisfação com as telecomunicações portuguesas. De facto, a fidelidade e a satisfação do cliente são fatores cruciais para garantir o sucesso e a expansão do setor dos serviços. Além disso, pretende incluir as perceções de privacidade dos clientes num modelo abrangente.

Um questionário estruturado foi desenvolvido e adaptado através de estudos anteriores no setor, recolhendo um total de 357 respostas válidas. As hipóteses sugeridas foram testadas utilizando múltiplas técnicas estatísticas para avaliar a fiabilidade e validade dos dados recolhidos, culminando com a análise através de um Modelo de Equações Estruturais.

Os resultados da investigação demonstram que a lealdade do consumidor é altamente impactada pela satisfação. Por outro lado, a qualidade do serviço influencia significativamente a satisfação do cliente, enquanto a confiança e o valor percebido têm um impacto positivo, mas insignificante, neste construto. Adicionalmente, verificou-se que a perceção do risco de privacidade afeta a confiança dos clientes de forma positiva e significativa.

Considerando que os dados utilizados para esta análise foram recolhidos exclusivamente no mercado português, inferir as mesmas conclusões em diferentes países deve ser feito com ponderação. Uma vez que este estudo incluiu apenas uma das dimensões de valor percebido, os resultados associados a este construto devem também ter esse ponto em consideração.

Palavras-chave

Lealdade do Consumidor; Satisfação do Consumidor; Qualidade do Serviço; Confiança; Valor Percebido; Risco de Privacidade; Telecomunicações.

INDEX OF CONTENTS

1. INTRODUCTION	1
2. LITERATURE REVIEW	4
2.1. Customer Satisfaction and Customer Loyalty.....	4
2.2. Trust and Customer Satisfaction.....	5
2.3. Service Quality, Customer Satisfaction and Trust.....	6
2.4. Perceived Value, Customer Satisfaction and Trust.....	8
2.5. Privacy Risk and Trust.....	10
3. METHODOLOGY	11
3.1. Conceptual model and research objectives	11
3.2. Survey and measurements	12
3.3. Data collection and sample description	14
3.4. Reliability and validity	16
3.4.1. Exploratory Factor Analysis (EFA).....	16
3.4.2. Confirmatory Factor Analysis (CFA)	17
4. RESULTS	21
4.1. Results of the hypotheses test	21
4.2. Customer Satisfaction and Customer Loyalty.....	22
4.3. Trust and Customer Satisfaction.....	23
4.4. Service Quality, Customer Satisfaction and Trust.....	23
4.5. Perceived Value, Customer Satisfaction and Trust.....	23
4.6. Data Privacy and Trust.....	24
5. CONCLUSION	25
5.1. General conclusions	25
5.2. Managerial implications	26
5.3. Limitations and further research.....	26
REFERENCES	27
Annex 1.....	40
Annex 2.....	43

INDEX OF FIGURES

Figure 1. Evolution of market shares and Herfindahl-Hirschman index 2
Figure 2. Proposed Conceptual Model 12

INDEX OF TABLES

Table 1. Constructs and Measurement Items	13
Table 2. Demographic Characteristics	14
Table 3. KMO and Bartlett's Test for Sphericity	17
Table 4. Cronbach's alpha and convergent validity	18
Table 5. Discriminant Validity.....	19
Table 6. Measurement Model.....	20
Table 7. Structural Model	21
Table 8. Results of hypothesis tests	22

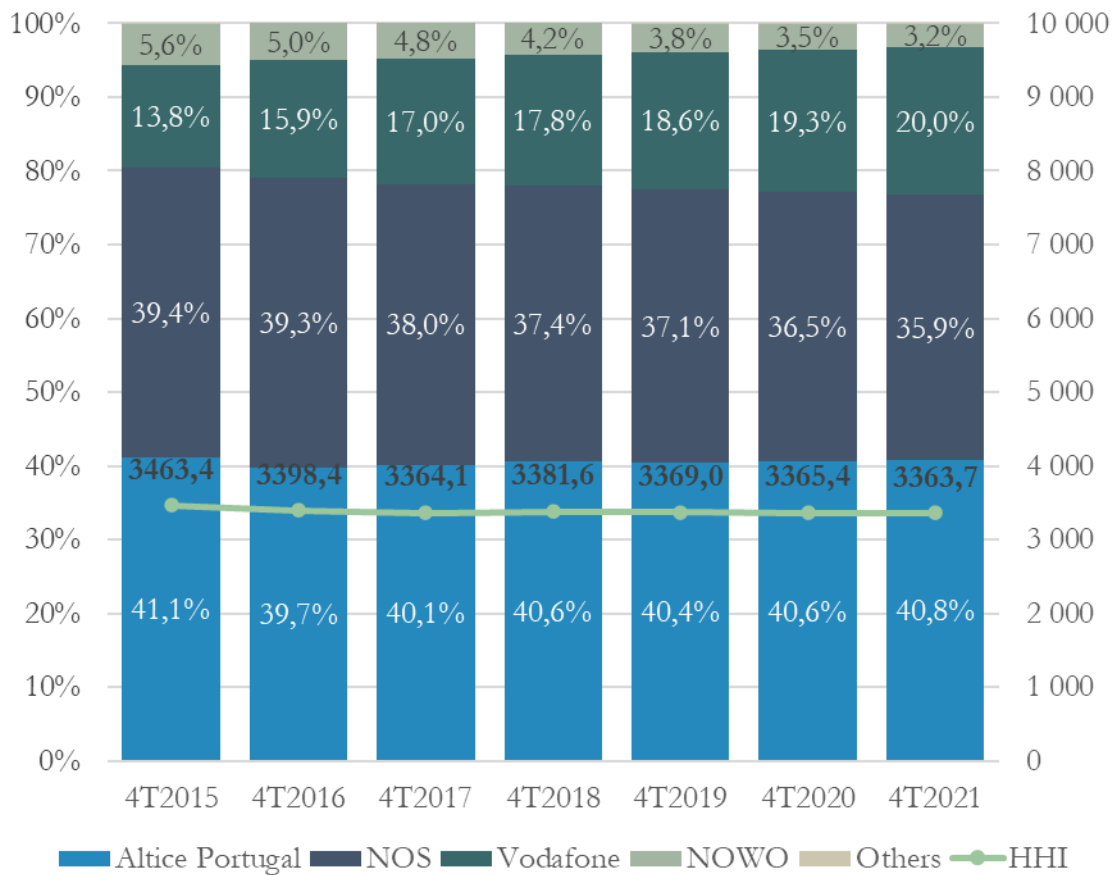
1. INTRODUCTION

The business world consistently deals with numerous challenges as competitors arise and new technologies are developed in different industries. Such a scenario leads companies to embrace innovative strategies that bring added value to their customers, ultimately developing a unique competitive advantage and strengthening ties with the stakeholders. This approach is valid, not only from a product point of view but also from a service frame, as some authors point out that the latter is being increasingly prioritised over the former in the marketing literature (Colorado & Mesias, 2021). In fact, over the past decades, multiple reasons have contributed to steady growth in the overall market competition (Mia & Clarke, 1999), offering customers seemingly limitless options for goods and services.

The telecommunications sector is characterised by fierce competition among its players as market penetration of some of its services frequently exceeds 100 per cent of the population in various countries (Halaoui et al., 2014). Therefore, boosting current customers' value is a major issue for service providers. This context highlights the importance of putting customers' needs first and developing long-lasting relationships with them (Gronroos, 1990). Analysing customer loyalty and its antecedents in these circumstances emerge as a critical success factor for companies. As a result, service providers are increasingly focusing on delivering top-quality services to their customers, promoting satisfaction, and earning their trust (Aslam et al., 2018).

In Portugal, telecommunications is a mature market with four significant players: Altice Portugal, NOS, Vodafone and NOWO. The sector is gradually leaning toward bundling services as ANACOM (2022) estimates that, at the end of the first quarter of 2022, the residential penetration of these services had reached 89,6 out of 100 households, representing a 3,67% average annual growth rate in the past five years. The bundling services of the four mentioned operators represented revenue of approximately 4,46 billion euros in 2021 (ANACOM, 2022). Even if the importance of telecommunications in the country is unquestioned, national and international institutions' reports usually indicate a high concentration (ANACOM, 2022; OECD, 2021). Figure 1. was elaborated based on data from ANACOM (2022) and portrays the market share of Portuguese telecom participants and the Herfindahl-Hirschman index (HHI) for this market. Apart from the previously referred four major players, other service providers account for a market share of no more than 0,1%. A small number of operators combined with a substantial market share from three of them led to an

Figure 1. Evolution of market shares and Herfindahl-Hirschman index



Note. Own elaboration with data from ANACOM (2022)

HHI value consistently above 2500, thus indicating high concentration according to the U.S. Department of Justice and the Federal Trade Commission (2010). This scenario implies a rather low competition and hence might be one of the reasons behind the relatively high prices this sector has in the country (OECD, 2021).

The Portuguese telecommunications market is, indeed, a unique one. During the first semester of 2022, the "Metadata Law" was in the media's light following a government's proposal to change some of its terms. Such a setting brought data privacy issues to the public debate, and multiple concerns arose as this bill contained clear orientations for service providers to preserve data regarding location, time and equipment used in communications throughout one year. Telecom operators' devotion to ensuring the privacy of their clients' information is critical at this point. Such circumstances call for an analysis of customers' perceptions of the effort service providers put into this subject as it might translate into reinforced or

decreased trust in a given company, ultimately impacting the duration of the customer-firm relationship (Geyskens et al., 1999).

In the past, numerous studies analysed customer loyalty and its antecedents in different market fields. The same subject was also extensively studied within the telecommunications market, and multiple constructs were put into various perspectives. Still, there seems to be a gap in the literature when considering the inclusion of privacy risk perceptions in such models. This study aims to fill this gap through a comprehensive conceptual model examining customer loyalty, satisfaction, trust, service quality, perceived value, and privacy risk, hence delivering strong insights both to research and managers. It is divided into five major sections, starting with an introduction and an extensive literature review where the seven mentioned constructs and their relationships are covered. Subsequently, the methodology is portrayed in detail, and the results are discussed afterwards. Finally, general conclusions, managerial implications, limitations, and suggestions for future research are depicted.

2. LITERATURE REVIEW

This chapter aims to disclose a deep understanding of the research subjects. The chapter begins with an overview on the concepts of customer loyalty and customer satisfaction (section 2.1.), followed by an inclusive understanding of its antecedents, comprising service quality (section 2.2.), perceived value (section 2.3.), and trust (section 2.4.). Further insights on data privacy are also provided in the latest section (section 2.5.).

2.1. Customer Satisfaction and Customer Loyalty

Previous research in the marketing field has been keen on establishing customer satisfaction as a critical precursor of customer loyalty (Dick & Basu, 1994; Fornell, 1992). This relationship is crucial to corporate management because it represents effective marketing programmes (Gupta & Zeithaml, 2006) that ultimately influence a company's financial success (Sun & Kim, 2013).

Oliver's view on customer satisfaction referred to it as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (1981, p. 27). In the same line of thought, Kim et al. (2015) adopt a perspective focused on consumers' thoughts on a post-purchase scenario compared to their initial expectations. Satisfaction is a comprehensive emotion influenced by aspects such as service quality, pricing, and contextual or personal circumstances (Zeithaml & Bitner, 1996). Therefore, it is seen as a vital and decisive aspect of repurchasing a product or acquiring a service, particularly an intangible one (Khodadad & Behboudi, 2017). The telecommunications market is not an exception to this, as Crosby et al. (1990) state that customers use satisfaction to forecast prospective experiences after evaluating their interactions with their current service providers.

It is clear that such a paradigm requires companies to consider customer satisfaction as a significant matter while developing strategies to promote it and create value for their business. This condition is reinforced by Fornell (1992), pointing out that customer satisfaction positively influences loyalty and leverages customer retention and acquisition by lowering price sensitivity and reducing costs.

On the other hand, customer loyalty is defined by Oliver as "a deeply held commitment to rebuy or repatronise a preferred product/service consistently in the future, thereby causing

repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (1997, p. 392). In addition to increasing the likelihood of future purchases, loyal customers are more inclined to increase their spending within the company as well as recommend the brand via positive word-of-mouth (Haumann et al., 2014; Qiu et al., 2015; Ryding, 2010).

Previous research has consistently identified a link between customer satisfaction and loyalty, even though authors such as Bae (2012) stress that this relationship shall not be taken for granted in a generalised way.

Concerning the telecommunications market, the former investigation has steadily recognised that customer satisfaction does promote post-purchase perceptions and actions, ultimately leading to increased customer loyalty (Calvo-Porrá & Lévy-Mangin, 2015; Gerpott et al., 2001; Kim et al., 2004; Morgeson et al., 2015).

Hence, the first hypothesis of this study is suggested as follows:

H1: Customer Satisfaction has major influence on Customer Loyalty.

2.2. Trust and Customer Satisfaction

Trust is regarded as one of the most meaningful antecedents of secure and collective partnerships in business (Akbar & Parvez, 2009). The former investigation has proposed multiple definitions of this construct, stating it was either dependent on a particular partner’s reliability and integrity (Morgan & Hunt, 1994), the ability of a service provider to match up to its commitments (Barnes, 1994), or its eagerness to count on a relationship with a different counterpart (Moorman et al., 1993).

Other authors postulate that trust consists of the assumption that an individual in a business relationship would behave in the best interest of their partner (Palmatier, 2008; Palmatier et al., 2007; Palmatier et al., 2009; Peña García, 2014; Taylor & Hunter, 2003) and the sense of integrity that is recognized between the individuals or groups involved (Liu, 2018). Thus, this construct is determined by the customer’s expectations on whether the service provider is reliable and follows through on its promises (Sirdeshmukh et al., 2002).

Kassim and Abdullah (2008) have established a link between customers who trust their service provider and satisfaction with it. Such a relationship exploits this construct’s relevance as a customer lacking confidence in its service provider will almost certainly be unsatisfied.

Concerning the Theory of Reasoned Action, it is also acknowledged that trust promotes satisfaction, which ultimately enhances loyalty (Aslam et al., 2018). These findings are aligned with other empirical studies that demonstrated similar results on the link between these two constructs, concluding that trust has a long-term effect on satisfaction, which, in turn, presumably increases with time (Chiou & Droge, 2006; Kim et al., 2009). Other authors, such as Rasheed and Abadi (2014), were also prone to set a strong relationship where trust leads to customer satisfaction.

Hence, the second hypothesis of this study is suggested as follows:

H2: Trust has a positive effect on Customer Satisfaction.

2.3. Service Quality, Customer Satisfaction and Trust

The definition and evaluation of service quality are not perfectly aligned among investigators (Carman, 1990). However, before defining this construct, one should attempt to understand what a service is in the first place. According to Gronroos (1990), services are intangible and diverse, which may imply different performances depending on the provider and the customer. The author also points out that its production is deeply linked to its consumption. Due to the service's particular characteristics, measuring service quality is more challenging than performing the same exercise in terms of a product (Aydin & Ozer, 2005).

One of the views on what this construct represents is postulated by Chiou and Droge (2006), who state that perceptions of service quality are composed of two factors: the tangible characteristics of the service and the interactive service offered by personnel. Therefore, quality can be defined as customers' notion of the value of services in a post-purchase scenario, providing insights to the firm on whether their services are valuable (Strenitzerová & Gaňa, 2018). Other authors define service quality as an attribute that concerns reliability, dependability, trustworthiness, and responsiveness (Wali & Nwokah, 2018). Cody and Hope (1999) also pointed out that the measurement of service quality may be linked to the procedure in which the service is delivered, as well as its output. Still, this study considers this construct to represent "the consumer's judgement about the overall excellence or superiority of a service" (Zeithaml, 1988, p.3).

Regarding a possible link between service quality and customer satisfaction, some authors suggest that a customer's assessment of the former represents a customer's level of

satisfaction with their post-purchase perception of the service (Parasuraman et al., 1988). Even though this relationship is not unanimously accepted among the academic community – as Bustamante (2015) contends that a positive relationship between service quality and satisfaction does not necessarily occur – customers’ thoughts on the quality of service are generally accepted to be decisive in determining customer satisfaction (Zeithaml & Bitner, 1996). Khan and Fasih (2014) also agree that service quality significantly influences a customer’s perception of a given service. An increased level of service quality promotes customer satisfaction and impacts consumers’ purchase behaviour (Venetis & Ghauri, 2004). This construct is also critical for success over time and gaining a competitive advantage (Kyoonyoo & Ah Park, 2007), therefore, being a key indicator of customer satisfaction concerning service providers’ efficiency (Kim et al., 2004). Similarly, Gitomer (1998) posits that delivering an up-to-date service that matches expectations enhances consumer satisfaction.

Hence, the third hypothesis of this study is suggested as follows:

H3: Service Quality has a positive effect on Customer Satisfaction.

Considerable research in the marketing field has attempted to establish a link between service quality and trust. Various academics, particularly in e-commerce, have sought to combine perceived trust and security measures into broad overall service quality dimensions (Janda et al., 2002; Kaynama & Black, 2000; Liljander et al., 2002). Nevertheless, several empirical studies have analysed the direct relationship between quality and trust (Chen et al., 2002; Sultan & Mooraj, 2001). Gounaris and Venetis (2002) were inclusively able to establish that the degree to which a customer trusts their service provider is influenced by service quality. Indeed, service providers promote specific offerings to assure their clients’ trust and to develop a relationship of confidence with them (Thaichon & Quach, 2015). For instance, concerning the 5G launch, service providers worldwide promoted free trial packages where customers could assess the quality of the fifth-generation mobile network for a limited time. Such strategies promote customer trust in a company’s dependability (Cronin & Taylor, 1994) and are likely to increase confidence in the service provider (Morgan & Hunt, 1994). In a nutshell, considering that trust relates to consumers’ views of a company’s reputation, credibility, and ability to meet expectations (Kim et al., 2008), it is tightly linked to service quality, making customers more inclined to trust a service provider that improves overall service quality (Gounaris & Venetis, 2002).

Hence, the fourth hypothesis of this study is suggested as follows:

H4: Service Quality has a positive effect on Trust.

2.4. Perceived Value, Customer Satisfaction and Trust

The concept of perceived value has been studied in many different circumstances (Parasuraman & Grewal, 2000; Sweeney & Soutar, 2001; Thaichon et al., 2014), and some authors inclusively state that its study has dominated the services literature (Cronin et al., 2000). Despite the introduction of numerous conceptual models of value (Holbrook, 1994; Sweeney & Soutar, 2001), perceived customer value has frequently been defined as the trade-off between what is received and provided by consumers when acquiring a service (Lai et al., 2009; Shirin & Puth, 2011; Tam, 2012). In the same line of thought, Colorado & Mesias (2021) suggest this construct represents the exercise customers make when setting different purchasing options side by side as well as the judgement of the utility and cost of each option. It is also important to mention that multiple authors advocate that value measurement depends on different factors, such as service type, situational conditions, previous experiences, and client attributes (Bolton & Drew, 1991; Whittaker et al., 2007). As a result, the definition of value potentially differs among customers (Zeithaml, 2000).

As Kim and Kang (2016) also posit that human behaviour is strongly linked to a comprehensive comparison of what is given and received, they conclude that perceived value is composed of four dimensions: functional, emotional, monetary, and social value. Zeithaml likewise proposes a multidimensional view of this construct, stating, “(1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, and (4) value is what I get for what I give.” (1988, p. 13). Other academics also differentiate functional and symbolic value concepts (Chen & Hu, 2010; Zeithaml, 1988). According to Lai et al. (2009), functional value entails broad assessments of quality and value for money. On the other hand, Zeithaml (1988) adds that it regards how customers evaluate the quality of the goods and services offered, their purchase price and the time sacrificed for the purchase. Contrarily, symbolic value denotes impressions of past experiences regarding community, feelings, aesthetics, and reputation (Chen & Hu, 2010). Customers are not indifferent to societal opinions, which consists of an external influence on symbolic value that is also comprised of an internal sense of desire and delight (Solomon, 1983). As far as this study is concerned, value is analysed as functional value with a particular focus on price and value for

money, since there is already a specific construct to analyse the perceptions of service quality. Regarding a possible relationship between perceived value and customer satisfaction, McDougall and Levesque (2000) state the importance of getting to the bottom of this potential link. In previous research on this topic, empirical studies of traditional retailers suggest that perceived value is likely to affect customer satisfaction positively (Cronin et al., 2000; Eggert & Ulaga, 2002; Sweeney & Soutar, 2001). Identical results were also produced in e-commerce (Hsu, 2006; Yang & Peterson, 2004) and multiple telecommunications markets worldwide (Lin & Wang, 2006; Tung, 2004; Turel & Serenko, 2006; Wang et al., 2004).

Hence, the fifth hypothesis of this study is suggested as follows:

H5: Perceived Value has a positive effect on Customer Satisfaction.

Trust usually results from a brand or company's ability to fulfil its promises (Doney & Cannon, 1997). Consequently, building and maintaining relationships in various trade scenarios depends on trust (Verhoef et al., 2002). Due to the intangible character of services, which bears a sense of unpredictability for customers through purchase and consumption, it is especially pointed out that a service relationship with a client depends on trust (Berry, 1995; Crosby et al., 1990).

Concerning the link between perceived value and trust, multiple authors posit that these two constructs have a positive connection (Harris & Goode, 2004; Singh & Sirdeshmukh, 2000). Indeed, some empirical studies propose trust assessments impact perceived value through customers' continuous interactions with service providers (Sirdeshmukh et al., 2002). Nevertheless, this relationship is mainly regarded in line with Harris and Goode's view, which state that "trust is a key and central factor during exchange, after accounting for previously established antecedents, namely; perceived value" (2004, p. 150). Other studies have reached the same conclusion on this subject (He et al., 2012; Moliner et al., 2007), inclusively in the telecommunications field (Karjaluoto et al., 2012).

Hence, the sixth hypothesis of this study is suggested as follows:

H6: Perceived Value has a positive effect on Trust.

2.5. Privacy Risk and Trust

The concept of privacy risk is an increasingly debated topic among researchers. Featherman et al. (2010) establish privacy risk as the outcome of research on information privacy (Goodwin, 1991; Westin, 1967) and perceived risk (Dowling & Staelin, 1994; Mitchell, 1999; Taylor, 1974) and define it as customers' perceptions of potential losses. Additionally, the authors note that this construct is based on an individual's evaluation of the probability of information misuse and data loss, which may eventually harm clients' privacy.

Information privacy has also progressively emerged as a significant concern for customers and is characterised as "the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others" (Westin, 1967, p.7). According to research, consumer privacy issues are pervasive, rising, and may worsen in the future (Miyazaki & Fernandez, 2001). Such situations are undoubtedly a crucial topic in the digital era (Caudill & Murphy, 2000; Sheehan & Hoy, 2000).

On the other hand, Perceived risk concerns customers' uncertainty regarding the outcome of their decisions (Arslan et al., 2013). Cox and Rich (1964) assert that negative outcomes and uncertainty are decisive components of the idea of perceived risk. A customer may experience risk when purchasing or dealing with uncertainty and unfavourable outcomes (Taylor, 1974; Zhang et al., 2011). As a result, if the outcomes were unfavourable, clients would sacrifice money, time, and other potential damage (Pérez-Cabañero, 2007). According to Jacoby et al. (1974), consumers may acknowledge different risks, including operational, physical, financial, social, psychological, and general perception of risk. Zhang et al. (2011) developed and validated more aspects of perceived risk, including social, economic, privacy, time, quality, health, delivery, and after-sale risks. This study focuses on studying perceived risk in terms of privacy.

One of the critical elements that influence customer behaviour is perceived risk (Park et al., 2019). Therefore, a positive relationship linking perceived risk to trust has been thoroughly studied in the past (Dunlap et al., 1993; Eiser et al., 2002; Frewer, 1999; Mayer et al., 1995; Wachinger et al., 2013; Zhou, 2013).

Hence, the final hypothesis of this study is suggested as follows:

H7: Privacy Risk has a positive effect on Trust.

3. METHODOLOGY

3.1. Conceptual model and research objectives

The chosen methodology for developing the investigation emphasises the research objectives and defines the model testing the proposed hypotheses. In fact, this study aims to understand the main drivers of customer satisfaction and loyalty in the Portuguese telecommunications sector in general while including perceived privacy risk in a complete model.

The suggested conceptual model (displayed in Fig. 2.) illustrates the relationships between constructs that were analysed in the previous chapter and is based on the revision and adaptation of models used in previous studies (Aslam et al., 2018; Aydin & Ozer, 2005; Colorado & Mesias, 2021; Libaque-Saenz et al., 2016). Aydin and Ozer (2005) set foundations for important connections between customer loyalty, trust, and service quality in the telecommunications sector, whereas Colorado and Mesias (2021) developed a comprehensive model, putting together different constructs that were previously studied separately. On the other hand, Libaque-Saenz et al. (2016) provided crucial insights into the connections between trust and information privacy in telecommunications.

Therefore, this model attempts to confirm and test existing theories in the literature within the Portuguese telecommunications market through the suggested hypotheses presented below:

H1: Customer Satisfaction has a major influence on Customer Loyalty.

H2: Trust has a positive effect on Customer Satisfaction.

H3: Service Quality has a positive effect on Customer Satisfaction.

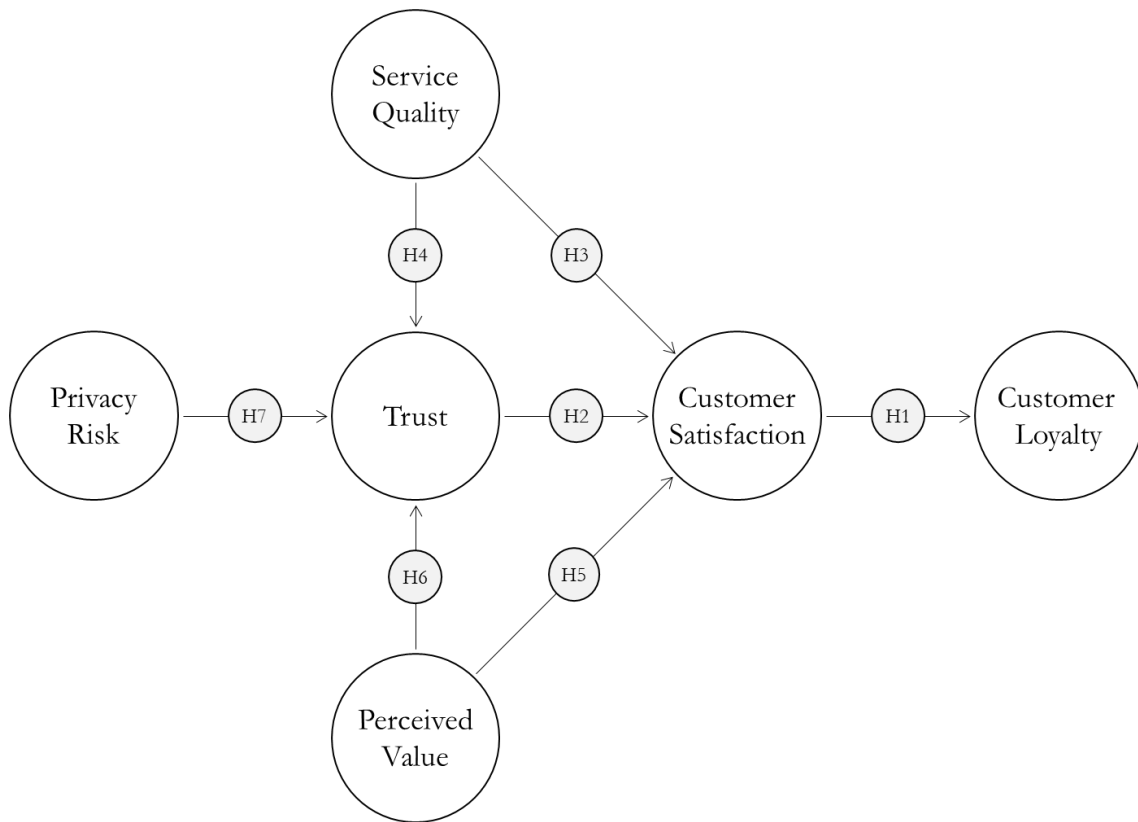
H4: Service Quality has a positive effect on Trust.

H5: Perceived Value has a positive effect on Customer Satisfaction.

H6: Perceived Value has a positive effect on Trust.

H7: Privacy Risk has a positive effect on Trust.

Figure 2. Proposed Conceptual Model



3.2. Survey and measurements

This study required the elaboration of a questionnaire, contained in a survey that was divided into two major sections: the first one consisted of items measuring the research variables – Customer Loyalty (CL), Customer Satisfaction (CS), Trust (TR), Service Quality (SQ), Perceived Value (PV), and Privacy Risk (PR) – and the second one regarded customer profile characteristics. To ensure well-grounded results, the measurement items in the questionnaire followed previously validated studies from the literature.

Since this study is targeted at the Portuguese market, the survey was available exclusively in Portuguese. This demanded a translation through the retro-translation method in which the items were first translated into Portuguese and were later translated back into English by a different individual, ultimately comparing the obtained and original items. It was also guaranteed a minimum of three items for each of the analysed constructs, which, according to Hair et al. (2010), provides estimates with a higher level of confidence. Still, it was considered crucial to shorten the total number of measures as Schmitt and Stults (1985) state it is an

effective way to reduce potential exhaustion or distraction from respondents, ultimately leading to rather biased results.

Finally, all items were measured using seven-point Likert scales where 1 indicates strong disagreement and 7 indicates strong agreement.

Table 1. Constructs and Measurement Items

Construct (Source)	Measurement
Customer Loyalty (Morgan & Govender, 2017)	CL1 I am loyal to my service provider.
	CL2 I will not switch my service provider.
	CL3 If I was starting again, I would choose my current service provider again as my main service provider.
Customer Satisfaction (Morgan & Govender, 2017)	CS1 Considering everything, I am satisfied with my service provider.
	CS2 My service provider always meets my expectations.
	CS3 I feel that my service provider gives me exactly what I need.
Trust (Aydin & Ozer, 2005)	TR1 I trust this company.
	TR2 I feel that I can rely on this company to serve well.
	TR3 I trust the billing system.
	TR4 I believe that I can trust this company will not try to cheat me.
Service Quality (Morgan & Govender, 2017)	SQ1 My service provider has an excellent service quality.
	SQ2 The network coverage/reception is good.
	SQ3 The internet speeds are fast.
Perceived Value (Morgan & Govender, 2017)	PV1 I get value for money with my service provider.
	PV2 The tariffs and fees at my service provider are fair.
	PV3 My service provider has good prices and promotions compared to competitors.

Privacy Risk (Taylor et al., 2015)	PR1	Keeping my personal information and activities confidential is a high priority for my service provider.
	PR2	My service provider regards information about my personal life as a strictly private matter.
	PR3	Guarding my personal information is one of the highest priorities of my service provider.
	PR4	Overall, my service provider has a strong need to protect my personal information.

3.3. Data collection and sample description

As was previously stated, the main research tool consisted of a structured questionnaire. The responses to this questionnaire were collected in a survey developed on Google Forms web-based software after a pre-test was done with a small sample of respondents. This process allowed the optimization and assessment of the understanding of each item and the questionnaire as a whole. The final version of the survey (see Annex 1.) was subsequently shared through e-mail and social media, collecting a total of 357 valid responses, gathered between 24th May and 6th June.

An altogether characterization of the sample is summarized in Table 2.

Table 2. Demographic Characteristics

Customer Profile	Frequency	Percentage
Gender		
Female	211	59,1%
Male	146	40,9%
Other	0	0,0%
Age range		
18 to 24	76	21,3%
25 to 34	35	9,8%

35 to 44	39	10,9%
45 to 54	83	23,2%
55 to 64	98	27,5%
65 or more	26	7,3%
Academic Degree		
Elementary School	0	0,0%
Middle School	4	1,1%
High School	74	20,7%
Bachelor Degree	143	40,1%
Post-graduate	32	9,0%
Master's Degree	83	23,2%
PhD	17	4,8%
Other	4	1,1%
Fibre coverage in residence area		
My current service provider has fibre coverage in my area	321	89,9%
Other service providers, but not my current one, have fibre coverage in my area	30	8,4%
No service provider has fibre coverage in my area	6	1,7%
Professional situation		
Student	61	17,1%
Employed	243	68,1%
Unemployed	4	1,1%
Retired	24	6,7%
Other	25	7,0%
Household size		
1 Person	32	9,0%

2 Persons	81	22,7%
3 Persons	103	28,9%
4 Persons	107	30,0%
5 or more persons	34	9,5%
Household net monthly income		
Up to 750€	15	4,2%
From 750€ to 1.500€	53	14,8%
From 1.500€ to 2.250€	77	21,6%
From 2.250€ to 3.000€	73	20,4%
More than 3.000€	139	38,9%
Grand Total	357	100,0%

3.4. Reliability and validity

This study involved performing several statistical tests to assess the data's reliability and validity before the hypotheses testing could be performed through Structural Equation Modelling (SEM). The process included an Exploratory Factor Analysis (EFA), followed by a Confirmatory Factor Analysis, among other statistical techniques that promoted the verification and optimization of the measurement model. The software tools used to conduct these analyses were IBM SPSS 27 and IBM AMOS 28.

3.4.1. Exploratory Factor Analysis (EFA)

Prior to the conduction of an EFA, the Kaiser-Meyer-Olkin measure for sampling adequacy (KMO) and Bartlett's sphericity test were performed to assess the data's suitability for factor analysis. According to Table 3., both these measures demonstrate the adequacy of the sample. On the one hand, an overall KMO of 0,945 may be evaluated as marvellous (Kaiser & Rice, 1974) and significantly above the recommended minimum of 0,600 (Tabachnick & Fidell, 2007). This number suggests a high proportion of variance among the variables derived from the systematic or common variance and thus an appropriate sample for factor

analysis. On the other hand, Bartlett’s sphericity test indicates a significance level of 0,000, revealing that the correlation matrix differs from the identity matrix. The communalities were also all above 0,600 (see Annex 2.). This scenario reinforces the adequacy of factor analysis.

Table 3. KMO and Bartlett's Test for Sphericity

Kaiser-Meyer-Olkin measure for sampling adequacy		0,945
	Approximate Chi-Square	6848,133
Bartlett's Test for Sphericity	Degrees of freedom	190
	Significance	0,000

Concerning EFA, Principal Axis Factoring was the chosen extraction method combined with Promax rotation. From the 23 items included in the questionnaire, three of them were removed following the results of the analysis. The factor loadings of the items remaining in the study ranged from 0,532 to 0,952 (see Annex 2.), above the cut-off value of 0,500 (Hair et al., 2009). Regarding internal consistency of the variables, all factors revealed fairly high Cronbach’s alpha (Taber, 2018), as demonstrated in Table 4.. These values suggest the high reliability of the items measuring each of the dimensions in the study. In what comes to item-total correlations, its values ranged from 0,554 to 0,858 (see Annex 2.), also above the usually recommended value of 0,400.

3.4.2. Confirmatory Factor Analysis (CFA)

After conducting an EFA, a Confirmatory Factor Analysis (CFA) was performed to assess the validity of the latent variables (Ahire et al., 1996). This test allowed measuring the level to which the collected data suited the measurement model. It also assessed the validity of the remaining 20 items in the measurement model before analysing the relationships of the variables in the structural model. In other words, CFA aims to evaluate the construct validity of a given measurement theory (Hair et al., 2009). Construct validity is usually assessed by analysing convergent and discriminant validity for each latent variable (Fornell & Larcker, 1981). The first can be defined as the property of items related to a particular construct.

These items typically converge or reveal a significant fraction of variance in common (Hair et al., 2009). Among the indicators that are usually pointed out as relevant to evaluate convergent validity are factor loadings. In this study, all items were statistically significant as they loaded above 0,500 (Hair et al., 2009) – see Annex 2.. Furthermore, Table 4. presents other insights on convergent validity with Composite Reliability (CR) and Average Variance Extracted (AVE).

Table 4. Cronbach’s alpha and convergent validity

Construct	Cronbach’s Alpha	CR	AVE
Customer Loyalty	0,776	0,789	0,564
Customer Satisfaction	0,902	0,937	0,833
Trust	0,905	0,928	0,763
Service Quality	0,891	0,911	0,773
Perceived Value	0,898	0,902	0,754
Privacy Risk	0,954	0,898	0,688

The former illustrates an aggregate view of the reliability of each construct and should have a value of at least 0,600 (Bagozzi & Yi, 1988), although more recent research suggests a minimum value of 0,700 (Hair et al., 2009). The latter represents the share of variance seized by the construct compared to variance related to measurement error and should have a value of no less than 0,500 (Fornell & Larcker, 1981). As Table 4. suggests, all the analysed constructs depict fair values, most of which are significantly above the minimum recommended. On the other hand, discriminant validity tests whether concepts are unrelated, even if they share similarities (Hair et al., 2009). As is demonstrated in Table 5., the values for squared correlations between all constructs are below values for AVE, granting the existence of discriminant validity in this study.

Table 5. Discriminant Validity

Factor	CL	CS	TR	SQ	PV	PR
CL	0,564	0,301	0,343	0,295	0,184	0,495
CS	0,548	0,833	0,424	0,485	0,549	0,543
TR	0,586	0,651	0,763	0,248	0,156	0,397
SQ	0,543	0,696	0,498	0,773	0,312	0,527
PV	0,429	0,741	0,394	0,558	0,754	0,388
PR	0,703	0,737	0,630	0,726	0,623	0,688

Note: Below the diagonal – correlations between variables; Above the diagonal – squared correlations between variables; Diagonal – AVE

Regarding model fit indices for the measurement model, the first evaluated index was χ^2/df , a standard for overall fit. This measure indicates a good model fit with insignificant p-values. However, throughout the last decades, new research has consistently demonstrated that the significance level of χ^2/df depends on sample size (Kuo et al., 2009). Bentler and Bonnett (1980) suggested that a more extensive sample would likely lead χ^2/df to attain the significance level, implying an inadequate model. In the same line of thought, Hair et al. (2009) also sustain that when considering a sample with more than 250 observations per observed variable, significant p-values should be expected for χ^2/df . Therefore, a model's goodness-of-fit should be assessed concerning multiple measures, including indices of absolute fit, incremental fit, goodness-of-fit, and badness-of-fit (Hair et al., 2009).

As the table below suggests, all the values evaluating goodness-of-fit within the measurement model indicate acceptable model fit for all indices following the recommended values from Hair et al. (2009). The listed recommended numbers considered the authors' revision from previous studies and have in mind the sample size and number of observed variables in this study – 357 responses and 20 observed variables.

Table 6. Measurement Model

Fit indices	Recommended Value	Result
χ^2 / df	< 3,000	2,568
GFI	> 0,900	0,904
AGFI	> 0,800	0,865
RMSEA	< 0,070	0,066
NFI	> 0,900	0,945
CFI	> 0,920	0,966
IFI	> 0,900	0,966
TLI	> 0,920	0,956

4. RESULTS

4.1. Results of the hypotheses test

After developing the measurement model, the latter was linked to the proposed conceptual model using SEM. Previous research in the management field has been keen on using Structural Equation Modelling as it offers a broad and valuable framework for statistical analysis. SEM consists of statistical procedures that estimate and examine the connections between observable and latent variables (Beran & Violato, 2010). Notably, it is a technique for data analysis which incorporates linear regression with confirmatory factor analysis, frequently being the ideal option for social sciences (Ecob & Cuttance, 1987).

As was previously done within the measurement model, Table 7. likewise displays the goodness-of-fit indices' values for the structural model. Again, all numbers indicate a good model fit for all indices following the recommended values from Hair et al. (2009), implying the structural model fits adequately with the empirical data.

Table 7. Structural Model

Fit indices	Recommended Value	Result
χ^2 / df	< 3,000	2,520
GFI	> 0,900	0,903
AGFI	> 0,800	0,868
RMSEA	< 0,070	0,065
NFI	> 0,900	0,945
CFI	> 0,920	0,966
IFI	> 0,900	0,966
TLI	> 0,920	0,958

Considering the structural model revealed a satisfactory fit, the analysis then proceeded to estimate the path coefficients between variables, confirming or rejecting this investigation's

suggested hypotheses. Table 8. portrays the results for the seven hypotheses in this study, including standardised estimates, standard error, critical ratio, significance level, and final result of approval. Except for H4 and H6, all hypotheses were significant ($p < 0,001$) and consequently accepted. The following subsections analyse the hypotheses' results in detail.

Table 8. Results of hypothesis tests

Hypothesis (Path)	β	S.E.	C.R.	p	Result
H1 (CS → CL)	0,961	0,073	13,210	***	Confirmed
H2 (TR → CS)	0,101	0,077	1,316	0,188	Rejected
H3 (SQ → CS)	0,701	0,082	8,540	***	Confirmed
H4 (SQ → TR)	0,466	0,059	7,915	***	Confirmed
H5 (PV → CS)	0,055	0,052	1,055	0,291	Rejected
H6 (PV → TR)	0,275	0,054	5,081	***	Confirmed
H7 (PR → TR)	0,335	0,039	8,537	***	Confirmed

*Note: β – Standardised estimate; S.E. – Standard Error; C.R. – Critical Ratio; p – Significance; *** – $p=0,000$*

4.2. Customer Satisfaction and Customer Loyalty

The results in Table 8. indicate the acceptance of H1 with a solid support (H1: $\beta=0,961$; $p=0,000$), establishing customer satisfaction as the primary driver of customer loyalty in this study. Such a conclusion is corroborated by previous research in the field. Indeed, Kim et al. (2004) concluded that highly satisfied customers tend to stay with their current service providers and keep their subscriptions. Multiple studies firmly confirm the relationship between customer satisfaction and customer loyalty in the literature, inclusively in the telecommunications sector (Aslam et al., 2018; Chuah et al., 2017; Colorado & Mesias, 2021; Gerpott et al., 2001; Karjaluoto et al., 2012; Kaur & Soch, 2018; Morgan & Govender, 2017; Solimun & Fernandes, 2018).

4.3. Trust and Customer Satisfaction

Analysing the outcomes for H2, the numbers suggest its rejection (H2: $\beta=0,077$; $p=0,188$). In fact, there is a positive yet frail and insignificant relationship between trust and customer satisfaction, thus not supporting this hypothesis. Contrarily to what the reviewed literature suggests, where the link between these two dimensions was frequently supported (Aslam et al., 2018; Chiou & Droge, 2006; Kassim & Abdullah, 2008; Kim et al., 2009; Rasheed & Abadi, 2014), it is essential to take into consideration the particularities of the Portuguese telecommunications market. As was previously mentioned, this sector is characterised by a high concentration, making it somewhat less competitive as the three major players tend to adopt similar behaviours. This scenario might explain the insignificance of some constructs in promoting the satisfaction of Portuguese customers. Indeed, as the main service providers in the country have identical ways of conduct, trust does not reveal to be a key determinant of customers' satisfaction, having a rather neutral impact on it.

4.4. Service Quality, Customer Satisfaction and Trust

The empirical data also aligned with the hypothesized link between service quality and customer satisfaction, thus confirming H3 (H3: $\beta=0,701$; $p=0,000$). Even if few researchers found this relationship inconclusive (Morgan & Govender, 2017), this scenario seems to be an exception to most of the previously made analyses. Therefore, with support from the literature (Aslam et al., 2018; Colorado & Mesias, 2021; Kuo et al., 2009; Solimun & Fernandes, 2018; Thaichon & Quach, 2015), this study concludes that customers' assessment of a service's quality reflects their satisfaction with that service.

Similarly, values in Table 8. point out the confirmation of H4, establishing a connection in which service quality promotes trust among customers (H4: $\beta=0,466$; $p=0,000$). Once again, other authors also hypothesized and confirmed this same tie in the past (Aydin & Ozer, 2005; Colorado & Mesias, 2021; Thaichon & Quach, 2015), suggesting this is a crucial relationship in the telecommunications market around the world.

4.5. Perceived Value, Customer Satisfaction and Trust

This study's findings indicate that the link between perceived value and customer satisfaction is not supported (H5: $\beta=0,055$; $p=0,291$). Even if there is a positive relationship between

these two constructs, the connection is insignificant, conversely to what is often verified in the marketing literature (Colorado & Mesias, 2021). Therefore, a justification for this result might lean predominantly on two factors. Firstly, as was noted before, this study regards perceived value from a functional point of view, emphasising price and value for money. Considering this assumption, the rejection of H5 aligns with findings from Kim et al. (2004), where the effect of pricing structure on customer satisfaction was not statistically verified, concluding that the former has little to no impact on the latter. A second reason for this outcome might be related to the concentration of the Portuguese telecommunications market. According to OECD (2021), broadband prices are reasonably high, and service providers have no incentive to change them, as competition is low due to high concentration. This situation might reinforce perceived value's negligibility on satisfaction according to the referred assumption.

Oppositely, the gathered data implies the acceptance of H6 (H6: $\beta = 0,275$; $p=0,000$), hence confirming a positive link between perceived value and trust. This finding is in line with the literature, as this relationship has consistently been confirmed over the years. In fact, studies in multiple fields, including the telecommunications sector, have reached similar conclusions (Colorado & Mesias, 2021; Karjaluoto et al., 2012).

4.6. Data Privacy and Trust

Table 8. suggests that privacy risk positively affects trust, confirming H7 (H7: $\beta=0,335$; $p=0,000$). The confirmation of this relationship is fundamental for this analysis, as there was little study of this particular link within the telecommunications field. Still, the findings are in line with conclusions from Libaque-Saenz et al. (2016), in which multiple dimensions of privacy and information risks are related to trust and evaluated in a thorough model.

5. CONCLUSION

5.1. General conclusions

The Portuguese telecommunications market is well-developed due to the continuous investment made by the major service providers in the past decades. Despite institutions' statements referring to its relatively low competition, the country usually ranks among the best in Europe in broadband capacity and high-speed internet, which covers the vast majority of the country. As was previously mentioned, the characteristics of this market make it unique. This study's primary goal was to combine the most critical determinants of customer loyalty and satisfaction in the telecommunications sector, considering the vast literature in the field to select the necessary constructs. Thus, the impact of service quality, trust and perceived value on customer satisfaction was hypothesized and estimated. Besides, it aimed to develop a model where customers' perceptions of privacy risk were included since the subject is an increasing point of focus worldwide and its relevance in Portugal is currently more significant following the public debate on the "Metadata Law". The links between variables were assessed through structural equations after the reliability and validity of the data were confirmed.

Despite having negligibly different objectives, few investigations have been developed in Portugal with a similar approach to loyalty in telecommunications (Coelho, 2020; Monteiro, 2013). This study's considerable sample size and the multiple tests performed on the questionnaire, its measurements and constructs contribute to high confidence in the trustworthiness of this study's findings. Hence, this investigation represents a notable addition to the literature as it evaluated the suggested hypotheses in the sector. Not only does it confirm some major accepted views on the subject, but it also establishes the differences the field has in the country compared to other nations. Notably, the insignificance of trust and perceived value on customer satisfaction were majorly explained by market particularities. Still, the prominence of service quality in driving satisfaction in this field was also demonstrated by Kim et al. (2004) through a descriptive statistical analysis of empirical data. Furthermore, this study provides unique insights into how privacy risk relates to trust, as this relationship in the telecommunications market was scarcely analysed in the past. In fact, privacy risk was demonstrated to be one of the drivers of trust for Portuguese clients with solid support.

5.2. Managerial implications

This study's findings also provide critical information for managers in the Portuguese telecommunications field. As the market is mature, service providers should adapt their strategies to promote longer customer-firm relationships, increasing loyalty. The analysis was keen on concluding that satisfaction is undoubtedly the primary driver of customer loyalty. Furthermore, the results demonstrated that satisfaction is more likely to be explained by service quality, suggesting that the head of organisations should focus on building methods that promote it. Such strategies can deliver a sustainable competitive advantage for mobile operators if implemented successfully.

For companies aiming to foster trust among their clients, this study's main conclusions also suggest the importance of emphasising the dedication to preserving customers' data safely. Indeed, their perceptions on this matter influence trust in a given service provider. Therefore, telecommunications companies should protect users' data through transparent policies on how they store it and under which circumstances they are allowed to use it.

5.3. Limitations and further research

As in all academic domains, this study is not without limitations that might require some consideration in the analysis of its findings. Certainly, there are no absolute truths. The first limitation is related to the sample used in this study. Despite trying to maximise its randomness and diversity, the results only refer to this sample and comprise the Portuguese market. Therefore, its generalisation to other countries should be made carefully. In addition, it considers solely one of the various dimensions of perceived value. Future research can explore this construct within its multiple extents. Thirdly, this study did not examine a potential mediating role of satisfaction in an indirect relationship between service quality, trust, and perceived value on customer loyalty. Similarly, this subject is suggested to be studied in further research. Finally, as there was a scarce investigation made on privacy risk regarding the telecommunications sector, it is recommended that, in the future, its effect is analysed in different countries.

REFERENCES

- Ahire, S. L., Golhar, D. Y., & Waller, M. A. (1996). Development and Validation of TQM Implementation Constructs. *Decision Sciences*, 27(1), 23-56. <https://doi.org/10.1111/j.1540-5915.1996.tb00842.x>
- Akbar, M. M., & Parvez, N. (2009). Impact of service quality, trust, and customer satisfaction on customers loyalty. *ABAC journal*, 29(1), 24-38. <http://www.assumptionjournal.au.edu/index.php/abacjournal/article/view/526>
- ANACOM. (2022). *Pacotes de serviços de comunicações eletrónicas*. https://anacom.pt/streaming/PacotesServicos1T22.pdf?contentId=1723322&field=ATTACHED_FILE
- Arslan, Y., Geçti, F., & Zengin, H. (2013). Examining perceived risk and its influence on attitudes: A study on private label consumers in Turkey. *Asian Social Science*, 9(4), 158-166. <https://doi.org/10.5539/ass.v9n4p158>
- Aslam, W., Arif, I., Farhat, K., & Khursheed, M. (2018). THE ROLE OF CUSTOMER TRUST, SERVICE QUALITY AND VALUE DIMENSIONS IN DETERMINING SATISFACTION AND LOYALTY: AN EMPIRICAL STUDY OF MOBILE TELECOMMUNICATION INDUSTRY IN PAKISTAN. *Market-Tržište*, 30(2), 177-194. <https://doi.org/10.22598/mt/2018.30.2.177>
- Aydin, S., & Ozer, G. (2005). The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication market. *European Journal of Marketing*, 39(7-6), 910-925. <https://doi.org/10.1108/03090560510601833>
- Bae, Y. H. (2012). *Three essays on the customer satisfaction-customer loyalty association* [University of Iowa]. <https://doi.org/10.17077/etd.6a0oy9du>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94. <https://doi.org/10.1007/BF02723327>
- Barnes, J. G. (1994). Close to the customer: But is it really a relationship? *Journal of Marketing Management*, 10(7), 561-570. <https://doi.org/10.1080/0267257X.1994.9964304>
- Bentler, P. M., & Bonnett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, 88(3), 588-606. <https://doi.org/10.1037/0033-2909.88.3.588>
- Beran, T. N., & Violato, C. (2010). Structural equation modeling in medical research: a primer. *BMC Research Notes*, 3(1), 267. <https://doi.org/10.1186/1756-0500-3-267>

- Berry, L. L. (1995). Relationship Marketing of Services—Growing Interest, Emerging Perspectives. *Journal of the Academy of Marketing Science*, 23(4), 236-245. <https://doi.org/10.1177/009207039502300402>
- Bolton, R. N., & Drew, J. H. (1991). A Longitudinal Analysis of the Impact of Service Changes on Customer Attitudes. *Journal of Marketing*, 55(1), 1-9. <https://doi.org/10.2307/1252199>
- Bustamante, J. C. (2015). Uso de variables mediadoras y moderadoras en la explicación de la lealtad del consumidor en ambientes de servicios. *Estudios Gerenciales*, 31(136), 299-309. <https://doi.org/10.1016/j.estger.2015.05.002>
- Calvo-Porrá, C., & Lévy-Mangin, J.-P. (2015). Switching behavior and customer satisfaction in mobile services: Analyzing virtual and traditional operators. *Computers in Human Behavior*, 49, 532-540. <https://doi.org/10.1016/j.chb.2015.03.057>
- Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing*, 66(1), 33-55.
- Caudill, E. M., & Murphy, P. E. (2000). Consumer Online Privacy: Legal and Ethical Issues. *Journal of Public Policy & Marketing*, 19(1), 7-19. <https://doi.org/10.1509/jppm.19.1.7.16951>
- Chen, L.-d., Gillenson, M. L., & Sherrell, D. L. (2002). Enticing online consumers: an extended technology acceptance perspective. *Information & Management*, 39(8), 705-719. [https://doi.org/10.1016/S0378-7206\(01\)00127-6](https://doi.org/10.1016/S0378-7206(01)00127-6)
- Chen, P.-T., & Hu, H.-H. (2010). The effect of relational benefits on perceived value in relation to customer loyalty: An empirical study in the Australian coffee outlets industry. *International Journal of Hospitality Management*, 29(3), 405-412. <https://doi.org/10.1016/j.ijhm.2009.09.006>
- Chiou, J.-S., & Droge, C. (2006). Service quality, trust, specific asset investment, and expertise: Direct and indirect effects in a satisfaction-loyalty framework. *Journal of the Academy of Marketing Science*, 34(4), 613. <https://doi.org/10.1177/0092070306286934>
- Chuah, S. H.-W., Rauschnabel, P. A., Marimuthu, M., Thurasamy, R., & Nguyen, B. (2017). Why do satisfied customers defect? A closer look at the simultaneous effects of switching barriers and inducements on customer loyalty. *Journal of Service Theory and Practice*, 27(3), 616-641. <https://doi.org/10.1108/JSTP-05-2016-0107>
- Cody, K., & Hope, B. (1999, December 1-3). EX-SERVQUAL: an instrument to measure service quality of extranets. Proceedings of the 10th Australasian Conference on

Information Systems, Wellington, New Zealand.

- Coelho, C. F. C. M. C. (2020). *O impacto da discriminação de preços e os fatores que antecedem e influenciam a lealdade à marca no sector das telecomunicações em Portugal* [Master thesis, Iscte - Instituto Universitário de Lisboa]. Repositório do Iscte. <http://hdl.handle.net/10071/21234>
- Colorado, L. C. H., & Mesias, J. F. T. (2021). Understanding Antecedents of Consumer Loyalty toward an Emerging Country's Telecommunications Companies. *Journal of International Consumer Marketing*. <https://doi.org/10.1080/08961530.2021.1951917>
- Cox, D. F., & Rich, S. U. (1964). Perceived Risk and Consumer Decision-Making: The Case of Telephone Shopping. *Journal of Marketing Research*, 1(4), 32-39. <https://doi.org/10.2307/3150375>
- Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of retailing*, 76(2), 193-218. [https://doi.org/10.1016/S0022-4359\(00\)00028-2](https://doi.org/10.1016/S0022-4359(00)00028-2)
- Cronin, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality. *Journal of Marketing*, 58(1), 125-131. <https://doi.org/10.2307/1252256>
- Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship Quality in Services Selling: An Interpersonal Influence Perspective. *Journal of Marketing*, 54(3), 68-81. <https://doi.org/10.1177/002224299005400306>
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113. <https://doi.org/10.1177/0092070394222001>
- Doney, P. M., & Cannon, J. P. (1997). An Examination of the Nature of Trust in Buyer-Seller Relationships. *Journal of Marketing*, 61(2), 35-51. <https://doi.org/10.1177/002224299706100203>
- Dowling, G. R., & Staelin, R. (1994). A Model of Perceived Risk and Intended Risk-handling Activity. *Journal of Consumer Research*, 21(1), 119-134. <https://doi.org/10.1086/209386>
- Dunlap, R. E., Kraft, M. E., & Rosa, E. A. (1993). *Public reactions to nuclear waste: Citizens' views of repository siting* (1 ed.). Duke University Press.
- Ecob, R., & Cuttance, P. (1987). An overview of structural equation modeling. In *Structural*

- modeling by example: Applications in educational, sociological, and behavioral research.* (pp. 9-23). Cambridge University Press.
- Eggert, A., & Ulaga, W. (2002). Customer perceived value: a substitute for satisfaction in business markets? *Journal of Business & Industrial Marketing*, 17(2/3), 107-118. <https://doi.org/10.1108/08858620210419754>
- Eiser, J. R., Miles, S., & Frewer, L. J. (2002). Trust, Perceived Risk, and Attitudes Toward Food Technologies. *Journal of Applied Social Psychology*, 32(11), 2423-2433. <https://doi.org/10.1111/j.1559-1816.2002.tb01871.x>
- Featherman, M. S., Miyazaki, A. D., & Sprott, D. E. (2010). Reducing online privacy risk to facilitate e-service adoption: the influence of perceived ease of use and corporate credibility. *Journal of Services Marketing*, 24(3), 219-229. <https://doi.org/10.1108/08876041011040622>
- Fornell, C. (1992). A NATIONAL CUSTOMER SATISFACTION BAROMETER - THE SWEDISH EXPERIENCE. *Journal of Marketing*, 56(1), 6-21. <https://doi.org/10.2307/1252129>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Frewer, L. (1999). Risk Perception, Social Trust, and Public Participation in Strategic Decision Making: Implications for Emerging Technologies. *Ambio*, 28(6), 569-574. <http://www.jstor.org/stable/4314956>
- Gerpott, T. J., Rams, W., & Schindler, A. (2001). Customer retention, loyalty, and satisfaction in the German mobile cellular telecommunications market. *Telecommunications Policy*, 25(4), 249-269. [https://doi.org/10.1016/s0308-5961\(00\)00097-5](https://doi.org/10.1016/s0308-5961(00)00097-5)
- Geyskens, I., Steenkamp, J.-B. E. M., & Kumar, N. (1999). A Meta-Analysis of Satisfaction in Marketing Channel Relationships. *Journal of Marketing Research*, 36(2), 223-238. <https://doi.org/10.1177/002224379903600207>
- Gitomer, J. (1998). *Customer Satisfaction Is Worthless, Customer Loyalty Is Priceless: How to Make Customers Love You, Keep Them Coming Back, and Tell Everyone They Know*. Bard Press.
- Goodwin, C. (1991). Privacy: Recognition of a Consumer Right. 10(1), 149-166. <https://doi.org/10.1177/074391569101000111>
- Gounaris, S. P., & Venetis, K. (2002). Trust in industrial service relationships: behavioral consequences, antecedents and the moderating effect of the duration of the

- relationship. *Journal of Services Marketing*, 16(7), 636-655.
<https://doi.org/10.1108/08876040210447351>
- Gronroos, C. (1990). Relationship approach to marketing in service contexts: The marketing and organizational behavior interface. *Journal of Business Research*, 20(1), 3-11.
[https://doi.org/10.1016/0148-2963\(90\)90037-E](https://doi.org/10.1016/0148-2963(90)90037-E)
- Gupta, S., & Zeithaml, V. (2006). Customer Metrics and Their Impact on Financial Performance. *Marketing Science*, 25(6), 718-739.
<https://doi.org/10.1287/mksc.1060.0221>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis: A Global Perspective* (Seventh ed.). Prentice Hall.
- Halaoui, H., Fadel, H., Makki, M., & Mansour, M. (2014). *Hitting the target: Analytical imperatives for telecom marketers in emerging markets*. Strategy&. <https://www.strategyand.pwc.com/m1/en/reports/hitting-the-target.pdf>
- Harris, L. C., & Goode, M. M. H. (2004). The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. *Journal of Retailing*, 80(2), 139-158.
<https://doi.org/10.1016/j.jretai.2004.04.002>
- Haumann, T., Quaiser, B., Wieseke, J., & Rese, M. (2014). Footprints in the Sands of Time: A Comparative Analysis of the Effectiveness of Customer Satisfaction and Customer–Company Identification over Time. *Journal of Marketing*, 78(6), 78-102.
<https://doi.org/10.1509/jm.13.0509>
- He, H., Li, Y., & Harris, L. (2012). Social identity perspective on brand loyalty. *Journal of Business Research*, 65(5), 648-657. <https://doi.org/10.1016/j.jbusres.2011.03.007>
- Holbrook, M. (1994). The nature of customer value: an axiology of services in the consumption experience. *Service quality: New directions in theory and practice*, 21(1), 21-71.
- Hsu, H. (2006). An empirical study of web site quality, customer value, and customer satisfaction based on e-shop. *The Business Review*, 5(1), 190-193.
- Janda, S., Trocchia, P. J., & Gwinner, K. P. (2002). Consumer perceptions of Internet retail service quality. *International Journal of Service Industry Management*, 13(5), 412-431.
<https://doi.org/10.1108/09564230210447913>
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark Iv. *Educational and Psychological Measurement*, 34(1), 111-117. <https://doi.org/10.1177/001316447403400115>
- Kaplan, L. B., Szybillo, G. J., & Jacoby, J. (1974). Components of perceived risk in product purchase: A cross-validation. *Journal of Applied Psychology*, 59(3), 287-291.

<https://doi.org/10.1037/h0036657>

- Karjaluoto, H., Jayawardhena, C., Leppaniemi, M., & Pihlstrom, M. (2012). How value and trust influence loyalty in wireless telecommunications industry. *Telecommunications Policy*, 36(8), 636-649. <https://doi.org/10.1016/j.telpol.2012.04.012>
- Kassim, N. M., & Abdullah, N. A. (2008). Customer Loyalty in e-Commerce Settings: An Empirical Study. *Electronic Markets*, 18(3), 275-290. <https://doi.org/10.1080/10196780802265843>
- Kaur, H., & Soch, H. (2018). Satisfaction, trust and loyalty: investigating the mediating effects of commitment, switching costs and corporate image. *Journal of Asia Business Studies*, 12(4), 361-380. <https://doi.org/10.1108/jabs-08-2015-0119>
- Kaynama, S. A., & Black, C. I. (2000). A Proposal to Assess the Service Quality of Online Travel Agencies: An Exploratory Study. *Journal of Professional Services Marketing*, 21(1), 63-88. https://doi.org/10.1300/J090v21n01_05
- Khan, M. M., & Fasih, M. (2014). Impact of Service Quality on Customer Satisfaction and Customer Loyalty: Evidence from Banking Sector. *Pakistan Journal of Commerce and Social Sciences*, 8(2), 331-354. <https://www.proquest.com/scholarly-journals/impact-service-quality-on-customer-satisfaction/docview/1561928546/se-2>
- Khodadad, S. H., & Behboudi, L. (2017). Brand trust and image: effects on customer satisfaction. *International Journal of Health Care Quality Assurance*, 30(7), 580-590. <https://doi.org/10.1108/IJHCQA-04-2016-0054>
- Kim, B., & Kang, M. (2016). How user loyalty and nonconscious inertia influence the continued use of mobile communications platforms. *International Journal of Mobile Communications*, 14(4), 387-410. <https://doi.org/10.1504/ijmc.2016.077337>
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2009). Trust and Satisfaction, Two Stepping Stones for Successful E-Commerce Relationships: A Longitudinal Exploration. 20(2), 237-257. <https://doi.org/10.1287/isre.1080.0188>
- Kim, D. J., Jeong, E. J., & Hwang, Y. (2015). A Study of Online Portal Users' Loyalty From Core Service, Additional Value-added Service and Switching Barriers Perspectives. *Information Systems Management*, 32(2), 136-152. <https://doi.org/10.1080/10580530.2015.1018774>
- Kim, J., Morris, J. D., & Swait, J. (2008). Antecedents of True Brand Loyalty. *Journal of Advertising*, 37(2), 99-117. <https://doi.org/10.2753/JOA0091-3367370208>
- Kim, M. K., Park, M. C., & Jeong, D. H. (2004). The effects of customer satisfaction and

- switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommunications Policy*, 28(2), 145-159.
<https://doi.org/10.1016/j.telpol.2003.12.003>
- Kuo, Y.-F., Wu, C.-M., & Deng, W.-J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. *Computers in Human Behavior*, 25(4), 887-896.
<https://doi.org/10.1016/j.chb.2009.03.003>
- Kyoon Yoo, D., & Ah Park, J. (2007). Perceived service quality. *International Journal of Quality & Reliability Management*, 24(9), 908-926.
<https://doi.org/10.1108/02656710710826180>
- Lai, F., Griffin, M., & Babin, B. J. (2009). How quality, value, image, and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research*, 62(10), 980-986.
<https://doi.org/10.1016/j.jbusres.2008.10.015>
- Libaque-Saenz, C. F., Wong, S. F., Chang, Y., Ha, Y. W., & Park, M. C. (2016). Understanding antecedents to perceived information risks: An empirical study of the Korean telecommunications market. *Information Development*, 32(1), 91-106.
<https://doi.org/10.1177/0266666913516884>
- Liljander, V., van Riel, A. C. R., & Pura, M. (2002). Customer satisfaction with e-services: The case of an online recruitment portal. In M. Bruhn & B. Stauss (Eds.), *Electronic Services: Dienstleistungsmanagement Jahrbuch 2002* (pp. 407-432). Gabler Verlag.
https://doi.org/10.1007/978-3-8349-4418-4_17
- Lin, H.-H., & Wang, Y.-S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & Management*, 43(3), 271-282.
<https://doi.org/10.1016/j.im.2005.08.001>
- Liu, S.-W. (2018). The impact of perceived hidden inflation on service quality-customer brand loyalty: mobile phone service in Taiwan. 7(2), 160-173.
<https://doi.org/10.1504/ijscm.2018.091607>
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An Integrative Model Of Organizational Trust. *Academy of Management Review*, 20(3), 709-734.
<https://doi.org/10.5465/amr.1995.9508080335>
- McDougall, G. H. G., & Levesque, T. (2000). Customer satisfaction with services: putting perceived value into the equation. *Journal of Services Marketing*, 14(5), 392-410.
<https://doi.org/10.1108/08876040010340937>

- Mia, L., & Clarke, B. (1999). Market competition, management accounting systems and business unit performance. *Management Accounting Research*, 10(2), 137-158. <https://doi.org/10.1006/mare.1998.0097>
- Mitchell, V. W. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of Marketing*, 33(1/2), 163-195. <https://doi.org/10.1108/03090569910249229>
- Miyazaki, A. D., & Fernandez, A. (2001). Consumer Perceptions of Privacy and Security Risks for Online Shopping. *The Journal of Consumer Affairs*, 35(1), 27-44. <https://doi.org/10.1111/j.1745-6606.2001.tb00101.x>
- Moliner, M. A., Sánchez, J., Rodríguez, R. M., & Callarisa, L. (2007). Relationship Quality with a Travel Agency: The Influence of the Postpurchase Perceived Value of a Tourism Package. *Tourism and Hospitality Research*, 7(3-4), 194-211. <https://doi.org/10.1057/palgrave.thr.6050052>
- Monteiro, P. d. S. (2013). *A lealdade dos clientes nas telecomunicações móveis* [Master thesis, FEUC]. Repositório científico da UC. <http://hdl.handle.net/10316/24627>
- Moorman, C., Deshpandé, R., & Zaltman, G. (1993). Factors Affecting Trust in Market Research Relationships. 57(1), 81-101. <https://doi.org/10.1177/002224299305700106>
- Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. 58(3), 20-38. <https://doi.org/10.1177/002224299405800302>
- Morgan, S., & Govender, K. (2017). Exploring customer loyalty in the South African mobile telecommunications sector. *Cogent Business & Management*, 4, Article 1273816. <https://doi.org/10.1080/23311975.2016.1273816>
- Morgeson, F. V., Sharma, P. N., & Hult, G. T. M. (2015). Cross-National Differences in Consumer Satisfaction: Mobile Services in Emerging and Developed Markets. 23(2), 1-24. <https://doi.org/10.1509/jim.14.0127>
- OECD. (2021). *Economic Surveys: Portugal 2021*. <https://www.oecd.org/economy/surveys/Portugal-2021-OECD-economic-survey-overview.pdf>
- Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*, 57(3), 25-48.
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. McGraw-Hill.
- Palmatier, R. W. (2008). Interfirm Relational Drivers of Customer Value. 72(4), 76-89. <https://doi.org/10.1509/jmkg.72.4.076>

- Palmatier, R. W., Dant, R. P., & Grewal, D. (2007). A Comparative Longitudinal Analysis of Theoretical Perspectives of Interorganizational Relationship Performance. *71*(4), 172-194. <https://doi.org/10.1509/jmkg.71.4.172>
- Palmatier, R. W., Jarvis, C. B., Bechhoff, J. R., & Kardes, F. R. (2009). The Role of Customer Gratitude in Relationship Marketing. *73*(5), 1-18. <https://doi.org/10.1509/jmkg.73.5.1>
- Parasuraman, A., & Grewal, D. (2000). The impact of technology on the quality-value-loyalty chain: A research agenda. *Journal of the Academy of Marketing Science*, *28*(1), 168. <https://doi.org/10.1177/0092070300281015>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of retailing*, *64*(1), 12-40.
- Park, J., Amendah, E., Lee, Y., & Hyun, H. (2019). M-payment service: Interplay of perceived risk, benefit, and trust in service adoption. *Human Factors*, *29*(1), 31-43. <https://doi.org/10.1002/hfm.20750>
- Peña García, N. (2014). El valor percibido y la confianza como antecedentes de la intención de compra online: el caso colombiano. *Cuadernos de Administración, Universidad del Valle* *30*(51), 15-24. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-46452014000100003
- Pérez-Cabañero, C. (2007). Perceived risk on goods and service purchases. *Esic Market*, *129*, 183-199.
- Qiu, H., Ye, B. H., Bai, B., & Wang, W. H. (2015). Do the roles of switching barriers on customer loyalty vary for different types of hotels? *International Journal of Hospitality Management*, *46*, 89-98. <https://doi.org/10.1016/j.ijhm.2015.01.015>
- Rasheed, F. A., & Abadi, M. F. (2014). Impact of Service Quality, Trust and Perceived Value on Customer Loyalty in Malaysia Services Industries. *Procedia - Social and Behavioral Sciences*, *164*, 298-304. <https://doi.org/10.1016/j.sbspro.2014.11.080>
- Ryding, D. (2010). The impact of new technologies on customer satisfaction and business to business customer relationships: Evidence from the soft drinks industry. *Journal of Retailing and Consumer Services*, *17*(3), 224-228. <https://doi.org/10.1016/j.jretconser.2010.03.008>
- Schmitt, N., & Stults, D. M. (1985). FACTORS DEFINED BY NEGATIVELY KEYED ITEMS - THE RESULT OF CARELESS RESPONDENTS. *Applied Psychological*

- Measurement*, 9(4), 367-373. <https://doi.org/10.1177/014662168500900405>
- Sheehan, K. B., & Hoy, M. G. (2000). Dimensions of Privacy Concern among Online Consumers. *Journal of Public Policy & Marketing*, 19(1), 62-73. <https://doi.org/10.1509/jppm.19.1.62.16949>
- Shirin, A., & Puth, G. (2011). Customer satisfaction, brand trust and variety seeking as determinants of brand loyalty. *African Journal of Business Management*, 5(30), 11899-11915. <https://doi.org/10.5897/ajbm11.238>
- Singh, J., & Sirdeshmukh, D. (2000). Agency and Trust Mechanisms in Consumer Satisfaction and Loyalty Judgments. *Journal of the Academy of Marketing Science*, 28(1), 150-167. <https://doi.org/10.1177/0092070300281014>
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer Trust, Value, and Loyalty in Relational Exchanges. *66*(1), 15-37. <https://doi.org/10.1509/jmkg.66.1.15.18449>
- Solimun, S., & Fernandes, A. A. R. (2018). The mediation effect of customer satisfaction in the relationship between service quality, service orientation, and marketing mix strategy to customer loyalty. *Journal of Management Development*, 37(1), 76-87. <https://doi.org/10.1108/jmd-12-2016-0315>
- Solomon, M. R. (1983). The Role of Products as Social Stimuli: A Symbolic Interactionism Perspective. *Journal of Consumer Research*, 10(3), 319-329. <https://doi.org/10.1086/208971>
- Strenitzzerová, M., & Gaňa, J. (2018). Customer Satisfaction and Loyalty as a Part of Customer-Based Corporate Sustainability in the Sector of Mobile Communications Services. *Sustainability*, 10(5), 1657. <https://doi.org/10.3390/su10051657>
- Sultan, F., & Mooraj, H. A. (2001). Designing a trust-based e-business strategy. *Marketing Management*, 10(4), 40-45. <https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=bsu&AN=5829718&lang=pt-pt&site=ehost-live&scope=site>
- Sun, K.-A., & Kim, D.-Y. (2013). Does customer satisfaction increase firm performance? An application of American Customer Satisfaction Index (ACSI). *International Journal of Hospitality Management*, 35, 68-77. <https://doi.org/10.1016/j.ijhm.2013.05.008>
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of retailing*, 77(2), 203-220. [https://doi.org/10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0)
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*, 5th ed. Allyn &

Bacon/Pearson Education.

- Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48(6), 1273-1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Tam, J. L. M. (2012). Linking Perceived Service Quality to Relational Outcomes in a Chinese Context. *Journal of International Consumer Marketing*, 24(1-2), 7-23. <https://doi.org/10.1080/08961530.2012.650136>
- Taylor, J. W. (1974). The Role of Risk in Consumer Behavior: A comprehensive and operational theory of risk taking in consumer behavior. *Journal of Marketing*, 38(2), 54-60. <https://doi.org/10.1177/002224297403800211>
- Taylor, S. A., & Hunter, G. (2003). AN EXPLORATORY INVESTIGATION INTO THE ANTECEDENTS OF SATISFACTION, BRAND ATTITUDE, AND LOYALTY WITHIN THE (B2B) eCRM INDUSTRY. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 16, 19-35. <https://www.proquest.com/scholarly-journals/exploratory-investigation-into-antecedents/docview/204703428/se-2?accountid=12156>
- Thaichon, P., Lobo, A., Prentice, C., & Quach, T. N. (2014). The development of service quality dimensions for internet service providers: Retaining customers of different usage patterns. *Journal of Retailing and Consumer Services*, 21(6), 1047-1058. <https://doi.org/10.1016/j.jretconser.2014.06.006>
- Thaichon, P., & Quach, T. N. (2015). The relationship between service quality, satisfaction, trust, value, commitment and loyalty of Internet service providers' customers. *Journal of Global Scholars of Marketing Science*, 25(4), 295-313. <https://doi.org/10.1080/21639159.2015.1073419>
- Tung, L. L. (2004). Service Quality and Perceived Value's Impact on Satisfaction, Intention and Usage of Short Message Service (SMS). *Information Systems Frontiers*, 6(4), 353-368. <https://doi.org/10.1023/B:ISFI.0000046377.32617.3d>
- Turel, O., & Serenko, A. (2006). Satisfaction with mobile services in Canada: An empirical investigation. *Telecommunications Policy*, 30(5), 314-331. <https://doi.org/10.1016/j.telpol.2005.10.003>
- U.S. Department of Justice, & Fed. Trade Commission. (2010). *Horizontal Merger Guidelines*. Retrieved from <https://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf>

- Venetis, K. A., & Ghauri, P. N. (2004). Service quality and customer retention: building long-term relationships. *European Journal of Marketing*, 38(11/12), 1577-1598. <https://doi.org/10.1108/03090560410560254>
- Verhoef, P. C., Franses, P. H., & Hoekstra, J. C. (2002). The Effect of Relational Constructs on Customer Referrals and Number of Services Purchased from a Multiservice Provider: Does Age of Relationship Matter? *Journal of the Academy of Marketing Science*, 30(3), 202-216. <https://doi.org/10.1177/0092070302303002>
- Wachinger, G., Renn, O., Begg, C., & Kuhlicke, C. (2013). The Risk Perception Paradox - Implications for Governance and Communication of Natural Hazards. *Risk Analysis*, 33(6), 1049-1065. <https://doi.org/10.1111/j.1539-6924.2012.01942.x>
- Wali, A. F., & Nwokah, N. G. (2018). Understanding customers' expectations for delivering satisfactory and competitive services experience. *International Journal of Electronic Marketing and Retailing*, 9(3). <https://doi.org/10.1504/IJEMR.2018.092695>
- Wang, Y., Lo, H.-P., & Yang, Y. (2004). An Integrated Framework for Service Quality, Customer Value, Satisfaction: Evidence from China's Telecommunication Industry. *Information Systems Frontiers*, 6(4), 325-340. <https://doi.org/10.1023/B:ISFI.0000046375.72726.67>
- Westin, A. F. (1967). *Privacy and freedom*. Atheneum.
- Whittaker, G., Ledden, L., & Kalafatis, S. P. (2007). A re-examination of the relationship between value, satisfaction and intention in business services. *Journal of Services Marketing*, 21(5), 345-357. <https://doi.org/10.1108/08876040710773651>
- Yang, Z. L., & Peterson, R. T. (2004). Customer perceived value, satisfaction, and loyalty: The role of switching costs. *Psychology & Marketing*, 21(10), 799-822. <https://doi.org/10.1002/mar.20030>
- Zeithaml, V., & Bitner, M. J. (1996). *Services Marketing: Integrating customer focus across the firm*. McGraw-Hill.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22. <https://doi.org/10.2307/1251446>
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28(1), 67. <https://doi.org/10.1177/0092070300281007>
- Zhang, L., Tan, W., Xu, Y., & Tan, G. (2011). Dimensions of Perceived Risk and Their

Influence on Consumers' Purchasing Behavior in the Overall Process of B2C. In L. Zhang & C. Zhang, *Engineering Education and Management* Berlin, Heidelberg.

Zhou, T. (2013). An empirical examination of continuance intention of mobile payment services. *Decision Support Systems*, 54(2), 1085-1091.
<https://doi.org/10.1016/j.dss.2012.10.034>

Annex 1.

Lealdade e Proteção de Dados nas Telecomunicações

O presente questionário surge no âmbito de uma dissertação do Mestrado em Gestão da Faculdade de Economia da Universidade do Porto.

O seu principal objetivo é compreender os fatores que conduzem à lealdade dos clientes de telecomunicações em Portugal, bem como o impacto que a perceção de proteção de dados pode ter na mesma. A resposta ao questionário demorará entre 2 a 3 minutos.

Os resultados serão tratados exclusivamente em contexto académico.

Caso surja alguma dúvida referente ao presente questionário, ou à investigação no geral, encontramos-nos ao dispor para qualquer esclarecimento adicional:

up201705587@up.pt.

Grato, desde já, pela disponibilidade e cooperação,
José Torrão Pinheiro

Secção 1

Sou leal ao meu provedor de serviço.

Não vou trocar o meu provedor de serviço.

Se fosse começar de novo, escolheria o meu atual provedor de serviço novamente como o meu principal provedor de serviço.

No futuro, tenho intenções de adquirir produtos/contratos adicionais do mesmo provedor de serviço.

No global, estou satisfeito com o meu provedor de serviço.

O meu provedor de serviço cumpre sempre as minhas expectativas.

Sinto que o meu provedor de serviço me dá exatamente o que preciso.

Secção 2

O meu provedor de serviço tem uma excelente qualidade de serviço.

A cobertura/receção da rede é boa.

A velocidade de internet é rápida.

O meu provedor de serviço tem um ótimo atendimento ao cliente.

Obtenho uma boa relação qualidade/preço com o meu provedor de serviço.

As tarifas do meu provedor de serviço são justas. (Ex.: tarifário móvel ou pacote fibra)

O meu provedor de serviço tem bons preços e promoções quando comparado com os concorrentes.

Secção 3

Confio no meu provedor de serviço.

Sinto que posso contar com o meu provedor de serviço para me servir bem.

Confio no sistema de faturação.

Acredito que posso confiar que o meu provedor de serviço não irá tentar enganar-me.

O meu provedor de serviço é de confiança porque se preocupa principalmente com os interesses do cliente.

Manter as minhas informações pessoais e atividades de forma confidencial é uma grande prioridade para o meu provedor de serviço.

O meu provedor de serviço considera a informação sobre a minha vida pessoal um assunto estritamente privado.

Proteger a minha informação pessoal é uma das maiores prioridades do meu provedor de serviço.

No geral, o meu provedor de serviço tem uma forte necessidade de proteger a minha informação pessoal.

Secção 4

Género

Feminino

Masculino

Outro

Faixa etária

Entre 18 e 24 anos

Entre 25 e 34 anos

Entre 35 e 44 anos

Entre 45 e 54 anos

Entre 55 e 64 anos

65 ou mais anos

Habilitações literárias

Ensino Primário

Ensino Básico

Ensino Secundário

Licenciatura

Pós-graduação

Mestrado

Doutoramento

Outro

Disponibilidade de fibra ótica na sua área de residência

Sim, o meu atual provedor de serviço disponibiliza serviços com fibra ótica na minha área de residência

Sim, outro provedor de serviço que não o meu disponibiliza serviços com fibra ótica na minha área de residência

Não, nenhum provedor de serviço disponibiliza serviços com fibra ótica na minha área de residência

Situação profissional

Estudante

Principalmente trabalhador

Desempregado

Reformado

Outro

Número de membros do agregado familiar

1 Pessoa

2 Pessoas

3 Pessoas

4 Pessoas

5 ou mais Pessoas

Rendimento mensal líquido do agregado familiar

Até 750€

De mais de 750€ até 1.500€

De mais de 1.500€ até 2.250€

De mais de 2.250€ até 3.000€

Mais de 3.000€

Annex 2.

Communalities and Factor Loadings

Construct	Item	Communalities	Item-total correlation	EFA Loadings	CFA Loadings
Customer Loyalty	CL1	0,651	0,554	0,801	0,537
	CL2	0,780	0,656	0,876	0,675
	CL3	0,618	0,642	0,532	0,802
Customer Satisfaction	CS1	0,756	0,759	0,859	0,859
	CS2	0,796	0,776	0,886	0,885
	CS3	0,767	0,783	0,870	0,871
Trust	TR1	0,755	0,826	0,848	0,870
	TR2	0,817	0,858	0,874	0,909
	TR3	0,640	0,709	0,786	0,750
	TR4	0,748	0,727	0,849	0,775
Service Quality	SQ1	0,757	0,788	0,717	0,905
	SQ2	0,832	0,681	0,906	0,763
	SQ3	0,843	0,663	0,914	0,747
Perceived Value	PV1	0,746	0,737	0,856	0,887
	PV2	0,853	0,684	0,918	0,876
	PV3	0,693	0,698	0,823	0,830
Privacy Risk	PR1	0,758	0,738	0,859	0,866
	PR2	0,855	0,726	0,923	0,920
	PR3	0,907	0,725	0,952	0,946
	PR4	0,869	0,735	0,931	0,946