

A Work Project, presented as part of the requirements for the Award of a Master Degree in Management from the NOVA – School of Business and Economics

## HOW TO INCREASE LOYALTY RATE OF OFFICE LINK

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## **ABSTRACT**

Throughout times, the trading business has been evolving greatly and has had a rising tendency concerning competitiveness. This phenomenon has been quite highlighted by the emergence and the growth of the e-commerce. This study is focused on the electronic commerce, and its major goal is to understand which is the best company's differentiation strategy by identifying which are the main influence factors of the consumers choice that lead to a full customer satisfaction and loyalty. After the review of the literature, side by side with a survey and a data analysis, this study provides a theory that puts to light which are the principal factors that lead to an increase of loyalty.

Keywords: E-commerce; e-service quality; e-satisfaction; e-loyalty

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## **Chapter 1- The Company**

Office Link is an online national company operating since 2016. The company has got a vast portfolio (about 4000 references) of school and office supplies and works with the aim of presenting a website with a simple and appealing design that compares and suggests alternative products. One of the main concerns of Office Link is the security of the website and its transactions.

Office Link mission statement - 'supply office and school material, based on Simplicity and Speed of purchase, Competitive Prices and Excellent Customer Service' - makes it clear that the company aims to be a national reference in the purchase of office and school supplies for Professionals and Individuals.

### **1.1- STP Analysis**

#### **1.1.1- Segmentation and Target**

The market of Office Link can be divided in three segments: SME, micro-companies and private customers. The company has a very similar strategy for the first two groups because they value technical/specialized material. This strategy is based on actions such as telesales, relationship marketing campaigns and sectoral events. For the last group of clients - private customers- the company adopts a somewhat different strategy since this group of clients has as main interest the school material and crafts. For this type of costumers, Office Link bets on more public relations and campaigns such as "Back to school". (Appendix 1)

#### **1.1.2- Positioning**

Office Link differentiating attributes are the variety and specialization of the portfolio, speed of delivery (up to 48h), competitive prices and client service (par example online support via messenger or email, with a response up to 12 working days or

registration, purchase and payment processes supported with explanatory videos included in the FAQ). (Appendix 2)

## **1.2. Internship**

From September to December 2017, I had the opportunity to be part of Office Link and I developed marketing, strategy and sales supporting tasks such as:

- Designing and development of maps to monitoring the benchmark of prices and weekly updates of this maps to retain information about our position comparatively to other companies.
- Designing and development of maps to monitoring mailings and newsletters, sent and delivered, to understand which is the effectiveness rate of the measures taken.
- Development of marketing outputs as banners for the website, promotional videos and presentations, promotional flyers, newsletters and promotional coupons.
- Assessment of marketing campaigns of the competition campaigns on the online channels and of the Office Link's strongest marketing campaigns
- PHC platform: designing and categorization of products and launching of promotional campaigns
- Google's course of digital marketing digital
- Google Analytics and Google Ads' reports analysis

During the accomplishment of these tasks it was possible to conclude that the company was very competitive in terms of prices and marketing. However, it has become a challenge to understand what should be the main focus of marketing campaigns and what features of website should be developed in order to increase the company's profitability, number of clients and repurchase rate.

## Chapter 2- Theoretical Background

### 2.1- E-commerce

The emergence and growth of electronic commerce is a phenomenon that has been changing drastically the competitiveness of the sales process and marketing.

Comparatively to traditional commerce, electronic commerce presents a set of distinctive features that allowed its imposing and exponential growth (Zvonko Kremljak, 2016):

- Ubiquity: at EC it is possible to purchase at any time and any place, without having to invest time or money travelling to carry out the purchase.
- Global reach: this EC's feature withdraws any national or cultural boundaries restrictions. With the emergence of EC, any website is available to sell its products in any part of the world. This way, it is easier for the customers to find the most suitable product for their needs and for the best price, and retailers have a broader market to sell their products.
- Interactivity: on this field it has been designed the possibility of communication between the customer and the retailer, therefore it becomes easier for the company to captivate the customers' interest.
- Wealth of information: with e-commerce it becomes possible to pass messages in multiple multimedia formats (audio, video or text) combined in one single marketing message. This improvement allowed a growth of both quantity and quality of information. As the customer can have access to a detailed information about different retailers' products and compare them, the retailer has access to further information of the customer, which allows a better product and price customization, as well as an improvement of the service.

- Customization: with new technology and phenomenon like the one described above, it is possible that the product/service is now customer oriented, based on each one preferences.

However, there are some restrictions that can be identified concerning e-commerce. One of them is that the customer is not able to try the product before buying it.

With all these changes, customers had to adapt, and they started to compare prices and product and services quality. So, companies also had to adapt to become more competitive on the market. Comparing prices has become so easy that made them more homogeneous between companies, and therefore, to make a difference, companies had to offer a more customized product and a high-quality service and a very flexible procedure of exchange and return.

## **2.2- Consumer Satisfaction**

Satisfaction is a key success factor in the long run for companies because it generates purchases and it helps promoting the business based on WOM (Chang & Wang, 2011). These characteristics become crucial not only for the company's profit and economic stability, but also for the customers' well-being. (Oliver, 2014)

There are several ways of defining the customers' satisfaction. According to Kanning & Bergman (2009), satisfaction emerges from the difference between the customers' expectations and its perception of the product performance (disconfirmation paradigm theory). A customer creates expectations concerning certain product based on previous experiences, WOM, brand image, and the relation between expectations towards the product and its real value perceived generates a level of satisfaction. If the performance of the product does not meet the customer's expectations, then the customer is not satisfied. If the performance meets the customer's expectations, then the customer is

satisfied. If the performance exceeds the level of expectation, then the client is highly satisfied.

According to Parasuraman, Zeithaml e Berry (1988) satisfaction is related to a specific transaction, that is, the customer only makes his/her assessment of the product/service after the purchase is done. On the other hand, authors such as Vilares & Coelho (2005) argue that satisfaction is based on cumulative sum of satisfaction with specific transactions performed at different times of time.

One can, therefore, claim that the satisfaction of the customers is an assessment of the value and quality made by them after the purchase of a product/service.

### **2.3- Loyalty**

Loyalty according to Oliver (2014, page 434) is *"Deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, while overcoming obstacles is analogous to rebuying despite situational influences and marketing efforts having the potential to cause switching behavior"*

There is a common ground on this area of studies: the customer satisfaction is a decisive factor on loyalty. Therefore, keeping customers happy becomes a competitive advantage when facing other retailers. According to the studies carried out by George Christodoulides & Nina Michaelidou (2011), loyal customers are the main profitable source of online business, because, according to Zhen and Jiang (2012) loyalty allows companies:

- Profit increase- loyal customers are willing to pay more for the product/service of the company they are loyal to.
- Marketing costs decrease- the maintenance costs of a company are practically zero when compared to the marketing costs that are necessary to gain and manage a new customer.



- Improving the company's image – loyal customers promote and recommend the company's products and services to potential clients.
- Strengthening of the company's market position- loyal clients do not search alternative companies to buy their products.

McMullan & Gilmore (2008) point out that different levels of customer loyalty require different strategies, so it is important to identify the level of customer loyalty.

#### **2.4- E-quality of service**

As earlier observed, with the emergence of the online commerce, it became crucial to the differentiation of companies to offer a higher quality service to fight its competitors. Consequently, the retailers not only must focus on simplify the purchase, but they must ensure that their delivery service are efficient. To offer a great service quality, companies must understand which are the factors that online customers value the most. There are several studies whose aims are the assessment of the service quality of a website as a way of helping companies differentiate and concentrate on the key features their costumers value the most.

#### **2.5- Service Quality Dimensions scales**

As stated above, the service quality is being recognised as more and more important on online purchases. Following that an assessment of several models developed throughout the years will be made to evaluate the websites service quality, so that we can find out which features adapts better to Office Link's reality. In this way, the company can concentrate its available resources to improve its website.

##### **2.5.1- SERVQUAL**

The searching engine SERVQUAL, launched in 1988, was a key instrument on the company's development. This theory has begun with 10 dimensions. After analysis

and after an enhancement, it presents a new range, with only 5 dimensions: three originals and two new, combined:

- Tangible: Physical facilities, equipment and workers aspect;
- Reliability: Providing the promised service in a reliable and accurate way.
- Responsiveness: Being available to help the customers and to provide a quick service.
- Assurance: Knowledge and politeness of the employees and its ability to inspire confidence.
- Empathy: Personalized attention.

In this case, although having only 5 dimensions, the first 10 dimensions defined by the customer as critical are included on the model. Although it had already been tested and having high levels of liability and validity, it will not be the best option for this study. This scale has been developed specifically for traditional commerce and it will not include several determinant factors that are not present in this commerce and that are highly relevant for online commerce such as the delivery's deadlines.

### ***2.5.2- E-S-QUAL***

As above described, the SERVQUAL scale, despite its proven validity and efficiency, is not a sustainable scale to assess the online service quality and therefore Parasuraman et al (2005) has developed a new scale based on the SERVQUAL, but whose main purpose is exclusively to be used in electronic commerce. In this model, developed by Parasuraman et al (2005), there are two scales: "E-S-QUAL" and "E-RecS-QUAL". The main goal of the first one is to measure service quality, whereas the second one is focused on "non-routine encounters" to understand feedback, compensation and assistance problems. Throughout the study, the focus will be mostly on the first one scale for this is a scale that embraces the general domain of the e-SQ and has the ability of embracing the different periods of the customer's interactions with the website. This scale

also started with a higher number of dimensions and was reduced to 4 dimensions with 22 items:

- Efficiency: Access speed and simply handling of the website.
- Fulfilment: Fulfilment of the delivery deadlines.
- System Availability: Proper technical function of the website.
- Privacy: Security of the website and protection of the customers personal information.

### **2.5.3- WEBQUAL**

WebQual is the name of two different theories. The first one developed by Loiacono, Watson and Goodhue (2000), has as focus to assess issues that are important for the website designers but that does not concern the quality of the service and for that reason it is not a suitable theory for this assessment. The second study was elaborated by Barnes and Vidgen (2002), who gathered a sample of university students that have been directed to three different bookshops websites to perform the three tasks for the study. After completing the tasks, the participants had to assess their experience taking into consideration the scale of the five items of the website quality: usability, design, information, trust, and empathy. However, the main goal of this central model is to assess the website transactions and not to measure the service quality. The participants did not have to conclude the purchase process and that was an obstruction on the choice of this scale as it does not present a full assessment of the quality of the service.

### **2.5.4- SITEQUAL**

SiteQual is a scale developed by Yoo e Donthu (2001) and it presents 9 items to measure the website quality on 4 dimensions: ease of use, aesthetic design, processing speed, and security.

Similarly to the WebQual of Barnes and Vidgen (2002), the data to develop the scale has come from a sample of students who have visited, interacted and assessed 3 websites of online commerce, and the scale does not captures all the features of the purchase process because it is not finalized. Therefore, this scale is also limited concerning this assessment.

#### ***2.5.5- ETAILQ***

The goal of Wolfinbarger and Gilly (2003) was to create a scale that assesses the customers understanding towards the quality of the e-tailing, and for that they used focus groups, both online as offline, that originated a scale of 14 items and 4 dimensions:

- Website design (concerns the website attributes and product customization)
- Reliability/Fulfilment (product accurate representation, on-time delivery, fulfilment of commitments)
- Privacy/ Security (safety and trust on the website)
- Customer service (quick answers, client assistance)

This scale has several issues. Although it has two valid and quite specific dimensions (security/privacy and reliability/fulfilment), the other two are not distinctive and defined. Furthermore, these dimensions, as well as other items that can be relevant for the customers assessment of the online service quality, are not completely considered yet, as they have to be tested in more detail.

#### ***2.5.6- Definition of Scale***

After the analysis of several models used to measure the service quality of online sales websites, one can conclude that the E-S-Qual scale is the most complete and that best suits the final purpose. Although the remaining models provide relevant information for assessment, they have also raised some issues that indicate that further research is needed. This model has been used successfully in over 11 countries in several electronic services. From all the earlier scales that have been studied, the E-S-

Qual is the one that, presents a broader set of factors considered critical on the great majority of the studies (Appendix 3) (each factor analysed by this model is part of, at least, one of the other models, which shows their consistency). Based on the previous review of the literature, the four existing criteria on this model were considered of high relevance for the understanding of online service quality.

## **2.6- Satisfaction and loyalty Dimensions scales**

In order to measure customer satisfaction and loyalty, was used the scale chosen before of Parasuraman et al (2005). After pre-test realized with 15 people, some changes were made in the questions of the scale to better adapt to Office Link reality.

## **Chapter 3- Methodology**

### **3.1- Overall goal**

The main goal of this study is to assess which are the main factors that Office Link should focus to increase the loyalty of their customers.

### **3.2- Specific goals**

**1<sup>st</sup> Goal:** analyse the causal relationship of quality of service comparatively to customers satisfaction in online purchases in Portugal.

**2<sup>nd</sup> Goal:** analyse the causal relationship of satisfaction comparatively to customers loyalty in online purchases in Portugal.

**3<sup>rd</sup> Goal:** identify which are the main factors that influence service quality in online purchases in Portugal.

**4<sup>th</sup> Goal:** assess how satisfaction is affected by sociodemographic characteristics in online purchases in Portugal.

**5<sup>th</sup> Goal:** assess how loyalty is affected by sociodemographic characteristics in online purchases in Portugal.

Although there are several investigations with similar objectives, studies based on the Portuguese customers behavior are less frequent.

### **3.3- Investigation's specific hypotheses**

According to Alireza et al (2011), quality of service and consumer satisfaction are strongly related. This relation has already been studied by large group of authors, even though there are some difference of opinions concerning the relation between these variables. Studies performed by Arbore & Busacca (2011), state that there is no asymmetric relationship between quality of service and satisfaction. So, it is not possible to state that positive assessments in some service quality dimensions have the same impact as a negative assessment in other dimensions. On other hand, according to Ha et al, (2009), a higher quality service has a correlation with a higher customer's satisfaction. Following the same theory Vilares & Coelho (2005) mention a "Quality Payback" and state that improving the quality improves satisfaction and loyalty.

Therefore, the first hypothesis is defined:

**1<sup>st</sup> Hypothesis:** Quality of service is positively related to satisfaction.

There are several studies on this relation between the variables satisfaction and loyalty and conclusions are not always the same. However, although it is not a simple task to establish a relation between the variables, it is a mistake to think that there is not any type of relation between them (Mittal & Kamakura, 2001). There are theories that defend that there is not any type of consistence on the variables relation, as in Reichheld (2003). Moreover, there is a broad set of studies that identified and empirically validate satisfaction as a determinant factor of loyalty. One can state, according to Rodriguez and Luque (2009), that customers satisfaction is the variable of more importance and that it is the one which more influence the costumers. Johnson, Garbarino & Sivadas (2006) state that loyalty has a positive effect on customer satisfaction and not otherwise, and that is how the second hypothesis appears:

**2<sup>nd</sup> Hypothesis:** Satisfaction is positively related to loyalty.

Based on the review of the literature early discusses comes the third hypothesis:

**3<sup>rd</sup> Hypothesis:** Service quality is defined by the 4 factors of the chosen model.

Sorce et al. (2004) explains that online consumers behaviour is influenced by sociodemographic factors. According to Stafford et al (2004) currently exists a higher percentage of male gender online consumers buying online due to factors as the male gender has a bigger interest on the convenience and ease of the purchase and does not value the social interaction (Swaminathan et al., 1999). Males shows a higher interest in electronic products, whereas the female gender has a bigger interest on food or clothes (Slyke et al., 2002). The female gender has a greater need of interact with the product before purchasing it (Citrin et al., 2003). From this point the following emerge:

**4<sup>th</sup> Hypothesis:** The level of satisfaction and loyalty diverges with the gender of the costumer.

There are several studies claiming that there is a direct relation between consumers' age and the will of purchasing online. Stafford et al. (2004) states that there is a positive correlation, whereas Joines et al. (2003) claims the contrary. From this disagreement the following emerge:

**5<sup>th</sup> Hypothesis:** The level of satisfaction and loyalty diverges with customer's age.

There are different theories concerning the customer's schooling degree. Susskind (2004) claims that there is a positive correlation between the customer's schooling and the amount of time and money spent online, whereas Bagchi & Mahmood (2004) reveal that there is not any type of relation between the variables. From these theories the following emerge:

**6<sup>th</sup> Hypothesis:** The level of satisfaction and loyalty diverges with customer's education.

After formulation of the various hypotheses was created a layout of the investigation model to be tested. (Appendix 4)

### **3.4- Research and data collection**

There are three different types of research methodology: exploratory, descriptive and causal (Malhotra, 2004). The most suitable for this investigation, regarding its goals and hypotheses, is the descriptive one because one will test the already described hypotheses with the main goal of understanding and interpret a given reality. It is not one's goal to alter or explain certain phenomenon.

For the study, an online survey was elaborated to obtain data for future analysis. The study's conclusions can be defined as quantitative because the survey includes different features such as the consumer gender, age or schooling and it allows us to gather data which can be used for statistical analysis and to discover variable tendencies.

### **3.5- Survey structure and its relationship with hypotheses**

The survey includes questions concerning service quality variables, satisfaction and loyalty on online sales, with a total of 31 questions. Structurally, the survey is divided in three parts:

- Introduction: the main goal is to obtain the participation of the interviewed;
- Main body: in which there are three different steps. On the first step the respondent's opinion about service quality is asked; The step two main goal is to assess the customer's satisfaction; The last step concerns customer's loyalty.
- Conclusion: survey respondents' gender, age and schooling are identified.

Firstly, a pre-test was made to a sample of 15 participants chosen randomly with the aim of testing and adjusting the survey. Throughout the survey different scales have been used accordingly with the goals of the investigation. On the first and last steps nominal, verbal and ordinal verbal scales were used. On the main body, 5 items Likert's scale was used for this is a reliable scale, and has already proof its worth in other studies. With this



scale one can have 5 degrees of agreement: from minimum agreement - 1 (totally disagree); and maximum agreement - 5 (completely agree).

Concerning the study's variables occurring in the second step, there are different measurement scales:

- **Service quality:** this scale is based on the one used to design E-S-QUAL model, described above, which demonstrates a highly explanatory ability. In this model, 4 dimensions can be identified: efficiency, system availability, fulfilment e privacy.
- **Satisfaction and Loyalty:** the scale used for these variables is based on the one used on E-S-Qual model but with some adjustments, which were made based on the pre-test reviews and analysis.

## **Chapter 4- Analysis and Conclusions**

### **4.1- Data analysis method**

For data handling and assessment and help with the statistic analysis, IBM SPSS (version 25) programme was used. The main goal of this analysis is to confirm, or not, the assumptions or hypotheses made throughout the study. Descriptive statistics, reliability analysis (Cronbach's Alpha), exploratory factorial analysis, *t* test for means comparison and linear regressions were some of the techniques used.

### **4.2- Sample**

Since it is impossible to apply the questionnaire to the entire population, it is necessary to select a sample. The selected sample of this study can be defined as non-probability sample because their elements are not chosen randomly, but for its convenience. This technique presents highly levels of efficiency because the hypotheses that are being tested have already been confirmed in the literature.

The applied methodology has a descriptive character which has been used in as non-probability sample comprising 200 elements that have done online purchases. The gathering process lasted 5 days.

#### ***4.2.1- Sociodemographic description of the sample***

The sample is quite distributed concerning gender (57,7% were females and 42,3% were males). Concerning age, the sample had a low amplitude, most of the sample is between 18-24 years old (51,7% - 104 answers) followed by 32 answers (15,9%) between 35-44 years. Regarding education, most of the sample has a college education (58,2%) and (40,3%) has a secondary education. Concerning the selected area of business 48,8% of the sample chose essentially Turism/Travel/Reservation and Clothing websites to answer the survey. (Appendix 5)

### **4.3- Descriptive statistics and scale reliability**

#### ***4.3.1- Service Quality***

In assessing the average and variance of the items, one can verify that most part of the average values are higher than 4, and those which are not 4 are very close, which shows an irregularity on the answers given. Therefore, one can state that most of the sample agrees with the statements and answered mostly with “agree” or “completely agree” to the said statements.

Regarding the quality of the service, customers consider that online services used have a high quality. In this analysis we can also evaluate that the questions related with ‘efficiency’ are the ones with best average values (none less than 4). In this way we can realize that within the quality of service, this is the area of electronic commerce that presents itself more developed. Concerning the internal consistency of the service quality scale, it can be stated that there is considered high (Pestana & Gageiro, 2008) for it presents a 0,949 Cronbach’s Alpha. (Appendix 6)

#### ***4.3.2- Satisfaction***

In this case, it can be stated that the average value is higher than the central value of the scale, so one can conclude that, in an overall manner, consumers are satisfied with the websites they use for online purchase. The Cronbach's Alpha value is 0,829, which reveals a good internal consistence (Pestana & Gageiro, 2008). (Appendix 7)

#### ***4.3.3- Loyalty***

After analysing the customer's loyalty scale, it can be shown that, as in earlier assessments, there is a left asymmetrical distribution as all the average values are equal or higher than 4, so one can conclude that, there is a high tendency of the consumers to become loyal to the sites they use. The Cronbach's Alpha on this scale is 0,889, which reveals a good consistence (Pestana & Gageiro, 2008). (Appendix 8)

### **4.4- Exploratory factorial analysis**

This analysis' main goal is to simplify relations between variables. For this purpose, an association of common factor which create apparently independent variable links is done.

#### ***4.4.1- Service Quality***

Here stand the E-S-Qual scale analysis results, which primarily presents 4 factors: Efficiency, Fulfilment, System Availability, Privacy.

Through the analysis of KMO test and Bartlett test (Appendix 9), it can be stated that this method is suitable for the data handling:

- KMO value is higher than the minimum value (0,5) showing that the sample dimension is suitable for the indicators.
- Bartlett's test of sphericity: allows to verify significant correlations between the variables. Judging the level of significance (less than 0,05), one can claim that the variables used do present a correlation with each other.

After assessment of the common factors, it can be verified that there is no value under 0,5, thus one can claim that all of them are explanatory and for that reason all of them were used in the next exploratory factorial analysis. (Appendix 10)

The result of the cumulated variance in this analysis is 68,8%, which means that the 4 factors found on this analysis are approximately 69% of the total variance. To extract the factors of the main components, Varimax rotation method was chosen, whose results maintain the same number of factors, however they are reorganized. (Appendix 11)

On this new set of factors that influence the quality of service, it can be verified that factor 1 comprises all the efficiency items and it presents itself as a factor related with the ease and speed of the website use. Here we add the item 'This site is always available' because the website full availability is related to the ease of use.

Factor 2 concerns mostly the technical function of the website and comprises the item 'Stocks information is always reliable'. Because it has a good technical function, it can guarantee that the information given to the customer are reliable and accurate and for that it can perfectly match with this factor.

Factor 3 concerns only the fulfilment of the offers and delivery deadlines.

The last factor, factor 4, comprises issues related with privacy and security degree. Here a new item is inserted: 'Information about campaigns and promotions is always true'. This new item is directly related with consumers reliability towards the website and for that reason this becomes a crucial item.

Through the Cronbach' Alpha, one can assess the internal consistence of the items (Pestana & Gageiro, 2008): fator 1 very good (0,922), fator 2 good (0,849), fator 3 good (0,888) and fator 4 good (0,840). Between the several analysed models concerning service quality, it can be verified that our results presented the same number of factors with a very similar composition, although they do not match entirely the E-S-Qual scale.

#### ***4.4.2- Satisfaction and Loyalty***

An exploratory factorial analysis for these variables has been made and it can be concluded that each one of them is represented by a factor, as defined in the original scale, which is going to be used to further analysis.

#### **4.5- Relations between factors**

##### ***4.5.1-Service Quality and Satisfaction***

On this first multiple linear regression analysis, the satisfaction factor is a dependent variable, whereas in the exploratory factorial analysis the independent variables are the quality service factors. These factors are approximately 53% and one can also verify (Appendix 12 and 13) that they present a significant contribution on the satisfaction variable. When the analysing the coefficients, one can confirm they all are positive, thus one can state that there is a positive correlation between the quality service factors and the satisfaction factor.

##### ***4.5.2- Satisfaction and Loyalty***

The second regression analysed had as variable the dependent factor of loyalty, whereas the independent factor was satisfaction. The satisfaction factor represents only 45% of the loyalty factor. (Appendix 14 and 15) Its significance, which is less than 0,05, and the correlation coefficient is greater than zero, allow us to confirm that satisfaction is corelated with the loyalty factor.

#### **4.6- Sociodemographic impact in satisfaction and Loyalty**

This analysis purpose is to compare average values of a variable between independent groups.

##### ***4.6.1- Satisfaction, Loyalty and Gender***

With this analysis it can be verified that the level of significance, higher than 0,05, does not allow us to reject the null hypothesis. Therefore, it cannot be stated that gender

has interference on customer satisfaction. (Appendix 16) When assessing the interpretation of loyalty concerning gender, one does not have a value that permits us to reject the null hypothesis, so one can state that loyalty is not influenced by customer's gender. (Appendix 17)

#### ***4.6.2- Satisfaction, Loyalty and Age***

As verified in the earlier analysis, the high level of significance allows us to state that age does not have also impact on customer satisfaction. (Appendix 18) Such as in previous analysis, the level of significance on this item is not also very high, so it is possible to state that the interpretation of loyalty is not influenced by age. (Appendix 19)

#### ***4.6.3- Satisfaction, Loyalty and education degree***

On this analysis it can be verified that education has interference with one of the assessed items of satisfaction. Because the last factor presents some level of significance (less than 0,05) it is possible to turn down the null hypothesis. (Appendix 20) With the Post Hoc testes one can observe the significant difference between the customers with a higher education assessment and the secondary education customers assessment of the 'I consider buying products/services online is a good idea' statement. In this analysis we can affirm that, consumers with a degree are generally more satisfied with online purchases than consumers with secondary education.

When the analysis is focused on the education degree, one can state that loyalty is affected because there is a certain level of significance that is enough to reject the null hypothesis in two attributes of this variable. (Appendix 21) Through Post Hoc analysis, it can be verified that in the 'When doing an online purchase, this website is my first choice' and 'In the future, I intend of using this website again' statements answers there are significant differences between the two. Higher educated customers tend to be more loyal.

#### 4.7- Results and conclusion

<b>1<sup>st</sup> Hypothesis:</b> Quality of service is positively related to satisfaction.	<b>Validated</b>
<b>2<sup>nd</sup> Hypothesis:</b> Satisfaction is positively related to loyalty	<b>Validated</b>
<b>3<sup>rd</sup> Hypothesis:</b> Service quality is defined by the 4 factors of the chosen model	<b>Non Validated</b>
<b>4<sup>th</sup> Hypothesis:</b> The level of satisfaction and loyalty diverges with the gender of the consumer	<b>Non Validated</b>
<b>5<sup>th</sup> Hypothesis:</b> The level of satisfaction and loyalty diverges with customer's age.	<b>Non Validated</b>
<b>6<sup>th</sup> Hypothesis:</b> The level of satisfaction and loyalty diverges with customer's education.	<b>Validated</b>

Table 1- Hypothesis tests

The investigation's overall defining the factors where the company must focus in order to increase customer loyalty, goal was achieved. Regarding first goal, we can affirm that the quality of service is positively related to customer satisfaction. Analyzing Office Link reality, I suggest that company should have more focus on 'fulfillment' area. Knowing that sometimes company have problems in tasks as delivery times, correct shipping of the ordered products and total availability of products available on the site, an improvement in these processes will lead to an increase of customer satisfaction.

The second hypothesis was validated as foreseen in the literature review. Satisfaction is positively corelated with loyalty. In this way, becomes crucial having a very satisfied consumer in order to achieve the main goal. When analyzing the responses to the questionnaire, was verified that aspects related with speed and ease of use of the site leads to a higher satisfaction level. Evaluating the specific case of Office Link, the website already has high speed and an intuitive navigation. I suggest some improvements in terms of privacy, as show to customers that Office Link care, concern and protect their personal information to differentiate themselves from the competition.

When analyzing the impact of sociodemographic characteristics on consumer satisfaction and loyalty, it was possible to understand that educational level is the only one that has impact on variables. In this way, I suggest that the company does not make any

differentiation between gender and age on their marketing campaigns, but focus on the clients with a higher level of education since these are the ones that present a greater level of satisfaction and loyalty.

Still related to the sociodemographic characteristics, in terms of arrangement of website, the company never makes a product differentiation based on gender or age, and so it must continue, but to meet consumers with higher level of schooling, it should improve the description of its products for example.

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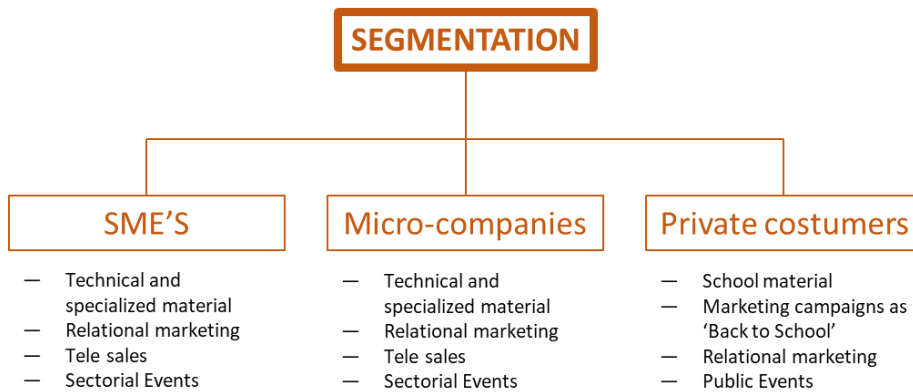
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# APPENDIX

## Appendix 1- Office Link Segmentation



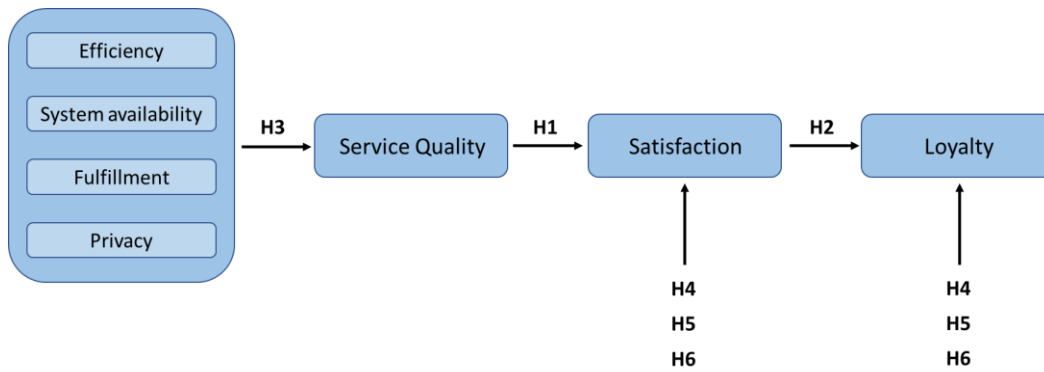
## Appendix 2- Office Link Positioning



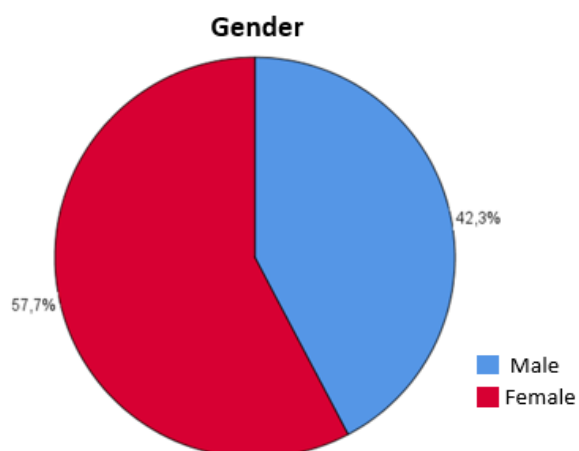
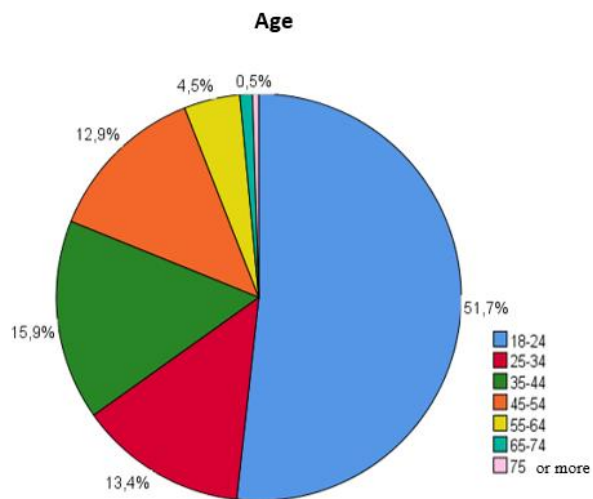
## Appendix 3 – Scale Dimensions

	E-S-Qual	WebQual	SiteQual	EtailQ
Design		X	X	X
Efficiency/ Usability	X	X	X	
System Availability	X		X	
Privacy/ Security	X	X	X	X
Fulfilment	X			X
Empathy		X		
Information		X		
Customer service				X

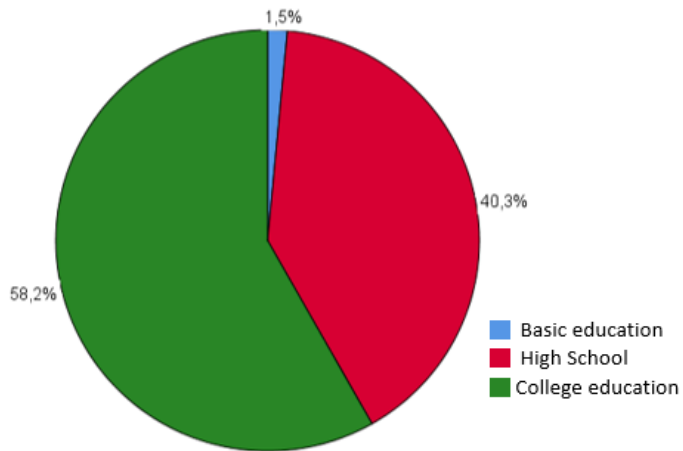
## Appendix 4- Research Model



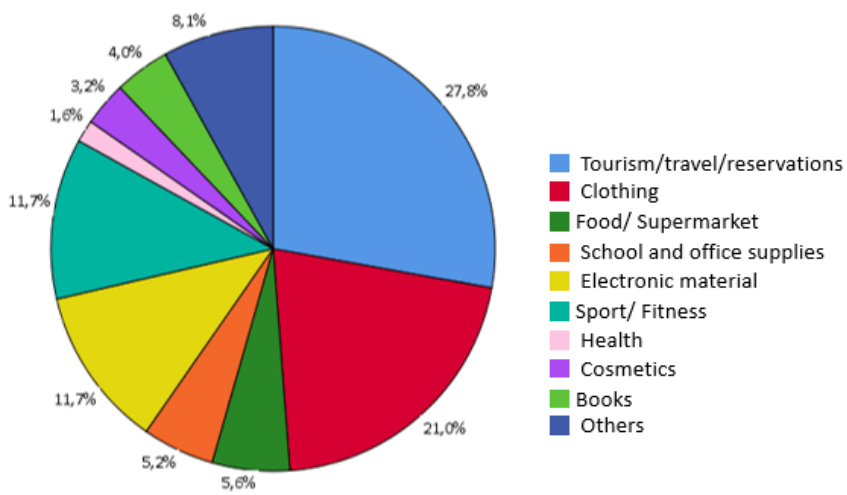
## Appendix 5- Sample Sociodemographic Characterization



### Education



### Business area



Appendix 6- Descriptive Statistics about quality of service

	N		Average	Variance
	Valid	Omission		
Efficiency_1	201	47	4,09	,532
Efficiency_2	201	47	4,13	,517
Efficiency_3	200	48	4,12	,494
Efficiency_4	201	47	4,08	,544
Efficiency_5	201	47	3,96	,713
Efficiency_6	201	47	4,16	,608
Efficiency_7	200	48	4,23	,617
Efficiency_8	200	48	4,13	,586
SA1	200	48	4,10	,643
SA2	200	48	4,01	,678
SA3	200	48	<b>3,80</b>	<b>,787</b>
SA4	200	48	3,93	,879
Fulfillment_1	200	48	4,06	,730
Fulfillment_2	200	48	4,02	,718
Fulfillment_3	200	48	3,93	,813
Fulfillment_4	200	48	4,01	,693
Fulfillment_5	200	48	<b>3,79</b>	<b>,672</b>
Fulfillment_6	200	48	3,99	,703
Fulfillment_7	200	48	3,89	,776
Privacy_1	200	48	3,97	,657
Privacy_2	200	48	<b>3,76</b>	<b>,819</b>
Privacy_3	200	48	3,99	,623

Appendix 7- Descriptive Statistics about satisfaction

	N		Average	Variance
	Valid	Omission		
SAT_1	201	47	<b>4,18</b>	,591
SAT_2	200	48	<b>4,21</b>	,566
SAT_3	200	48	<b>4,21</b>	,599

Appendix 8- Descriptive Statistics about loyalty

	N		Average	Variance
	Valid	Omission		
FID_1	201	47	<b>4,00</b>	,875
FID_2	200	48	<b>4,16</b>	,946
FID_3	200	48	<b>4,12</b>	,916

## Appendix 9- KMO Test and Barlett

Kaiser-Meyer-Olkin		<b>,936</b>
Bartlett sphericity test	Approx. Chi-square	2971,336
	gl	231
	Sig.	<b>,000</b>

## Appendix 10- Total Variance Explained

Total variance explained									
Component	Initial eigenvalues			Square load extraction summations			Square rotation rotations		
	Total	% of variance	% cumulative	Total	% of variance	% cumulative	Total	% of variance	% cumulative
1	<b>10,790</b>	49,044	49,044	10,790	49,044	49,044	5,303	<b>24,102</b>	24,102
2	<b>1,863</b>	8,467	57,511	1,863	8,467	57,511	4,151	<b>18,868</b>	42,971
3	<b>1,359</b>	6,178	63,689	1,359	6,178	63,689	2,910	<b>13,229</b>	56,199
4	<b>1,124</b>	5,107	<b>68,796</b>	1,124	5,107	68,796	2,771	<b>12,597</b>	<b>68,796</b>
5	,725	3,295	72,091						
6	,677	3,075	75,166						
7	,571	2,597	77,763						
8	,516	2,347	80,110						
9	,508	2,309	82,418						
10	,458	2,083	84,502						
11	,422	1,919	86,420						
12	,364	1,654	88,074						
13	,359	1,633	89,707						
14	,338	1,538	91,245						
15	,336	1,527	92,772						
16	,305	1,385	94,157						
17	,270	1,227	95,384						
18	,263	1,195	96,579						
19	,202	,919	97,498						
20	,199	,904	98,402						
21	,190	,864	99,266						
22	,161	,734	100,000						

Appendix 11-Rotary component matrix

	1	2	3	4
Efficiency_1	,664	,354	,033	,203
Efficiency_2	,700	,291	,224	,240
Efficiency_3	,660	,252	,136	,337
Efficiency_4	,707	,242	,138	,187
Efficiency_5	,611	,049	,480	,205
Efficiency_6	,765	,252	,193	,196
Efficiency_7	,782	,125	,181	,120
Efficiency_8	,665	,261	,334	,231
SA1	,614	,178	,387	,122
SA2	,526	,089	,660	,142
SA3	,256	,255	,768	,127
SA4	,201	,283	,799	,072
fulfillment_1	,258	,787	,191	,044
fulfillment_2	,173	,756	,154	,162
fulfillment_3	,294	,801	,079	,161
fulfillment_4	,153	,743	,234	,205
fulfillment_5	,201	,499	,501	,415
fulfillment_6	,166	,487	,392	,500
fulfillment_7	,299	,684	,154	,257
Privacy_1	,384	,304	,163	,709
Privacy_2	,186	,169	,088	,823
Privacy_3	,344	,162	,105	,745

Appendix 12- Linear regression- quality of service and satisfaction (dependent variable)

Model	R	R squared	R squared set	Default estimation error
1	,739 <sup>a</sup>	,546	<b>,536</b>	,68097537

Appendix 13- Coefficient of dependent variable (satisfaction)

Model		Standardized coefficients		Standardized coefficients	t	Sig.
		B	Error	Beta		
1	(Constant)	6,156E-17	,048		,000	1,000
	Fator 1_QS	<b>,426</b>	,048	,426	8,831	<b>,000</b>
	Fator 2_QS	<b>,457</b>	,048	,457	9,471	<b>,000</b>
	Fator 3_QS	<b>,257</b>	,048	,257	5,332	<b>,000</b>
	Fator 4_QS	<b>,298</b>	,048	,298	6,167	<b>,000</b>

Appendix 14- Linear regression- satisfaction and loyalty (dependent variable)

Model	R	R squared	R squared set	Default estimation error
1	,673 <sup>a</sup>	,453	<b>,450</b>	,74169286

Appendix 15- Coefficient of dependent variable (loyalty)

Model		Standardized coefficients		Standardized coefficients	t	Sig.
		B	Error	Beta		
1	(Constant)	-3,370E-16	,052		,000	1,000
	Fator_SAT	<b>,673</b>	,053	,673	12,796	<b>,000</b>

Appendix 16- ANOVA -Satisfaction and Gender

ANOVA						
		Sum of Squares	df	Medium Square	Z	Sig.
SAT_1	Between Groups	,901	1	,901	1,528	<b>,218</b>
	In groups	117,288	199	,589		
	Total	118,189	200			
SAT_2	Between Groups	,001	1	,001	,002	<b>,967</b>
	In groups	112,594	198	,569		
	Total	112,595	199			
SAT_3	Between Groups	,390	1	,390	,650	<b>,421</b>
	In groups	118,790	198	,600		
	Total	119,180	199			

Appendix 17- ANOVA -Loyalty and Gender

ANOVA						
		Sum of Squares	df	Medium Square	Z	Sig.
FID_1	Between Groups	1,870	1	1,870	2,149	<b>,144</b>



	In groups	173,125	199	,870		
	Total	174,995	200			
FID_2	Between Groups	2,061	1	2,061	2,192	,140
	In groups	186,134	198	,940		
	Total	188,195	199			
FID_3	Between Groups	2,332	1	2,332	2,565	,111
	In groups	180,023	198	,909		
	Total	182,355	199			

Appendix 18- ANOVA - *Satisfaction and Age*

ANOVA						
		Sum of Squares	df	Medium Square	Z	Sig.
SAT_1	Between Groups	1,104	6	,184	,305	,934
	In groups	117,085	194	,604		
	Total	118,189	200			
SAT_2	Between Groups	,895	6	,149	,258	,956
	In groups	111,700	193	,579		
	Total	112,595	199			
SAT_3	Between Groups	2,911	6	,485	,805	,567
	In groups	116,269	193	,602		
	Total	119,180	199			

Appendix 19- ANOVA - *Loyalty and Age*

ANOVA						
		Sum of Squares	df	Medium Square	Z	Sig.
FID_1	Between Groups	3,097	6	,516	,583	,744
	In groups	171,898	194	,886		
	Total	174,995	200			
FID_2	Between Groups	2,956	6	,493	,513	,798
	In groups	185,239	193	,960		
	Total	188,195	199			
FID_3	Between Groups	4,261	6	,710	,770	,595
	In groups	178,094	193	,923		
	Total	182,355	199			

Appendix 20- ANOVA - Satisfaction and education degree

ANOVA							
		Sum of Squares	df		Medium Square	Z	Sig.
SAT_1	Between Groups	1,847	2		,924	1,572	,210
	In groups	116,342	198		,588		
	Total	118,189	200				
SAT_2	Between Groups	1,480	2		,740	1,312	,272
	In groups	111,115	197		,564		
	Total	112,595	199				
SAT_3	Between Groups	4,563	2		2,282	3,922	,021
	In groups	114,617	197		,582		
	Total	119,180	199				

Appendix 21- ANOVA - Loyalty and education degree

ANOVA							
		Sum of Squares	df		Medium Square	Z	Sig.
FID_1	Between Groups	14,452	2	7,226	8,912		,000
	In groups	160,543	198	,811			
	Total	174,995	200				
FID_2	Between Groups	10,816	2	5,408	6,006		,003
	In groups	177,379	197	,900			
	Total	188,195	199				
FID_3	Between Groups	8,796	2	4,398	4,992		,008
	In groups	173,559	197	,881			
	Total	182,355	199				