

WORTEN'S MOBILE APPLICATION CREATION Adding Customer Value or a Pressured Digital Response?

Inês Silva Alves Rosa

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Supervisor

Prof. Álvaro Augusto Rosa, Assistant Professor, ISCTE Business School, Marketing, Operations and General Management Department

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"It always seems impossible – Until it's done." Nelson Mandela (1918-2013)

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Abbreviations

APP: Mobile Application

CV: Customer Value

PCV: Perceived Customer Value

PR: Pressured Response

Abstract

The Aim of this thesis is to understand if the Creation of Worten's APP will add value to the customer or if it is a pressured digital response.

Nowadays, it is normal for most companies to start responding to the new segment of customers – the Digital Customers. To do so, many corporations build strategic methods to answer to new trends and businesses. Nevertheless, according to a Mckinsey&Company' research although 90% of the companies are already developing responses to the digital disruption, only 16% are actually fully incorporating those strategies at a scale. (Bughin & Zeebroeck, 2017)

With this it, it was selected the major ideas designed by the worten for the content of the APP and assessed what type of contents did the customer value the most. It was developed a national questioner to analyze the customer' perspective and create forms of implementation of their ideas.

Regarding the results, it could be concluded that, there is still a long way to run since the most whished content for the APP was related with Products and not Services. However, *Track&Trace* of services was selected as the most wanted content obtaining the highest percentage of votes, 27,3%, with groups of age under 34 years old (understanding that these groups represent the digital consumer in general).

The research provided clear ideas of the customer needs and suggestions on how to apply that type of content, giving to the company, various options of implementation.

Keywords: Customer Value, Digital Disruption, Pressured Digital Response, Strategy

Resumo

O objetivo desta Tese passa pela análise da Criação da APP da Worten e respetiva verificação de se é uma estratégia que adicionará valor para o cliente ou uma resposta de pressão digital.

Na atualidade, a maioria das empresas está ao corrente da necessidade de responder ao novo segmento de clientes – O Cliente Digital. Para tal, muitas empresas já estão a elaborar estratégias que forneçam resposta a novas necessidades e negócios. Contudo, de acordo com um estudo da Mckinsey&Company', apesar de 90% das firmas já estarem a desenvolver respostas para a disrupção digital, apenas 16% está a implementar essas estratégias de forma significativa na estratégia da empresa. (Bughin & Zeebroeck, 2017)

Com isto, selecionou-se a maioria das ideias geradas pela Worten para o conteúdo da APP e avaliou-se quais são mais valorizadas pelo cliente. Adicionalmente, foi desenvolvido um questionário nacional para analisar a perspetiva do cliente e criar formas de implementar as ideias obtidas.

Relativamente aos resultados, conclui-se que ainda existe um percurso a percorrer no que toca a Serviços para Casa, sendo que o conteúdo mais requisitado para a APP é relacionado com Produto e não Serviço. No entanto, *"Track&Trace"* de serviços foi a ideia com maior percentagem de voto, obtendo 27,3% em faixas etárias até aos 34 anos (entendendo que representam o consumidor digital no geral)

Com esta Tese providenciou-se ideias claras sobre as necessidades do cliente e deu-se sugestões em como aplica-las, fornecendo à empresa diversas opções de implementação.

Keywords: Valor para o Cliente, Disrupção Digital, Resposta de Pressão Digital, Estratégia

Executive Summary

This research analyses the strategy behind the creation of Worten's mobile application, assessing if it adds value to the customer or if it is a pressured digital response.

The opportunity of developing this research presented itself when the author started to work for the Sonae Group, specifically with the brand Worten, and the project needed a pivot from the Services Department (Department where the author works), with this the author started to be involved in the Project of Creating an APP and thought that it would be interesting to understand the strategy behind the project.

The objective of this thesis is to answer to the question – The Creation of Worten's APP will be "*Adding Customer Value or a Pressured Digital Response*?". It is also relevant to understand that the main goal of this app is to improve the response of Home Services and attract the segment of digital customers.

Under study are two important concepts – Customer Value and Pressured Digital Response.

These two topics were firstly studied on the literature review, investigating what did other authors had already developed on these concepts and retaining more theories that are important for this research.

Additionally, it was discovered a limitation during the literature review process since it is a relatively new topic and because of that there is still a gap on the concept of pressured digital response, which directly influenced the research on the topic.

Nevertheless, it could be understood that this topic is starting to be very common among companies, since according with researches (studied on chapter 2) most companies are already trying to respond to the digital disruption, but few are implementing strategies that impact the company's strategy as whole.

Regarding the concept of Customer Value, there was no problem on finding literature on the matter, however for this thesis it was important to identify what was the specific customer value of Worten's app, and not only the concept of the term.

With this, to further investigate the term customer value related with the research, it was created a national questioner that involved specific questions with all the ideas from the company to the App so that analyzing the customer' answers one could understand what did the customer valued the most and concluding if the suggested idea for the app made by the company was going to satisfy the customer needs revealed on the questioner.

Moreover, it was created a chapter of implementation. In this part of the research there is a study about implementation suggestions of the customer needs. It is a chapter that has in consideration the results of the questioner and inverts the strategy used by the company, since it is based firstly on the obtained type of content that the customer values and then, that content is applied to diverse digital platforms that can respond to their needs, in the chapter there is a detailed investigation related to the matter.

The results of the research showed that home services are starting to penetrate in the market, according with the questioner one of the most required features was "*Track&Trace*" of services which is a main content used to control must of all home services.

However, two out of three top wanted contents were related with product content. The selected options were *Product Information* and *Notifications* which indicates that although services are already being noticed and wanted, product is still what shows the most customer value.

The conclusion on the research's question is that, the company is not giving enough relevance to the customer's feedback and because of that the thought content for the mobile application does not completely fulfills the customer's needs.

With that it is possible to conclude that, if the company does not have in consideration the customer's valued content, then the creation of Worten' Mobile Application will be a pressured digital response.

This research comes to broaden future studies on the topics of *Pressured Digital Response* and *Customer Value*, related with digital platforms and on the business market. Additionally, this research could be also studied in terms of cost implementation, or communication plan. Also, it would be interesting to further approach the identification of the different intervenients for the App's Creation and assess the types of importance related with the creation.

Finally, important to other fields of study, for example social sciences, psychology or sociology, it could also be investigated how the creation of the app would emotionally affect the consumers, developing a study based on human behavior.

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Some limitations of this study were crucial while elaborating it. The main limitation was on the literature review, since the research has a relatively new theme that has not yet been fully studied and developed, it was very difficult to discover literature related with pressured digital response or mobile application' creation.

Additionally, the whole researched was based on the fact that the author was involved on the Creation of the APP Project, however this project was paused due to lack of budget, and with that the author had to continue the research with no collaboration with the company. Other limitations were found however they are further analyzed in the end of chapter 6.

Chapter 1 - Introduction

Nowadays creating digital customer value is one of the most important aspects that a certain company should invest on. Customers are well informed, very demanding and expecting for excellency in a service or product. Moreover, the increasing competition, that has been rising from the past years on, makes it crucial to better study what does the digital customer, values the most as with what keeps him on a certain brand instead of the other.

Under this subject, Worten Portugal is developing a new tool to respond to this new type of customer, the digital customer. Worten Portugal is part of The SONAE Group, which has 8 insignias on it - SONAE MC, SONAE SR; SONAE RP; SONAE FS, SONAE IM; SONAE SIERRA; SONAE CAPITAL; NOS. Together they made on the previous year of 2018 a yearly turnover of 5, 951€ Billions. Worten is part of SONAE SR which involves brands like Zippy, MO and Sportzone. In the previous year Worten reached for the first time 1 billion turnover.

The tool to be created is an app that is going to provide the opportunity to buy Worten's product and services. However, in this project the studied part is going to be the services part, which is the part of the project where I am responsible for in the company. My journey at Worten started in September 2018 when I entered on the Trainee Program in the Services and After Sales Department, more specifically dealing with Home Services and having direct report to the Area' Leader.

Some general ideas from the application involve, ability for the customer to book an installation, repair, or maintenance at his time table choice (date and hours), track & trace of ordered services and rating the technicians.

In short, the goal of this app, related with the service concern, is to improve the response of home services, and attract the segment of digital customers.

The aim of this thesis is to understand what the customer value of this new Worten's tool is and if it is actually necessary to create it - "Is Worten's mobile application adding Customer Value or is it a pressured digital response". To answer this aim, it is necessary to explain, what impacts will this tool have on the customer and if it will add value for the consumer.

This study is imperative and relevant since the approvement of the project depends on the factor of how the customer perceives this application.

However, this thesis has some limitations, understanding how the digital customer reacts is complicated and one cannot trust in a short sample of results, since the digital customer is different in many aspects. Also, because it is an on-the-moment project, everything is still being planned and thought about which makes it harder to get real information since updates are made till the very last moment of the tool's launching.

Chapter 2 - Literature Review

This study is going to be based in the definition of Customer Value and Pressured Digital Response. As the relation between these two topics are yet being studied, this thesis comes to broaden the views on the relation of these two matters.

2.1 Customer Value Concept

There are many definitions for Customer Value depending on the context of how it is used, however, in this perspective, Customer Value can be defined according with Gautam Mahajan, President of Customer Value Foundation which has stated in 2016 that "*Customer Value is the perception of what a product or service is worth to a Customer versus the possible alternatives. Worth means whether the Customer feels she or he got benefits and services over what she or he paid.*" (Mahajan, 2016). Moreover, Robert Woodruff studied also Customer value and its meaning in 1997, according to him -"*Customer's perceived preference for and evaluation of those product attributes, attribute performance, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations.*" (Woodruff, 1997).

Additionally, one can consider Customer Value to be the core of a business, according with Donovan McFarlane, that studied "*The Strategic importance of Customer Value*" every interaction that a business has with a customer is an opportunity to satisfy even further the customer and convince him about the value of the business (McFarlane, 2013)

The research on this subject has been one of the top priorities identified by Marketing academics, there are various definitions to it, however all rely on the concept of the *"customer's perspective of provider services or products"* (Graf & Maas, 2008), (Spiteria & Dion, 2004).

Furthermore, Albert Graf and Peter Mass studied two different approaches of Costumer Value - the Product-Oriented Customer Value which limits are "on the trade-off between perceived quality and price of a product or service" (Graf & Maas, 2008). They agreed on the pursuit for empirical clarification of terms related with this type of Customer Value, such as the positive relation between perceived quality and perceived customers value or the negative relation between perceived price and perceived customer value, integrating too the relation between quality and price. (Graf & Maas, 2008); (Gale, 1994). To complete the analysis of Product-Oriented Customer Value, it has been also researched the extrinsic and intrinsic indicators of perceived product/service quality. Intrinsic indicators are part of the product, such as product quality. The only way they can change is if the product is modified. However, "Extrinsic indicators such as price, brand name, level of advertising or country of origin are related to the product, but are not inherent in the product itself, and thus can change over time. In this context, quality is considered as mediator in the relationship between all extrinsic indicators and PCV. Perceived sacrifice acts as mediator in the relationship between price and PCV. Thus, price serves as an extrinsic indicator for both perceived sacrifice and perceived quality." (Graf & Maas, 2008).

Studied the Product-Oriented CV (CV which stands by Customer Value), it is now necessary to understand the other CV type – The Relationship-Oriented Customer Value. This type of Customer Values implies not only the product or service features but also

the relationship attribute – "Many researchers have broadened their CV concepts to include, in addition to product and service attributes, relationship, process, and risk components. In this context, a significant enhancement of the PCV (which stands for perceived customer value) construct is the addition of relational attributes" (Graf & Maas, 2008). In their study they stated that the longer and stronger a relationship between a company and a customer is, the more there is a shift from concentrating on the product or service to start focusing on the benefits/sacrifice attributes of the relationship, which means that "(...)the positive and negative effects of preserving the relationship with the company must be included in addition to the utility and expenditure of a good and its supplementary services." Additionally, there are a lot of researches that include process elements on the Product-Oriented Customer Value, particularly features of the post-purchase phase – "(...) The benefit dimension is often expanded to include process utility components, particularly aspects of the post-purchase phase (e.g., supply, maintenance, warranty) in order to take into account temporal components." (Graf & Maas, 2008).

Related to this matter, Customer Value does not automatically refer only to the "how much" it is, meaning not only to the price, but also to all the other variants that influence a customer on choosing one brand instead of the other, such as effort, time, easiness, status, esthetics and so on. These variables change depending on the type of customer. (Mahajan, 2016). Also related to this topic Michael Porter studied about "Value Chain" which is often used in the field of strategy regarding an organization. Porter stated that "value chain is a collection of activities that are performed by a company to create value for its customers. Value Creation creates added value which leads to competitive advantage. Ultimately, added value also creates a higher profitability for an organization" (Porter, 1987).

Moreover, one needs to fully investigate how can Customer Value be assessed. Regarding this topic there is a vast literature that studies the matter, however for this thesis it is important to highlight Keränen and Jalkala's scientific article which talked about Customer Value assessment. According to the study customer value is a process that "begins before and continues long after the delivery" (Keränen & Jalkala, 2013). The authors proposed a Customer Value Assessment Model that is based in four pillars. The model is divided in two parts: "Pre-Delivery" and "Post-Delivery". For the first part that comprehends "Value Potential Identification" and "Baseline Assessment", the company needs to evaluate and understand the needs, processes and monetary impact of the customer, as determining the customer's performance and identifying mutual goals. With those two topics covered it is possible to start the post-delivery part. In this part, it is most relevant to do a "Performance Evaluation" conducting trials and understanding the impact on the customer's performance. At last there should be a "Long-Term Value Realization" confirming and documenting the realized Customer Value. (Keränen & Jalkala, 2013).



 Table 1- Customer Value Assessment Model

 Source: Keränen, J., & Jalkala, A. (2013). Towards a framework of customer value assessment in B2B,

2.2 Pressured Digital Response

Further it is relevant to better acknowledge what is a Pressured Digital Response and how companies often fail to study how they should properly respond to the requirements of a digital customer. According to Rob Llewellyn, Digital Advisor of companies such as PwC, Accenture, Fujitsu, HP and FIFA, Pressure Digital Response origins from an action of copying what the competitor is doing that was often made before the digital evolution. However, in these digital days one cannot simply copy the same digital tools without further understand how to use them properly to create value for the customer. "Too many companies are exposing themselves to the dangers of the transformation illusion by tinkering with Apps, upgrades and new systems, which do nothing to transform their business models." (Llewellyn, 2016). It is Llewellyn belief that even though one cannot underestimate the power of small digital changes, the most imperative action is to create a convergence between the new technologies and how the business operates, on the way to give rise to new digital business models: "While small digital changes might be necessary, they are often non-strategic and fail to bring about the thoughtful transformation of business models that will enable companies to remain competitive as disruption closes in on them." (Llewellyn, 2016)

A research made by Mckinsey&Company proposes that a company should contemplate two dimensions when it is trying to compete in digital markets. First, it is most important to focus on the new type of customer rather than only on current customers. Second, understanding the future strategy to resegment the market, instead of using the same strategies concentrating on cost reductions and labor saving with automation. (Bughin & Zeebroeck, 2017). According to the study, companies are not yet responding properly to the digital disruption. In their statistics although 90% are already engaged in some digitalization, only 16% are supporting revolutionary strategies at scale – "*The good news is if your company has yet to fully and adequately engage with digital disruption or has begun going down a path that is not yielding positive results, it's not alone. Thus, leaders in most industries still have a*

window for putting a bold digital strategy in place. But it may not stay open long". Additionally, there is only 30% of companies concerned about creating ways to handle demand. (Bughin & Zeebroeck, 2017).

The previous research indicates that many companies are succeeded when it comes to understanding that there is a digital disruption that needs new strategies as a response. However, few are being able to fully integrate those strategies correctly, meaning that they are creating small strategies as a PR to the digital disruption, but then again, those strategies do not generate significant changes into their corporate strategy, which therefor means that the responses are often only pressured responses and not fully though ideas.

2.3 Customer Needs

Having studied the two major concepts of this thesis (Customer Value and Digital Pressure) it is important to go deeply about the customer's desires on mobile applications. Since it will further be measured what type of features the customers cherish the most it is relevant to identify what has already been studied on this topic.

In 2018 the CLAB Digital release a research about "I, Digital Consumer", which has most relevance on this thesis and is going to be used later on this paper. The studied involved 600 Portuguese people in the areas of Lisbon and Porto. The studied segmented the personas on three ways: *Early Adopters* (the people that do not fear change), *Followers* (the ones that do has others have already done), *Late Adopters*. In the study it was firstly indicated what were the consumers using more in their mobile phones, differentiating the results accordingly with the 3 segments of personas.

There were 5 variants indicated - The productivity "my mobile phone is crucial for my daily organization and productivity", the results were as expected, the Early Adopters with 78%, Followers with 51% and Late Adopters with only 29%. The second variant was the Quotidian "I acknowledge that I have been extending my mobile phone usage, increasingly, to more moments of my daily routines", Early Adopters scored 87%, Followers 69% and Late Adopters 44%. The third variant was the New Apps "New Apps make me intensify the use of my mobile phone", results were the same for the Early Adopters and Followers with 43% and Late Adopters with 28%. The fourth variant was Consumption "Regularly visit online store through your mobile phone? Yes", Early adopters 60%, Followers 41%, and Late Adopters 28%. The Last variant was The Brands "In the last two years was there a big change on the usage of your mobile phone driven by brands/company relation? Yes". Results were on the Early Adopters 25%, Followers 18%, and Late Adopters 13%, as shown on table 2 (The Consumer Intelligence Lab, 2018)



Table 2- Mobile Phone Profile study Source: The Consumer Intelligence Lab "I, Digital Consumer", 2018

Further on The Consumer Intelligence Lab study it was investigated what are the areas where it is expected a positive evolution due to the technological advances through the years. The questions that was asked was "*Thinking about the recent technological advances, what are the quotidian areas where you would most expect a positive evolution?*", the results involved 10 topics. From higher to lower score - *Energy Production and Expenditure; Waste Management; Public Transportation; Calmer cities; Alternative Mobility; Automobile Mobility; Logistics and Home Service; Quotidian objects; Home Appliances; Voice Commands.* It is relevant to this study to mention that *Logistics and Home Service* had a score of 37% from the consumers on the C-Lab (Consumer Intelligence Lab) investigation, which is related with Worten's chosen topics for its APP (mobile application)

Summarizing, the study "I, Digital consumer" helps to better understand how the Portuguese relation with their mobile phones is, and what do they cherish the most on using their phones. Also, it is relevant to point out that they revealed a window opportunity for Worten' APP since logistics and home service is mentioned on the study with a fair score which goes with accordance with the objectives of Worten's APP being studied: make more agile the home services for its customer

LIFE AREAS WHERE IT IS EXPECTED, IN THE NEAR FUTURE, A POSITIVE EVOLUTION



Q. Thinking about the recent technological advances, what are the quotidian areas where you would most expect a positive evolution?

Table 3- Life areas where it is soon expected a positive evolution Source: The Consumer Intelligence Lab *"I, Digital Consumer", 2018*

Chapter 3 - Methodology

3.1 Research Problem

As it has been explained previously, many companies often fail to understand the difference between trying to digitally upgrade themselves by simply giving trendy tech to its customers or upgrading not only with trendy tech but also presenting real added value to its customers.

With this it is necessary to deeply understand what is that the customer wants to see in a mobile application.

In a nutshell the aim of the investigation is to obtain information about what does the customers will value in a Worten's mobile application

3.1.2 Research Design

To better understand the current study an investigation model is presented below, divided on the research problem, goals and questions.

3.1.3 Research Goals

This Research has the objective of understanding what the consumer will value on a Worten APP. The investigation focuses acquiring all the ideas that the consumer may have and segment them by priorities according with the different personas. The Goals selected were:

- Segmenting the sample
- Understanding the relation of our customers with Apps
- Identifying the right content that would attract our customers the most
- Give opportunity to the customers to share their own ideas (open question)

3.1.4 Questionnaire Questions

Goals		Research Question	Questionnaire Question
1. Segment the	e sample	RQ1: What are the segments that we can use to distinguish our sample?	QQ1: What is your Gender? QQ2: What is your age? QQ3: What is your local of residence?
2. What type of does the co value?		RQ2: Is there already a relation between the consumer and Mobile Apps? If so what Apps do they use the most?	Q4: Do you have any App installed on your smartphone? Q5: Which Apps do you have installed on your phone?
3. Understand of content o does the co values?	on an App	RQ3: What type of content will the consumer value on a Worten App	Q6: Related to a Worten App select three areas that you would like to see on it. Q7: Measure them from 1 to 3 1.Schedualing home services 2.Products information 3.Diagnosis and Reparements 4. Reviews and Rating 5. Notifications (promotions, Q8: warranties.) 6.Tracking (packages, reparements.) 7.GPS for products in store 8.Livechat 9. Auction only in App Q8: Detail topics 2 and 5
4. Acknowledg consumer h ideas, and u	as valuable	RQ4: Out of the blue, what more ideas do the consumers have?	Q9: Any suggestion of a service that you would like to see on this App?

Table 4- Research goals, Research question, Questionnaire question

3.2 Sample description

3.2.1 Target population

The main goal of this investigation is understanding what the customers really want to use in an App. The questions will be related with Worten's service and performance. The chosen group has bought services or products at worten on the previous 30 days since on this way they will hold most knowledge and will give better feedback on our questions.

3.2.2 Data Source

The collected data for this research was carefully studied and analysed. The questionnaire was sent to 1,997 people that had made purchases, at worten, on the previous 30 days. It is expected a response average of 20%.

The Data will be sent through the digital platform "Survey Monkey", and further the "Client Team" will cautiously analyse it and provide the results to future data cross.

Chapter 4 – Analysis and Results of the Research

4.1 Insights of the Analysis

4.1.1 General Considerations

Before starting the results analyses and discussion it is important to point out that there was no personal or professional relation with the respondents of this questionnaire and moreover their personal data is confidential and had no relevance on this study.

The Questionnaires were sent on April 2019 and collected on May 2019, the contacts with the respondents were strictly made online through their emails. Regarding the invites to the questionnaire there were sent 1,997 questionnaires, from this total 1,037 were opened (51,9%), 911 were ignored (45,6%), and 49 were returned to its mailbox (2,5%). Concerning the Answers, there were 257 total responses which leads to a response rate of 12,87%., from these 257 responses, 66,9% were completed and 33,1% were partial completed (table 5, presented in Portuguese since it was taken from a Portuguese program).



Table 5 Sample Size and responses rate Source: Private Worten's Data Base

It is most relevant to highlight that these questioners were sent on a national level, and have a substantial number of respondents, making this study more accurate and reliable. All the results will be shown in tables or graphs in order to better visualize them, however conclusions with the proper information will be presented on chapter 8.

4.1.1.1 Respondents Profile

Previous to the analysis itself it is pertinent to know the respondent's profile. There were made three personal questions which can segment the responses. Also, it is convenient to remind that the chosen sample is composed by people that had made purchases, at worten, on the previous 30 days.





Source: Worten's APP Questioner

Regarding the data it can be seen that in light blue is the results for male respondents, and in light rose it is for female respondents. The information about the gender is going to be used later on the research to cross data from female to male respondents.



Concerning figure 2, it can be explained that in dark blue is represented the region from most respondents and the color fades in proportion with the percentage of respondents from that region. Additionally, the data is alphabetically organized.

iii. Age



Figure 3 Respondent's Age Group Source: Worten's APP Questioner

Moreover, related to figure 3, the organization of colors is the same as used on figure 2, concerning regions. However, the data in figure 3 is in decrescent order.

Regarding the respondent's profile it can be observed that the majority of the responses are from males, 68%, which means that 32% of the respondents are females. Further the respondents live mainly in Lisbon 37,5%, but a good percentage are from Oporto and the Center, 34%. The lowest percentage in terms of region came from Algarve with 3,6%. Moreover, in terms of age group, the highest percentage is from 18 to 24 years but there is a relevant weight in the group from 25 to 34 that together has a total of 44,2%. People under 18 have the lowest score with only 0,4% of the responses.

4.1.2 Questionnaires Results

iv. Mobile Applications Usability

In the Questionnaire it is possible to understand that the majority of the sample uses often their phone and has installed one or more mobile applications, in fact 88% has answered that they have APPs on their phone (Figure 4)



Figure 4 Q4: "Do you have any mobile application installed on your phone?" Source: Worten's APP Questioner

v. Popular Mobile Applications

Regarding the type of APPS that the costumers tend to select and preserve on their phones the most popular one by far is *WhatsApp* with the highest score, rating 91%, followed by *MBWay* with 50% and *Waze* with 33%. Also, *Uber or Uber* eats has 27% and *Epark* with 12%. The lowest score is *Glovo* with 6%. 20% of the sample replied with "*Others*" and mentioned apps like: banking apps, social network apps, travelling apps and navigations apps (figure 5)



Figure 5 Q5: "What Apps do you have installed?" Source: Worten's APP Questioner

vi. Worten's App Whished Content

Concerning the evaluation of Worten's App content the made question was to select three types of whished content out of a total of nine options. The options contained: 1. *Track of packages, Reparements, Deliveries and access to Purchases Historic;* 2. *Live Chat* with an assistant; 3. *Products Information* stock, augmented reality, QR code, instruction manuals; 4. *Rating and Reviews*, possibility of rating services or products and checking other client reviews; 5. *Stores Location and Product location* (on the store); 6.*Notifications* about product/services discounts, booked services, warranties, ready to

pick-up products; 7. *Service Booking with Agenda* access, to deliveries, reparements, pick-ups; 8. *Product/Service Auctions* a game between clients where they must bid on products until they buy it on a possibly more affordable price; 9 *Online Diagnosis and Installation tutorials*.

Selecting 75% of Worten's App whished content combinations. It can be observed that 16% of the sample consider that the App must have *Product Information*, *Track&Trace* and *Notifications*.

Also 7% chose *Product Information* and *Track&Trace*, however for the third option instead of notification, it is *Service Booking with Agenda*. Further other 6% chosen too *Product Information* and *Track&Trace*, but the third characteristic was *Livechat*.

The top 4 and 5 on the whished contents are two groups of 5%, both groups selected *Track&Trace* and *Product/Service Auctions*, however one group chose *Product Information* and the other preferred *Notifications*. (*figure 6*).

16%	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,) Track&Trace (orders, deliveries, reparements,) and purchases' historic
796	Service booking with Agenda access (deliveries, reparements, pick-ups) Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Track&Trace (orders, deliveries, reparements,) and purchases' historic
696	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Track&Trace (orders, deliveries, reparements,) and purchases' historic Contacting an employee through Live Chat
5%	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Track&Trace (orders, deliveries, reparements,) and purchases' historic Product/Service Auction exclusive on the mobile applications
5%	Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,} Track&Trace (orders, deliveries, reparements,) and purchases' historic Product/Service Auction exclusive on the mobile applications
496	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Track&Trace (orders, deliveries, reparements,) and purchases' historic Stores Location and Product location (on the store)

4%	Track& Trace (orders, deliveries, reparements,) and purchases' historic Contacting an employee through Use Chat Product/Service Auction exclusive on the mobile applications
396	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Online Diagnosis and Installation tutorials. Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,)
3%	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,} Product/Service Auction exclusive on the mobile applications
3%	Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,) Track&Trace (orders, deliveries, reparements,) and purchases' historic Contacting an employee through Live Chat
3%	Product/Service Auction exclusive on the mobile applications Rating and Reviews, possibility of rating services or products and checking other client reviews Track&Trace (orders, deliveries, reparements,) and purchases' historic
2%	Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,} Track&Trace (orders, deliveries, reparements,) and purchases' historic Stores Location and Product location (on the store)
2%	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Online Diagnosis and Installation tutorials. Track&Trace (orders, deliveries, reparements,) and purchases' historic
2%	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Online Diagnosis and Installation tutorials. Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,)
2%	Service booking with Agenda access (deliveries, reparements, pick-ups) Online Diagnosis and Installation tutorials. Track&Trace (orders, deliveries, reparements,) and purchases' historic
2%	Service booking with Agenda access (deliveries, reparements, pick-ups) Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,) Track&Trace (orders, deliveries, reparements,) and purchases' historic
2%	Product Information (stock in store, functions, instruction manuals, rate, compatible accessories, augmented reality/product visualizing at your own home Rating and Reviews, possibility of rating services or products and checking other client reviews Notifications (product discounts, booking, pick-up products, stock availability, maintenance of bought products, expiring warranties,)
2%	Service booking with Agenda access (deliveries, reparements, pick-ups) Track&Trace (orders, deliveries, reparements,) and purchases' historic Contacting an employee through Live Chat
2%	Service booking with Agenda access (deliveries, reparements, pick-ups) Track&Trace (orders, deliveries, reparements,) and purchases' historic Contacting an employee through Live Chat

Figure 6 Q6: Worten's Whished Content Combination (75%) Source: Worten's APP Questioner In the previous figure and analyzes it is only represented 75% of the sample, being that there are still 15% remaining. However, this percentage contain 18 combinations of 1% or less than 1% being that the relevance of these answers had not such importance to do a similar extensive study of the answers that had results higher than only 1%.

vii. Relevant characteristics for Product Information

Further on the questionnaire it was considered that there was still necessary to deepen on two points.

Firstly, the characteristic about *Product Information* had many details related to it and it would be interesting to study what was the costumer relevance of each one of it.

Secondly, the option of *Notification* had also a lot of types of notifications that could be presented on the App, therefore it was selected seven options to rate, according with how relevant it would be.

Related with the first point, it can be observed on Figure 7, that the most relevant option about product information is related with *Stock* availability and the 2nd most relevant is about Compatible Accessories. Unboxing Videos and Instruction Manuals which are the

3rd and 4th option. The 5th characteristic is about checking products' *Rating* from other costumers. Surprisingly, *Augmented Reality* only appears on the 6th option followed by *Ability to order Discontinued Products*. The less relevant characteristic pointed out by the consumers is *Wishlist Creation*.

The Most Relevant	Stock in store
The 2nd most relevant	Competible accessories identification
The 3rd most relevant	Product Unboxing videos
The 4th most relevant	Instruction manuals
The 5th most relevant	Rating
The 6th most relevant	Augmented reality (product visualizing)
The 7th most relevant	Ability to order discontinued products
The Less Relevant	Wishlist Creation

Figure 7 Product Information Source: Worten's App Questioner

viii. Relevant characteristics for Notifications

Concerning the second point related with *Notifications*, it is possible to analyze on Figure 8 that accordingly with the customers the most relevant notification that could be on the App is related with *Personalized Product Discounts* to the type of costumer.

Nevertheless, *pick-up products* have been chosen with the 2nd most relevant characteristic, followed by *Promotions Alerts* of all products. The 4th option was associated with *Stock Availability* followed by *Warranties Expiration Warnings*.

The last two options were Maintenance warnings and Future Booking Alerts.

The Most Relevant	Personalized Product Discounts
The 2nd most relevant	Pick-up products
The 3rd most relevant	Promotions Alerts
The 4th most relevant	Stock availibility
The 5th most relevant	Warranties Expiration warning
The 6th most relevant	Maintenance warnings
The Less Relevant	Future booking Alerts

Figure 8 Q8: Notifications Details Source: Worten's APP Questioner

ix. Consumers Ideas

To conclude the questioner, it was important to give the opportunity to the consumers to speak up and share their own ideas of content that had not yet been mentioned. With this it was possible to collect some important data.

The majority said that it would be interesting to have "APP Points" that could further give discounts on future purchases, others stated that having a "Clients record" on the App would be very useful and relevant and some even mentioned products descriptions and details.

x. App Instalment Attach

Finally, at the end of the questioner there was a hidden question made only for those that had completed all questions. It was a question related with installing the mobile application in their phones, so that one could understand the percentage of attach to the
App's Content. As it can be seen on figure 9, 52% of the sample stated that they *Could probably install* and 44% said that they *Would install, for sure,* however 4% alleged that they *Would not install, for sure.*



Figure 9 Q10: Would you install the Mobile Application? Source: Worten's APP Questioner

4.2 Results Discussion

This chapter is going to be explained following the same order as the previous one, so that it can be easier to understand.

Through each point there is going to be a summary on the showed results during

chapter 6 and a related analyzes to further develop the outcome of the present study.

iv. Mobile Applications Usability

Accordingly, with the study 88% of the sample stated that they have one or more mobile applications installed on their mobile phones.

Which means that, firstly, the sample of the present study is relevant and appropriate for it and, secondly, nowadays it is normal for most people to have a strong relationship with their mobile phones and therefor install mobile applications to fulfill certain gaps that one has on their daily routines, which can indicate that developing a mobile application is a strong move related with client satisfaction, if done properly.

v. Popular Mobile Applications

With this question it was perceptible that there are certain Apps that are more relevant to the customers.

In general, it can be possible to interpret that the most popular Apps are the ones that have the purpose to simplify daily routines such as: talking with people from a distance, making payments, avoiding traffic areas or even getting a meal without getting-up from the seat.

This statistic proves that the customers value applications that can be used on a daily basis and if possible to help on their normal routines.

vi. Worten's App Whished Content

Regarding the topic being studied, it can be observed that the three most wanted characteristics were *Track&Trace* (orders, deliveries, reparements,.) with *Purchases' Historic; Product Information* and *Notifications*.

These results demonstrate that however the ideas of improving home services are related with the customers' needs being that *track and trace* mechanisms are mainly applied to control home services, this is only one of our customers concerns, *Product* Information and *Notifications* are contents related with product purchase and not services control.

These percentage of answers may indicate that the customers are still not ready for this improvement and do not recognize these characteristics as a natural need for them, which could mean that the answer to the issue in study could be straight away that the thought content for the App does not match our customers' needs and that the results of this study would be that this App creation is *a pressured digital response* nevertheless to guarantee a trustworthy study it is important to further look onto the obtained results.

During the first part of the analyses on point VI "Worten's App Whished Content", the obtained results were calculated with the whole sample, focusing on the personal needs of the customers, disregarding every other variable, for example age groups. However, this variable may be important since, as explained on the "Exposition of the context" the goal of the App is to attract a specific segment of customers – the Digital customers.

On the first results the sample had 21% of people under 35 and it is important to notice that this segment may be influenced by the age group being that usually people under 35 are more attracted to digital daily routines and can have different opinions than people over 35.

To mitigate this issue of age groups it was made a simple filter of only considering results from age groups till the age of 34, the outcome is shown below:



Figure 10 whished Content based on age groups up to 34years old Source: Worten's APP Questioner

Analyzing the results considering five age groups: less than 18 years old, 18-24 years old; 24-30 years old; 30-34 years old, it can be examined that the most selected content was *track & trace* with 27,3% of the sample, however the other two contents: *Product Information* with 21,3% and *Notifications* 14,8% are the same as the ones obtained when considering all age groups.

Summarizing, even when applied a filter on age groups to emphasize the needs of people under 35, which are the most probable to be in the segment of Digital Consumers, the most selected content to the App is exactly the same as when one uses the whole sample disregarding age groups.

Further on the analyzes it is possible to recognize that on the top 3 most wanted contents *Product Information* and *Notification*, were contents that had a lot of variants and to study those different variants inside the specific topic there were made two more questions about those contents.

vii. Relevant characteristics for Product Information

In this topic it is important to notice that the given options inside *Product Information* had hidden characteristics so that it would be possible to better analyze the results.

These hidden characteristics contain service content - "*Rating, Unboxing videos, Instruction Manuals*" which are all related with service, rating would be evaluating technicians and employees service, unboxing videos and instruction manuals would be associated with the service "help provider" which is a regular trend in retail companies where the company is responsible to give help to it's customer about every aspect of its products.

However, there were also other characteristics related with product content – "Stock in store; Compatible accessories, Augmented reality, Order Discontinued Products and Wishlist creation", all these characteristics are only product related.

Examining the outcomes, it is possible to understand that the most relevant contents, regarding *Product Information*, are related with product and not service content.

viii. Relevant characteristics for Notifications

As used on the previous questions, also for the Notifications detailed content it was thought of hidden characteristics that could help figure out what type of notifications the worten' consumers would want to receive.

For product characteristics it was thought of "Personalized Product discounts and Stock Availability;" as for service characteristics it was considered "Pick-up Products (which is related with track & trace orders); Warranties Expiration Warnings; Maintenance warnings; Future Booking Alerts".

The content regarding "*Promotion Alerts*" have hybrid characteristics being that the promotions can either be for products or services.

Analyzing the results, it can be seen that the most wanted content is related with product content "Personalized Product Discounts", however one cannot be fully certain on this result being that it involves discounts which are a very popular content that may have nothing to do with the product characteristic.

The other two relevant contents are related with service characteristics *Pick-up Products* that are directly associated with Track & Trace of orders the most wanted content on the app, and *Promotion Alerts* that is a hybrid characteristic.

These outcomes indicate that according with Worten's customers, *Product Information* needs to have characteristics that are related with Product content such as *Stock in Store* or *Compatible accessories*.

As for *Notifications*, this content is a hybrid, customers think that notifications should be about Product content such as Personalized Product Discounts or Stock availability, but service content is also required such as Pick-up products (Track & Trace).

4.2.1 Results Consolidation

It is relevant to summarize the obtained results to have a clearer point of view on the actual needs of Worten's customers. It's important to present a brief analyzes of all the discussion on Chapter 4, connecting all the main topics to elaborate a trustworthy conclusion before studying how to implement these results on the creation of Worten's APP, making sure that those implementation' actions will add value to the customers.

In a nutshell, it is possible to firstly understand that all the results are trustworthy since the sample has every region of the country and all age groups are considered, additionally the results have both feminine and male point of view.

To start it is important to mention that the outcomes of the Digital Customer needs are not influenced by age groups as it was previously studied. Using the whole sample, with all age groups from under 18 years old to over 55 years old the results are exactly the same as when an age group filter is created considering only age groups with people under 35. This means that the Segmented of Digital Customers is not majorly constituted by younger people as it was thought.

Moreover, analyzing the first results it is possible to understand that people are more and more used to have mobile applications on their mobile phone, which can be a positive data to this study. However, the most popular Apps are related with daily routines and making live tasks easier, what can be a step back on the idea of creating a mobile application that adds value to the customer, being that Worten's products and services are not a daily need and cannot be considered as day-to-day routine.

Furthermore, when examining the second results regarding the whished content for the App it can be observed that there were three types of contents that had a higher percentage of votes.

The first content was Track and Trace that is related with controlling home services, booked services, reparements status and so on. All of these characteristics are extremely associated with Services Content, and reveal that the majority of Worten's Customers wish to have this type of content on the App.

The second most wanted content was *Product Information* that is obviously product content, this content was also further studied in question seven where the customers showed that the most popular needs were related with product like "stock availability" or "Compatible accessories".

Finally. the third most relevant content was about receiving *Notification*, in question 8 the customers had to identify types of notifications that they would cherish the most. It was understood that for notifications the customers' needs were both on product content and service content, for product content it was identified "*Personalized Product Discounts*" and for service "*Pick-up products*".

Concluding on the results it is possible to understand that although services are already entering on Worten's market and on the needs of its customers, the data does not seem to indicate that *services* are a priority need for the company's customers, being that if Worten does not have in consideration this feedback from their clients an keep the same content strategy it is possible that the App would not add value to the customer and so it could be described as a – mere pressured digital response.

However, as part of this study it was thought that it would be appropriate to analyze all these results and provide ideas to better implement Worten's App and help the company on adding value for the customer. This topic is going to be investigated on chapter 8 "Forms of Implementation".

Chapter 5 - Forms of Implementation

To conclude this study, it was thought that it would be interesting to finish with relevant ideas that would help SONAE on implementing the "digital tool" according with the questioners' feedback, providing a pertinent suggestion to add value to the customer.

5.1 Type of Digital Relationship

First, it should had been studied from the start what type of digital relationship does customer want to have with Worten? Being that Worten' purchases are not the so called "regular purchases" and that maybe the digital relationship does not need to be through a mobile application. As previously study on the literature review ". "*Too many companies are exposing themselves to the dangers of the transformation illusion by tinkering with Apps, upgrades and new systems, which do nothing to transform their business models.*" (Llewellyn, 2016).

To better comprehend the next part, it is relevant to understand what Digital Relationship means: "For some executives, it's about technology. For others, digital is a new way of engaging with customers. And for others still, it represents an entirely new way of doing business." (McKinsey & Company, 2015) moreover, digital relationships can generate more information and interactions and therefor improve trust from a customer to a certain brand – "(…) that may include, for example, expanding existing customer journeys into new businesses and services that extend the relationship with the customer, ideally to the benefit of both parties. These innovations in turn fuel more interactions, create more information, and increase the value of the customer-brand relationship" (McKinsey & Company, 2015)

It can be understood that it is most relevant to study this digital relationship before even selecting content, or there could be the error of financing the wrong digital tool and consequently ending with a tool that does not enhance value to the customers.

Before examining what type of digital relationship does the customer want, it is important to indicate different types of digital relationships to understand the possibilities that are being considered. A digital relationship can be made through various ways, not only mobile applications. In this case it is being disregarded Websites and Newsletters, being that SONAE already invested on these types of digital relationship and wants to invest on other resources. For example, *Amazon* uses *Email* to help their customers when they need it, other companies like *Netflix* may even use a *WhatsApp* number to provide valuable tips of personalized content to their customers. Moreover, the famous streaming music company *Spotify* invested on an AI powered chatbot with *Messenger* App to help their customers on choosing the best types of music to them. Chatbots can also be used on Websites through a "Live-chat", as well as it could be a real person behind the Live-Chat, for instance *Nordstrom* a top American clothe retailer Company uses both chatbot and real person live-chat to please their customers. All the previous companies financed other digital methods to satisfy their customers, providing real value.

5.2 Implementation Suggestions

Exploring the most wanted content obtained on the questioners' feedback, it can be identified *Track and Trace; Product Information* and *Notifications*. Understanding that these three types of content are the most valuable for the customer, it is important to explore methods to answer to the customer's needs.

However, it was thought that it would generate more value for the research if the organization methods were to change. The company was creating this project on the starting point off the idea "APP" content that would be only used for an APP. Nevertheless, for this research it was thought that it would be interesting to invert the method and change to the starting point being the valued content obtain on the questioner results to the end (what digital platform to use).

To simplify, the starting point is now the valued content of the customer and it is being studied the various digital methods to use them. In this way one can really use the customers feedback.



Figure 11- Forms of Implementation Method

During this part, there is going to be a segment of the three contents and a detailed overview with ideas for each.

- *Track and Trace* can be used in various ways:
 - 1. WhatsApp number It would only be needed to know the order number or process number. The customer would be notified through his personal WhatsApp about the status of his order. For example, if the customer wanted to know about a repair of his laptop, he would just type the order number of his repair, and he would get an automatic reply (linked to the system that controls the work orders) responding that his order was "Ready to pick-up" or "at the office shop" or "in transport to the office shop". Also, if the order status would change to "Ready to pick-up" it would active an automatic message, that would be sent to the WhatsApp number of the customer. (The status names used above, are mere suggestions)
 - 2. Email at the starting point of the process, the customer would receive an automatic email, that would have a link on it. The link would send the customer to a website page that could represent a chronological line with all the status and would point out the current status of the process. Many companies already use this type of Which would mean that whenever the customer would want to check his order status, it would only take a visit to his email and a click on a link. Also, when the status would change to "Ready to pick-up" an automatic email should be sent, mentioning the alteration of the status, alerting the customer to pick-up his order.

- 3. Website Chatbot In this case, the customer would have to open Worten's website, go to "Chatbot" for example, and start a conversation with it, the same as on messenger or Instagram. A chatbot works with a bot answering questions which has been programed for. In this case there could be some prepared questions that the customer would have access to, for example "What is the status of my order?"; "I lost my order number"; "Is my order ready?". To this the chatbot would be linked to the work order system and could trace the number of the order or the name of the customer with the status.
- 4. APP The customer would have his account already logged on on the app, since it is a normal feature on apps. In this case, the customer would have to go to his profile and search for "My Orders" where it would be presented all of his orders, he would then have to click on the order of his choice and then the status and details would be included.

For *Track & Trace* the App solution could have a more appealing design for the customers and can be more attractive for younger generations that have a close relationship with this type of digital platform, however, it can be easily replaced by any other type of digital responses mentioned above.

- Product Information:
 - Email For this case, it would be a very simplistic idea, that is already done, by sending weekly newsletters to the customer's email. However, despite the newsletters are sent according to the customer's searches or purchases, it has

always a significant lack of personalization and organization, being that the customer cannot search for a specific product. The customer would only be informed about the products that worten would want to advertise in the newsletters.

- 2. Website Chatbot Chatbot could be used in this case, being that the customer would have only to access Worten's Website and initiate the chatbot. Once the customer would be in the chatbot, he could select an option of "Product Information" and then type the product they he wanted to know more about. The chatbot would have to be programed with all Worten's Products Information, such as characteristics or manual videos. This option would be more constrained since there is only so much one can put into a chatbot.
- 3. APP This solution would be the more attractive, simple and organized solution. The customer would have only to search for the product on an "Searching" tab and automatically the app would be linked to the same system as the website, reading all the information of the products announced on the website. Also, it would be more appealing in terms of visual organization and easiness on the search.

For *Product Information* the App solution is definitely the most interesting one. This case is rather different from Track&Trace being that the other solutions were also capable of presenting the same result only with the lack of design. However, for this example of *Product Information*, Email and Chatbot, are very limited plataforms that would not give the best response for this customer need.

- Notifications
 - SMS For this example, SMS is a rather easy method to notify the customer about promotions or alerts, it is efficient and already used (for promotion). However, it is not the most digital way to notify the customers and may have a lack of excellency.
 - 2. APP- For the app is already most common the notifications "bell" alerting the customer to future promotions, based on his searches and recent purchases, this way the notifications would be personalized for each customer. Also, the alerts on expiration dates for warranties, would be connected to the purchase date of products that would be recorded on a "My Purchases" tab, which would allow to activate this type of alerts related only to each customer.

For *Notifications* the App platform could be the most appropriate one. For this example, notifications are already sent through a digital platform (SMS) however, not all notifications can be sent through this platform. Being that if the used platform would be an APP this type of content could be more developed and provide to the customer a better response to his interests.

Concluding on the previous suggestions made for the three types of customer needs, it is possible to conclude that both *Product Information* and *Notifications* would have a more appealing response using when using an APP. The content would be more developed and could both satisfy the requests on being more digital with a modern design, but also, responding to the customer in an interactive way, with more consistent characteristics for each content.

Regarding *Track&Trace*, it can be identified that there are various methods to answer to this need, and however, an APP could have a better design and a more interactive method to respond, the other digital platforms would also be able to give the same response to the customer, being that the use of an APP would be a mere question of esthetics and interaction.

Concerning the suggestions above, in this research it is not being studied how to implement these suggestions, it is a chapter that provides Content Strategy ideas, which means that there is no information regarding costs, possible collaborations or methods to implement on the informatic system.

Chapter 6 - Conclusion

In the present master thesis, the problem under study concerns the creation of a Mobile Application for the Portuguese group SONAE, associated to the brand "*Worten*". In the document it was discussed the key concepts of the issue, a data analysis has been conducted and it was created a suggestion to implement the Mobile Application based on the made research.

During the study it was proposed to understand if the mobile application' creation would add value to the customer or if it was a pressured digital response.

With that, it was firstly studied in detail, all the literature that had already been done on the subject, regarding customer value and pressured digital responses. Additionally, it was investigated the proper ways to handle these concepts and how to use them for the issue.

Further, it was developed a national questionnaire sent to almost 2,000 people, with all the selected ideas from the company to assess the customer value of the proposed mobile application. Further, the obtained results were discussed and there was a decision-making about the mobile application' value, that is going to be summarized on this chapter.

To conclude the thesis, it is discussed the limitations of the present research.

6.1 Solution of the current problem

The current solution to the problem was based on two pillars- the first one was the value proposition for the mobile application made by the company. The second one was related with the customer value assessed on the questionnaires.

The proposed value for the mobile application related with the service concern, was to improve the response of home services, and attract the segment of digital customers.

Concerning the questionnaires to assess the Customer Value of the mobile application it can be concluded that the information is trustworthy being that, it considers both genders, groups of ages from under 18 years old to older than 55 years old. The questioner was divided into four segments - *Respondents Profile*; *Mobile Applications usability*; *Popular Mobile Applications* and *Worten's Whished Content* (for the Mobile Application). The first segment was to understand the identity of the respondents, to later cross data such as age, gender or region with the given answers. The second and third segment were used to understand the relation of the respondents with mobile applications as with to further study which Apps were considered a success and with which features. The last segment was meant to figure out the customer needs and preferences, as also to assess the given value to each idea provided by the company for the mobile application.

Regarding the results of *Worten's Whished Content* it was analyzed that the most relevant type of content for the consumer was "Product Content" such as *Product Information* and *Notifications* (related with Product). *Track & Trace* was also a relevant feature and the only that was related with "Service Content".

Concluding on the questionnaires results, as previously mentioned on chapter 4, it is possible to realize that although home services are already starting to enter at Worten's market, it is still, not yet, most valued by the consumers. Resulting that, if the company does not have in contemplation the feedback from the consumers, it may be considered that the creation of the mobile application will be a mere pressured digital response action.

6.2 Research Limitations

Concerning the limitations of this research, it is important to mention that during the elaboration of this thesis there were found three major limitations.

The first one is related with the literature review, being that the creation of mobile applications is yet a topic being studied with no consolidated information. The first smartphone was release in 1994, being that only after that year did this topic emerged, which is very different from other topics such as Strategy or Customer Value that have been researched for way longer than Mobile Applications and Digital responses. Also finding a conceptual reference framework to insert on the literature review was impossible due to the lack of literature review of the theme

Additionally, regarding the questionnaire, there could had been more questions on it, to provide more information that would have been relevant for the present research, however, we could not extend on the length of the questioner for the obvious reason that the respondents would lose interest and would not complete it, which would cause a greater lack of information.

The third limitation was a rather relevant one, being that on January the present project was considered to expensive and moved to the budget of the year 2020, which meant that all researches of the project were put into "*stand-by*", and that the research had to be concluded with no help from the company.

Bibliography

- Arouca, M. O. (2017, October). The strategy of implementation of a Shared Services Center by. Retrieved January 2019, from https://repositorio.iscteiul.pt/bitstream/10071/16279/1/CD1%20TESE%20MAFALDA%20AROUCA%20pdf.pdf
- Gale, B. T. (1994). Managing Customer Value: Creating Quality and Service That Customers Can See. Retrieved September 2019, from https://books.google.pt/books?hl=pt-PT&lr=&id=lCdyJy8vg94C&oi=fnd&pg=PR11&dq=gale+1994+managing+customer+value&ots =ebQWlj7JY9&sig=lyF9dmmSSPKbltd9EQbjFtFcER8&redir_esc=y#v=onepage&q&f=false
- Graf, A., & Maas, P. (2008, February). CUSTOMER VALUE FROM A CUSTOMER PERSPECTIVE. Retrieved August 2019, from https://www.researchgate.net/publication/225998618_Customer_value_from_a_customer _perspective_A_comprehensive_review
- Keränen, J., & Jalkala, A. (2013). *Towards a framework of customer value assessment in B2B markets:*. doi:doi.org/10.1016/j.indmarman.2013.06.010
- Llewellyn, R. (2016). What's Your Digital Response Strategy? Retrieved october 24, 2018, from https://robllewellyn.com/digital-response-strategy/
- Mahajan, G. (2016, january 14). *What is Customer Value and How Can You Create It?* Retrieved october 24, 2018, from http://customerthink.com/what-is-customer-value-and-how-can-you-create-it/
- McFarlane, D. A. (2013). The Strategic Importance of Customer Value. *Atlantic Marketing Journal,* 2(1), 62-75. Retrieved october 23, 2018, from https://pdfs.semanticscholar.org/4abf/13522ff0af112155fbb9389e2f98d4c4c67d.pdf
- McKinsey & Company. (2015). *What 'digital' really means*. Retrieved June 2019, from https://www.mckinsey.com/industries/high-tech/our-insights/what-digital-really-means
- Porter, M. (1987). From Competitive Advantage to Corporate Strategy. Retrieved January 2019, from https://www.academia.edu/6689159/From_competitive_advantage_to_corporate_strategy
- Spiteria, J. M., & Dion, P. A. (2004). Customer value, overall satisfaction, end-user loyalty, and market. *Industrial Marketing Management, 33*, 675-687. doi:doi:10.1016/j.indmarman.2004.03.005
- The Consumer Intelligence Lab. (2018). Eu, Consumidor Digital. Portugal. Retrieved january 2019, from http://www.roi.pt/website/conhecimento/biblioteca/
- Thirumale, M. (2019). Why A Cloud Native App Platform Is The New Must-Have For Agile Businesses. Forbes Technology Council. Retrieved May 2019, from https://www.forbes.com/sites/forbestechcouncil/2019/05/15/why-a-cloud-native-appplatform-is-the-new-must-have-for-agile-businesses/#7ad08db31883
- Wadsworth, S. (2019). *How Mobile Apps Are Driving A Resurgence In Advertising Creative.* Forbes Agency Council. Retrieved March 2019, from

https://www.forbes.com/sites/forbesagencycouncil/2019/02/21/how-mobile-apps-aredriving-a-resurgence-in-advertising-creative/#3d5c5b912580

- Weinstein, A. (2012). Superior customer value: Strategies for winning and. CRC Press-Taylor & Francis. Retrieved October 20, 2018
- Woodruff, R. B. (1997). Customer Value: The Next Source for Competitive Advantage. *Journal of the Academy of Marketing Science, 25*(2). Retrieved August 30, 2019, from https://link.springer.com/article/10.1007%2FBF02894350
- Worten. (2018). Worten Serviços. Retrieved 2018, from Worten: https://www.worten.pt/servicosworten

Appendix – Questioner

This Questionnaire is presented in Portuguese, since it was made only to Portuguese people:

worten
APP WORTEN
A Worten pretende desenvolver uma APP no intuito de ajudar e simplificar o acesso à informação por parte dos seus clientes. Por forma a incluir as funcionalidades mais úteis, gostaríamos de contar com a sua opinião. Agradecemos desde já o seu precioso contributo.
* 1. Indique o seu género:
E Feminino
Masculino
* 2. Indique a região onde reside
🗌 Lisboa
Porto
Norte
Centro
Alentejo
Algarve
Ilhas

* 3. Indique a sua idade
menos de 18 anos
18 a 24 anos
25 a 30 anos
31 a 34 anos
35 a 44 anos
45 a 54 anos
mais de 55 anos
* 4. Ao dia de hoje, tem alguma aplicação instalada no seu telemóvel?
Sim
Não
5. Quais das seguintes?
Epark (Emel)
Glovo
Whatsapp
Uber ou Uber eat
Waze
MB Way
Outro (especifique)
* 6. Pensando agora numa App Worten. Da seguinte lista de conteúdos, identifique <u>3 conjuntos de funcionalidades</u> que gostaria de ver incluídas:
Acompanhamento de processos em curso (encomendas, entregas, reparações,) e acesso a históricos de compras ou serviços prestados
Possibilidade contactar com um assistente via chat em direto
Informação sobre produtos (disponibilidade em loja, funcionalidades, QR code, manuais de instrução, avaliações, encomenda de produtos fora de gama, consulta de acessórios compatíveis, realidade aumentada/visualizar o produto na sua casa,)
Acesso a avaliações e possibilidade de avaliar (atendimento de um colaborador, espaço de uma loja, produtos e serviços prestados)
Localização de lojas e localização de produtos no espaço de loja (corredor, prateleira,)
Receber notificações (promoções de artigos do seu interesse, agendamentos, artigos prontos para levantar, disponibilidade de artigos, necessidade de manutenção de um equipamento, garantias de produtos a terminar,)

🔲 Agendamentos com acesso a disponibilidades de agenda (atendimento, reparações, entregas ou levantamentos,...)

🗌 Acesso a um leilão diário e exclusivo da app

🔲 Diagnósticos de avaria assistidos online e tutoriais de instalação ou reparação

* 7. Ordena a lista de conteúdos sobre **informação de produtos**, por ordem de interesse (1 mais interessante até 8 menos interessante)

≣	Criação de wishlist
≣	Manuais de instrução
≣	Identificação de acessórios compatíveis com determinados produtos
≡	Encomenda de produtos fora de gama
≣	Disponibilidade em loja
≣	Vídeos do produto a funcionar (tipo "unboxing")
≣	Acesso a avaliações
≡	Realidade aumentada permitindo visualizar um produto na sua casa

* 8. Ordena as <u>notificações</u> que gostaria de receber por ordem de interesse (1 mais interessante até 7 menos interessante)

≡	Alertas de promoções
≣	Alertas de fins de garantia dos seus equipamentos
≡	Alertas de agendamento
≣	Alertas de necessidade de manutenção dos seus equipamentos
≡	Artigos prontos para levantar / reservas disponíveis
	Promoções de artigos do seu interesse
≣	Disponibilidade de artigos

* 9. Tem alguma sugestão de funcionalidade que acharia interessante incluir numa APP Worten?

O questionário terminou. Muito obrigado pela sua disponibilidade!

