

**MOBILE APPLICATIONS AS AN INFLUENCER TOOL IN
THE DECISION-MAKING PROCESS OF WINE
PURCHASING – APP DECO VINHOS**

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ABSTRACT

The master project aimed to gather knowledge about the decision-making process and mobile applications (app) as a comparison tool, to propose a strategy to a restructuring proposal to app Deco Vinhos, by Deco Proteste.

This application is associated with Wine Guide in paper format which, itself, is intended to a elder target and less able audience to resort to mobile applications in the decision-making process of wine purchasing.

Therefore, it was necessary to find a strategy which revealed the application potential to a possible target.

The project started with the collection and analysis of the available literature on the topics of digitalisation and mobile applications, decision-making process and comparison tools as influencers, and mobile wine applications market.

An external analysis has been done, along with an analysis of the mobile application market and an internal analysis of the app. To sustain the results and to consolidate the restructuring proposal, were made interviews to key-informants who were involved in the app development.

The project expectation is to present restructuring proposal focused on three main areas: at the product level, subscription model and communication plan, to meet the target's needs, and this way increase the number of users.

Key-Words: Mobile Application, Decision-making process; Comparison tools.

JEL: M31

RESUMO

O projeto de mestrado teve como objetivo reunir conhecimento sobre o processo de tomada de decisão e as aplicações (app) mobile como ferramentas de comparação, de forma a propor uma estratégia de reestruturação para a app Deco Vinhos, da Deco Proteste.

Esta aplicação está associada ao Guia de Vinhos em formato de papel que, por si só, se destina a um público mais envelhecido e com menos capacidades para recorrer a aplicações mobile no processo de tomada de decisão da compra de vinhos.

Deste modo, era necessário encontrar uma estratégia que desse a conhecer as potencialidades da aplicação a um possível público.

O projeto iniciou-se com a recolha e análise da literatura disponível relativa aos temas digitalização e aplicações mobile, processo de tomada de decisão e ferramentas de comparação como influenciadoras e mercado das aplicações mobile de vinho.

Também foi realizada uma análise da envolvente, do mercado das aplicações mobile e uma análise interna da aplicação. De forma a sustentar os resultados e consolidar a proposta de reestruturação, foram elaboradas entrevistas a informantes chave que estiveram envolvidos no desenvolvimento da app.

A expectativa do projeto é apresentar uma estratégia de reestruturação focada em três áreas: a nível do produto, modelo de subscrição e plano de comunicação, de forma irem de encontro às necessidades do público alvo e, assim aumentar o número de utilizadores.

Palavras-Chave: Aplicação Mobile, Processo de tomada de decisão; Ferramentas de comparação.

JEL: M31

EXECUTIVE SUMMARY

App *Deco Vinhos* is a software that allows the user to access a several contents about wine as a description about the wine about characteristics, prices and point of sale. It is also possible to know where is the shop with more competitive prices near the user through geolocation service that triggers the mobile device. A year after its launched, the objectives of the app were not achieved in terms of number of users and a team was gathered to solve this problem and improve the app Deco Vinhos.

This way, the master project aims to propose a strategy to a restructuring proposal to app Deco Vinhos, which fits with the target that makes use of this type of technology in their purchase process. The main objectives are: to study the decision-making process and digitalisation subjects; to understand in which way the app can influence the decision-making process; to analyse and comprehend the mobile wine application market and concretely the app Deco Vinhos competitive positioning, and to develop a realistic strategy to improve the app.

To accomplish these objectives, the project started with gathering knowledge about the decision-making process and mobile applications (app) as a comparison tools, then a collection and analysis of the available literature on the topics of digitalisation and mobile applications, decision-making process and comparison tools as influencers, and wine sector.

It has also been studied the results of the Usability Test and the Satisfaction Tests to understand the user's feedback about the app. In-depth interviews have been done to key-informants from Deco Proteste that were involved in the app development to comprehend several aspects of the app performance. Lastly, has been conducted a competitive intelligence analysis to pursue updated information on the overall market, the specific industry, its competitors and its consumers.

The main conclusions perceived from the information collected were the Wine Guide and the App, although they are part of the same subscription, the products have different targets, so this is the main problem for the lack of app users. The Wine Guide target is elder people and less able to follow the digital trends.

From the several sources mentioned before allowed to develop and sustain a proposal strategy focused on three fields: product, subscription model, and communication plan. A set of actions under this three fields will be proposed to improve the app, increasing the number of users by meeting the target's needs.

INTRODUCTION

Problem definition

The advances in technology are determining significant changes in many aspects of our lives, so is essential for business learning how to consumers think and gather efforts to embrace these digital services. Furthermore, the increase of information aggregation and price comparison tools allow consumers to make faster and better choices regarding all the real-time information they have access through mobile.

Mobile has become the most used channel to access, not only digital media but also information in general. The number of smartphones has increased in Portugal and, consequently, the use of mobile applications has also increased. Specifically, the mobile wine applications, have changed the way consumers make purchase decisions offering wine consumers the ability to learn more about wine, discover new wines, record their own tasting notes and have access to the prices, anytime and anywhere. The wine market is very complex in its purchase decision due to the heterogeneity of the products and their attributes in the moment of purchasing. The price and comparison tools are beneficial in this decision-making process since they are essential instruments to provide information in a transparent way so that they can compare several ranges of products.

To follow the market trends, and as a way to offer a new product to the Wine Guide subscribers, Deco Proteste launched an App, Deco Vinhos, in October 2015, promoted by a communication campaign. App Deco Vinhos allows the user to access a several contents about wine as a description about the wine about characteristics, prices and point of sale. It is also possible to know where is the shop with more competitive prices near the user through geolocation service that triggers the mobile device.

One year later, a follow-up of the app was requested, and the results showed the objectives of the app regarding the number of downloads and the number of users was not achieved. The conversation rate from Wine Guide to the App was low. One of the main reasons is because app's usage profile is different from the guide's target. One year after, only 30% of wine guide subscribers knew the app, and only 6% used it. A team of people was gathered to evaluate this problem and propose solutions. As a collaborator of Deco Proteste, from July to December 2016, I was part of that team. With this Master Thesis, it is intended to propose a restructure of the App Deco Vinhos that allows achieving an increase in its notoriety and the number of users, in a second release.

The project objectives

With the present research, it is intended to develop an academic study, an In-Company Project format, whose objective is to outline a proposal for a new model of the restructuring of the app Deco Vinhos.

The master project would be considered successful if accomplishes the following objectives:

- To study the decision-making process and digitalisation subjects
- To understand in which way the app can influence the decision-making process
- To analyse and comprehend the mobile wine application market and concretely the app Deco Vinhos competitive positioning
- To develop a realistic strategy to improve the App Deco Vinhos

1. LITERATURE REVIEW

1.1 Digitalisation: a digital transformation of society, business and consumer

According to Gartner IT Glossary (Gartner Group, 2016), “digitalisation is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities”. Marco Cigaina (2016), Service Innovation Program Manager of SAP, further adds that digitalisation has the aim of engaging people to address their particular needs through technology in the business.

The advances in digital technology are determining significant and unprecedented changes in many aspects of our social and economic lives (Corrocher & Ordanini, 2002). Nowadays, one of the most critical issues is the digitalisation of society.

The emerging phenomena like connectivity, platforms, *algorithmic power*¹, and *big data*² have been the most transformative power in the history of technology. This evolution has been leading to great opportunities, but also to significant challenges. It means, the vast amount of data by devices as well users and their behaviour, creates compelling opportunities for innovative services and products. On the other hand, it also raises important issues regarding integrity and safety due to the tracking of citizens and customers. Regarding this, it is crucial to take opportunities and handle the threat of this digitalisation process to have a sustainable and safe digital society that is capable of innovating and competing (Larsson, 2016).

Digitalisation is progressively essential for the economy and society as a whole. According to Marco Cigaina (2016), several recent studies present “that companies that are more mature in their adoption of digital computing technologies have better performance in revenue, profitability, and market capitalisation”. Furthermore, there is a critical implication of entire industries might be disrupted due to other industry boundaries are getting digitally blurred by other sectors.

Nevertheless, in a connected world of nowadays, it is essential for businesses learning how consumers think and to gather efforts to embrace these digital services (Mitchell, 2013). As an example, it is possible to perceive this technological advancement in mobile devices and the growth of wireless connections in the way that consumers shop (Wong et al., 2012). Currently, products are gradually examined, compared, purchased and paid for on the Internet and through

¹ **Algorithmic power:** The power of having a formula for solving a problem.

² **Big Data:** It is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation. (<http://www.gartner.com/it-glossary/big-data>)

mobile services. Consumption-related information is disseminated and discussed on blogs and forums, in which consumers self-organised themselves on social networking sites, and take active roles in production methods through crowd surfing and other technologies (Molesworth & Denegri-Knott, 2012) (Lehdonvirta & Ernkvist, 2011). To the process of finding and sharing information, it is called *digital collaboration*. The use of technology allows us to, not only discover, produce and market information but also to bring all these resources together to effortlessly share the ideas already synthesised, being more than just a way to socialise.

Furthermore, the use of social media also has changed the way that customers interact with companies. Technology has become a fundamental part of everybody's daily life and is pushing the front line of business towards the consumer (Cigaina, 2016).

Riss argues that digitalisation took customer-centricity to the next level. Nowadays, consumers make faster and better choices due to the vast amount of information they gather. This information led them to get better integrated and more convenient solutions (Cigaina, 2016). The increase of information aggregation and price comparison contributed to this phenomenon. Consumers nowadays have real-time mobile access to data. For example, the consumer has "real-time access to competitive pricing information simply by scanning a product barcode into their mobile phone and reading this information through an application such as Red Laser. In this way price transparency is increasing as consumers can compare the prices of products on the move", giving them power (Ernst & Young LLP, 2011).

Nevertheless, this digital change also faces challenges. Nowadays due to the share of information, consumers trust each other more than they trust corporations and/or brands [83% of consumers trust peer recommendations versus 63% who trust traditional advertisements on TV (Nielsen, 2015)]. Thus, brands are losing the information monopoly, so companies need to be conscious of the need to achieve collaborative and cross-channel engagement with their customers. However, it is crucial to pay attention and improve this lack of communication, not just to the customers, but also to suppliers and employees (Ernst & Young LLP, 2011).

1.1.1 Mobile Web

Mobile web refers to the usage of browser-based Internet services from handheld mobile devices, like smartphones, through a mobile or other wireless network. Nowadays, mobile is the only media channel that is growing, representing 65% of digital media time, while the desktop is becoming a "secondary touch point" for an growing number of digital users (Lella

& Lipsman, 2016). This means that companies must increase their presence in this channel to follow the consumer trends.

Mobile internet has changed our lives. According to Marktest (2017), the number of smartphones' owners is still increasing in Portugal. The Marktest's study also refers that there are around 6000 thousand users of smartphones, which correspond to a 68% of cellphone' users in Portugal, with more than ten years old. The smartphone penetration has increased 89% since April 2013. In Portugal, the use of smartphone exceeded the use of feature phone in October 2014. Mobile allows people to access information everywhere (space) and anytime (mobility). Mobile services have become more popular, and people can use it virtually anywhere, and it is crucial to attract them in some way.

According to Marktest (2017), in March 2017, 59% of the audited traffic was generated by desktop or laptops, and the mobile equipment generated 41% of the traffic. Among these devices, accesses by smartphone represented 35% of monthly consumption, while tablets accounted for 6% of page views. Compared to the same homologous period of the last year, smartphones had the highest increased (11%), and desktops/laptops have lost 12 percentage points.

Concerning usage to shopping, according to Nielsen (2016), 52% of the Portuguese inquirers referred that use a *mobile connected device to look up product information when shopping*, while also 52% said that use a mobile connected device to compare prices when shopping being these two reasons the ones which have more dominance when shopping.

It is essential to have in mind that customers are not motivated by attributes, but rather by the benefits of those attributes bring to them (Liang & Wen-Hung, 2004). It is also important to realise that different customers attach different value components of perceived value to these benefits. So, the strategies adopted should follow this consumer' motivation.

1.1.2 Mobile Applications

Mobile applications operate outside of mobile web browser and are available through application distribution platforms, which are typically managed by the owner of the mobile operating system, such as App Store, Google Play and Windows Phone Store.

Mobile purchasing applications are thought to be future of the online consumer buying experience (Chang, 2015). However, before deciding whether a brand needs a mobile app or

not, it is crucial to understand the numerous mobile opportunities available for brands to connect with consumers whenever and wherever they use it.

According to Bellman *et al.* (2011), there is a high level of user engagement and the positive impact that this engagement has on user's attitude toward the sponsoring brand, which reflects a reason to marketers have a high interest in mobile applications. The use of mobile apps can have a positive, persuasive impact for a brand through increasing interest in the brand and the brand's category product.

The global market has experienced a remarkable increase in the number of smartphone users. Moreover, consequently, this growth has led to an increase in the number of apps that consumers use on their phones. The developer population has also boomed. The *Apple App Store* claims close 2 million of the apps while Google Play has over 2.2 million apps, according to comScore report (Lella & Lipsman, 2016). Moreover, this number is expected to increase even more in the near future. Apps have been gaining popularity in the business world. The usage of mobile apps is generating many revenues for enterprises. The Global Mobile Report (ComScore, 2017) predicts over 268 billion mobile downloads will generate an income of \$77 billion in 2017. In 2014, the estimated global mobile app revenue \$35 billion, \$45 billion in 2015, and \$58 billion in 2016. The report mentioned previously shows that “people spend 43% of their mobile app time on games, 26% on social networking, 10% on entertainment, 10% on utilities, 2% on news and productivity, 1% on health fitness and lifestyle, and 5% on others”. However, aggregator apps are likely to move in the vanguard. These apps put together content from multiple online sources and compile it into “one easy-to-follow interface”. The app *Deco Vinhos* can be considered an app that aggregates content from several brand wines and several stores. These types of apps are a perfect tool for those who do not have the time or desire to visit a vast number or have several apps on their smartphones, becoming convenient and improving the shopping experience.

The Global Mobile Report (2017) also indicates that people between 18 and 24 years of age use more mobile apps than any other group. They are followed closely by 25 to 34 years, 35 to 44 years, 45 to 54 years, and then over 55 years, respectively. The implication is that businesses that use mobile applications will target the middle generation more than the younger and older generations.

According to Ericsson Mobility Report (2017), that illustrates the tremendous evolution of mobile technology, the total traffic in mobile networks increased by 70% between the first

quarter of 2016 and the first quarter of 2017. Mobile subscriptions are increasing at around 4% per year, reaching 7.6 billion in the first quarter of 2017. Mobile broadband (wireless Internet access usually through a portable modem) subscriptions are also growing by around 25% year-on-year. Currently, the total number of mobile broadband subscriptions is around 4.6 billion. It is expected to reach 9 billion mobile subscriptions, 8.3 billion mobile broadband subscriptions and 6.2 billion unique mobile subscribers in 2022. Mobile data traffic also continues to grow. Although the mobile web browsing traffic continues to decline, the traffic in apps is growing.

1.1.3 Wine Applications

Technology has changed the way consumers make purchase decisions, and so do the wine industry. Wine apps continue to expand offering wine lovers the ability to learn more about wine, to purchase wine directly, to discover new wines, and to record their own tasting notes of wines they have tried (Higgins, McGarry Wolf, & Wolf, 2014). According to founder and CEO of Vivino, Heini Zachariassen (2017), the numbers are astonishing. Wines worth more than 40 million Dollars have been sold through the mobile application, with around 425 million labels scanned, 72 million ratings and about 12 million bottles of wine rated since he launched the app. However, the wine industry worth \$300 billion and online part is still very insignificant, not only the e-commerce but also in terms of price comparison tools.

According to Lecat and Pelet (2011), wine apps with QR code reader may be “relevant for younger wine consumers that are making purchases out of convenience, who do not have a significant amount of wine knowledge and are more likely to be engaged electronically when compared to the more traditional wine purchaser”. It means that technology must be useful and must fulfil an unmet need in their daily routine.

Nevertheless, it is predicted that apps into the wine purchase decision is dependent on both the ease of use and the perceived usefulness of the technology (Pérez, Sánchez, Carnicer, & Jiménez, 2004).

1.2 Decision-making process of purchasing

A consumer purchase is a response to a problem, and some purchase decisions are more critical than others due to the different amount of effort that we put on them. Sometimes this decision-

making process is almost automatic based on very little information but, on the other hand, it also can take some time. It gets even more time-consuming and complicated with so many options from which to choose. One of the most significant problems for modern consumers is to have too many options, rather than have few options (Solomon, 2009). For example, we can face this problem in the sector of wine. According to Mick, Broniarczyk and Haidt (2004), this is called *consumer hyperchoice*, which is a condition where a large number of available options forces us to make repeated choices that may drain mental energy while decreasing our abilities to make a smart choice.

Regarding a rational perspective, we integrate as much information as possible to examine each alternative and make a satisfactory decision carefully. This point of view incorporates the economics of information approach that assumes that consumers gather as much data as the need to make an informed decision, as long as the process of gathering it is not too onerous or time-consuming (Hauser, Urban, & Weinberg, 1993).

1.2.1 Individual decision making

Solomon (2009) says that there are five steps in the decision-making process: (1) **problem recognition**, (2) **information search**, (3) **evaluation of alternatives**, (4) **product choice**, and (5) its **outcomes**. However, consumers do not always follow these decision-making process steps in our purchases. One example is the momentum purchase that occurs when the initial purchase provides a psychological impulse that enhances the purchase of a second, unrelated product (Dhar, Huber, & Khan, 2007).

According to Solomon (2009), the first step of the decision-making process starts with the (1) **problem recognition** when we see a significant difference between our current state of affairs and some state. To get at that desired (ideal) state from the starting point, we need to solve a problem which may differ regarding measure and complexity. Bruner and Pomazal (1988) claim that a problem can arise in one of two ways: *need recognition* or *opportunity recognition*. Need recognition could happen whenever the quality of an actual state decreases. It could happen, for example, whenever a person runs out of a product or buys a wrong product that doesn't satisfy their needs or even when she realises she has a new need or desire. On the other hand, need recognition often occurs when we are exposed to different or better-quality products. The opportunity recognition takes place when we move our ideal state upward. For example, when a person craves a newer, flashier car.

The second step of the decision-making process is the (2) **information search**. According to Strebels, Erdem and Swait (2004) “is the process by which we survey the environment for appropriate data to make a reasonable decision”. Due to the nature of the information search, it might be a *prepurchase search* – search the marketplace for an accurate information - or an *ongoing search* – desire to be up to date on what is happening in the marketplace just for fun. The information sources could be *internal* or *external*. Whenever the information comes from us (our memory has knowledge about products), it is called internal search. However, sometimes we need more than just our knowledge of products, so we need to obtain information through external sources like advertisements, friends or experts, for example (Solomon, 2009). The information search could be a result of a *direct learning* in which we have already search for information on a previous occasion or an *incidental learning* which is a more passive way of acquiring information. The product may not interest us today, but we could be exposed to advertising, sales promotion or any other way to catch our attention (G. Punj, 1987).

Nevertheless, consumers do not always search rationally before making choices. The amount of information that we search for most products is unexpectedly small. According to Gobb and Hoyer (1985) “lower-income shoppers, who have more to lose by making a bad purchase, search less before buying than more affluent people do”.

Additionally, consumers also want to try new things, so they switch between brands, even if their current brand satisfies their needs. This process is named *variety seeking* (Ratner, Kahn, & Kahneman, 1999) and it is considered a way to stimulation or to reduce boredom through craving new alternatives and usually occurs when consumers are in a good mood. According to Inman (2001), “in the case of food and beverages, variety seeking can occur as a result of sensory-specific satiety”.

Regarding the amount of information search, it increases with the importance of the purchase, the needed of learning or with the facility of obtaining the information (G. N. Punj & Staelin, 1983). Bettman and Park (1980) say that having previous knowledge about the product is related to the amount of information that we search. “Product experts and novices use very different procedures during decision-making. So, search tends to be greatest among those consumers who are moderately knowledgeable about the product.”

The inverted-U relationship between knowledge and external search effort can explain that the type of search people with varying levels of expertise differs. Experts have a better sense of which information is relevant for the purchase – *selective search* – but, on the other hand,

novices are more likely to rely on the opinion of other people and on “unfunctional attributes” like price and packaging.

Following the information search step of the decision-making process, the consumer must (3) **evaluate the alternatives**. In some cases, the consumer has several options to choose. Therefore, the consumer must decide which criteria is relevant to its choice, how he narrow the alternatives to a fair number of options and at the end which product he will choose. The consideration set is the group of alternatives that the consumer takes into account. It means the alternatives the consumer knows and consider. To process the information, consumers evaluate products based on what they previously know about a particular product or other similar ones. Consumers cognitively represent this information in a *knowledge structure*, which is “a set of beliefs and the way we organise these beliefs in our minds” (Alba & Hutchinson, 1987). According to Rosch and Lloyd (1978), we represent a product in a cognitive structure at one of three levels. Cognitive categories are organised into taxonomies that are based on class inclusion and degree of generality, in three levels of categorisation: *superordinate level*, *basic level* and *subordinate level*. The superordinate categories are found at the top, and they show a high degree of generality and give a very abstract information. These categories include basic level categories. The basic level category is typically the most useful to classify products because we tend to group the items together that have more in common with each other creating a range of alternatives. Finally, the subordinate level categories show a low degree of generality and a low degree of class inclusion. These categories often include individual brands and specific features.

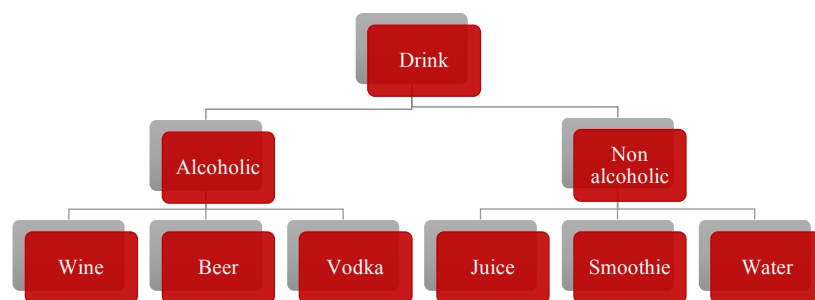


Figure 1 –Levels of abstraction in drink categories

Source: Adapted from Solomon

Once we consider the several and most relevant options in a category, we have to choose one, either through a straightforward and quick strategy or a more prolonged process that takes more

attention. For this, we use *evaluative criteria* which are the dimensions that consumer uses to judge the merits of competing options. It can be several criteria, ranging from functional attributes to experimental ones, and they can have different weight in the decision process, especially when products differ more from another, rather when the alternatives are similar. “Determinant attributes are the features we actually use to differentiate among our choices” (Solomon, 2009).

One wealthy source of information is the Internet, where is easy to access to different information about a product or brand in seconds. However, due to the amount of information, *cybermediary* is useful to organise and filter the information so that intermediaries can identify and evaluate alternatives more efficiently (Porter, 1985). *Cybermediaries* can be present by different forms such: directories and portals such *Yahoo!*; website evaluators; and forums, fan clubs and groups for discussions.

Intelligent agents are sophisticated software programs that use collaborative filtering technologies to learn from past user behaviour to recommend new purchases.

However, we do not always put such effort into our decisions. We used to resort to *heuristics*, which are “mental rules-of-thumb [assumptions] that lead to a speedy decision” (Baron, Byrne, & Suls, 1989) to simplify and rush our choices. Choosing a well-known brand name because of its name is a powerful heuristic. Inertia is one of the causes why so many consumers always choose the same brand because they buy it for habit and require less effort. On the other hand, brand loyalty is also a reason why consumers repeat the same purchases several times due to the bond that he creates with the brand, like a passion.

Solomon (2009) argues that after evaluating the alternatives, it is time to make the (4) **final choice of the product**. We use different rules to choose among competing products depending on the complexity and importance of choice. Either we can use simple heuristics, or we can search carefully among several alternatives. Depending on the effort of thinking that we put on the decision we can describe them as *compensatory* or *noncompensatory* rules.

- Noncompensatory decision rules – when we think that another attribute can compensate a low standing attribute. It means that we eliminate all the options that do not meet our basic standards.
 - The Lexicographic Rule: When using this rule, the consumer selects the brand that is the best on the most essential attribute.

- The Elimination-by-Aspects Rule: The consumer also evaluates brands on the most important attribute
- The Conjunctive Rule: This rule processes by brands. The decision maker establishes cutoffs for each attribute, and the brand is chosen if it meets all the cutoffs. If it fails one of the cutoffs, the consumer will reject it.
- Compensatory decision rules – On the opposite of noncompensatory rules, this one gives a product a chance to make up for shortcomings. Consumers tend to be more involved with the purchase and put more effort on it.
 - Simple Additive Rule: Consumers chooses the alternative that has the most favourable attributes. Some of them may be not so important as others.
 - Weight Additive Rule: It is more complicated than Simple Additive Rule because it also takes into account the relative “importance of positively rated attributes, essentially multiplying brand ratings by importance weights”.

The app Deco Vinhos, in the decision-making process, could be useful in tow steps: in the **information search** and the **evaluation of the alternatives**. In the first one because the app provides information about a broader range of wine, such the quality and the prices practiced in several points of sales. The app also intervenes in the evaluation of the alternatives because it gives a ranking of the wines helping the consumers evaluating all the products available more efficiently.

1.2.2 Decision-making process of wine purchasing

The wine market is a very complex market in its purchase decision due to the heterogeneity of the products and their attributes, and also due to the difficulty in identifying these attributes in the moment of purchasing. Furthermore, the process of choosing wines faces some complexity due to the asymmetry of information existing (L. Lockshin & Hall, 2003).

Trying to overcome this problem, the consumer uses his constructions of life experience, knowledge (objective and subjective) and several external information sources. Nevertheless, (Lai, 1991) says that this information is influenced by the occasion of purchase and argues that the occasion influences the range of brands to analyse, the depth of purchase, the type of information collected, and the budget.

On the other hand, Ehrenberg (1988) says the brand itself is the most critical issue in the decision-making. According to these authors, although the trend is to present even more brand

names, especially in *The New World*³, several factors influence the purchasing. Some of these factors are the region, sub-region and country of origin, year of harvest, type of vine variety, producer or trader, winemaker and vineyard.

According to Gluckman (1990), the wine decision-making process has been changed to a more complex situation, involving the evaluation of attributes related to the product during the purchase. Furthermore, this author refers that the attributes can be the colour of the wine, the type of vine varieties, the price, the region, the prizes awarded, the brand, the packaging and the taste. Also, some of these attributes may interfere in the decision process, although they seem to have a superficial influence.

Lockshin and Hall (2003) define as extrinsic attributes the price, brand, packaging and shelf location, which can be modified without changing the quality of the product. The intrinsic attributes are directly related to the product, such as the grapes variety, alcohol content and wine's style.

However, until the bottle is opened and the wine is tasted, it is not possible to know the quality of the wine. Before this moment, the consumer must make a decision using the extrinsic attributes that are often used as heuristics cues to evaluate the quality of the wines, since the consumer does not have information about the quality of the product (Speed, 1998).

For this reason, the intrinsic quality of the wine is an attribute that is difficult to define and to communicate. The sensory analysis is subjective and difficult to measure. Moreover, the consumption occasion, like other circumstances, can influence the quality level. All these factors influence the decision-making process due to the complexity and the risk (Oczkowski, 2001).

The wine quality must be understood in perspective of perceived quality, which includes both the intrinsic and extrinsic attributes of the wine. According to Lockshin and Rhodus (1993), perceptions of its quality are based on the combined evaluation of intrinsic attributes, such as the grape variety, alcohol content, wine style, winemaker, and extrinsic attributes, such as price, bottle, labels and brand.

The level of consumers' knowledge and involvement with the product are also important factors to consider understanding the decision process of buying wine. In fact, they count to different intensities in the evaluation of the considered attributes.

³ The New World is one of the names used for the Earth's Western Hemisphere, specifically the Americas (including nearby islands such as those of the Caribbean and Bermuda).

Consumers, who have a high degree of involvement with the product use more complex data collection system than low-involvement consumers. The latter use simple strategies to reduce risk, such as choice of previously experienced or known brands, the recommendation of friends and wine journalists, advices of retail sales associates and bottle labels analysis (Barber, Almanza, & Donavan, 2006).

Knowing the criteria and understanding the evaluation process made by consumers is therefore very important for producers to develop strategies for market orientation.

1.2.3 Influence in the decision-making process

As humans, we are social animals, and we all belong to groups which lead us to try to please others to fit in the group. This motivation to adopt the same behaviour is also reflected in consumer behaviours (Solomon, 2009).

A **reference group** is “an actual or imaginary individual or group conceived of having significant relevance upon an individual's evaluations, aspirations, or behaviour” (Park & Lessig, 1977) and can influence in three ways: informational, utilitarian, and value-expressive. However, these reference groups do not have the same influence for all types of products and consumption actions. The *influence power* may differ considering two dimensions: whether we will consume it privately or in public and whether if it is a luxury or necessity. As a rule, these reference groups have more influence in luxury purchasing that are visible to others. This behaviour is explained by the *social power* - “the capacity to alter the actions in others” (Gergen, 1985) - have on consumers. According to Solomon (2009), the social power can be distinguished in several classifications:

- **Referent power:** Try to imitate a person or a group that admires by copying the referent's behaviour.
- **Information power:** People with information power are able to influence consumer opinion just because she knows something other would like to know and they assume she has access to the “truth”.
- **Legitimate power:** Sometimes we give power by social agreements, like authority we give to some uniforms such police officers.
- **Expert power:** This power is given by the knowledge that a person or group have about a given area.

- **Reward power:** An individual or group has reward power when has the means to provide positive reinforcement.
- **Coercive Power:** It happens when a person has the ability to influence other by a social or physical intimidation.

Deco Proteste is considered a reference group with **information** and **expert power** since they influence to transmit trustable knowledge and have know-how about the products to provide reliable information about them. In particular, app Deco Vinhos has both powers regarding wine purchasing decision.

1.2.4 Opinion Leadership

An **opinion leader** is someone who has in-depth knowledge about a product and whose advice others seriously. This person is usually able to influence other's attitudes and behaviours so they are considered valuable information sources (Rogers, 1983). Besides the *expert power* due to their competences, they also have *knowledge power* since they are capable of prescreening, evaluate, and synthesise the product information (Menzel, 1981). Opinion leaders are not only socially active and highly interconnected in their communities (Venkatraman, 1989), but they also have their offices in the communities' groups/clubs so they can stand out socially and be the owner of *legitimate power*. Opinion leaders also have *referent power* since they tend to be similar to the consumer regarding values and beliefs. Opinion leaders use to be the first ones buying the products so that way the risk can be reduced for the consumers. They also are considered more credible because they not focus on the positive aspects of the product but also in the negative ones.

Due to all the previous reasons mentioned before opinion leaders can assume a particular impact on group members' attitudes and behaviour. However, it was difficult to find a generalised opinion leader that his opinion is credible in a vast range categories of purchases. Usually, opinion leaders are monomorphic, which means they are experts in a specific and limited field (Merton, 1957).

1.2.5 Price and Product Comparison Tools

Price Comparing Tool (PCT) is designated as the digital content developed to be used by consumers principally to compare products and services online (ACER, 2015). These tools are

considered essential instruments to provide information to consumers in a clear and transparent way.

On the other hand, Comparison Shopping Engines (CSE) give e-commerce merchants the opportunity to attract new consumers, increase sales, and go face-to-face against the competition. These tools, in response to a shopper's search request, collect product information, including pricing, from participating retailers and the display that collective information on a single results page. This allows sellers to put their products in front of very interest buyers, even though comparison shopping engine website owners do not offer the products themselves, they may receive a commission if their efforts help turn a profit for an online store. For the consumer, the advantage is that they can compare merchandise prices without having to perform extensive searches themselves. According to Andrew Meola (2016), almost 40% of worldwide e-commerce traffic in January 2016 came from comparison search engines, while 35% came from direct search through the retailer's site. This search can be organic (all listings of any search query) or paid (promoted listings and ads on search results pages).

Nevertheless, it is essential to consider that, while the online sales are growing, 90% of consumer purchases are still made at a retail store. ROBO – Research Online, Buy Offline, is a consumer behaviour where they resort to search engines, blog posts, reviews, and others to help them in the decision-making process. Once they search relevant information online and qualify their purchase decisions, they go to a store to make the purchase. Usually, consumers use ROBO for major purchases (Forbes Corporate Communications, 2016).

1.2.6 User Reviews and Power of Recommendation

While consumers have always had the power to make their own purchase decisions, now they also have gained the power to influence what others buy, mostly empowered by social networks and digital devices (Perkins & Fenech, 2014).

Besides information about the products and prices in Comparison Search Engines, the user reviews have a high power in the purchasing decision. Even though user reviews have huge differences regarding thoroughness and comprehensibility, they have a powerful effect on the behaviour of the audience. According to a survey by BrightLocal (2014), 88% of consumers trust online reviews as much as personal recommendation, and it is important to consider the online reviews are posted by total strangers.

Consumers have become not only critics but also creators since the digital revolution has given additional power to the consumer. Besides all information available and a vast range of choices, the decision-making is becoming more complex. Nevertheless, consumers have found ways to deal with the available choices through social media and comparison search engines to notify their decisions and exert their power. This has led consumers to look for inspiration by searching for other people social media profiles instead of being inspired by brands through the traditional methods of advertising. Consider the post-purchase, consumers not only want to share their point of view but also want to be involved in the product development (Perkins & Fenech, 2014).

The challenge for the business is to respond and meet the consumers' expectations and find a way to engage with them. For this, business needs to understand their behaviours and be more transparent in the relationship with consumers.

1.3 Wine

The wine production has always been a tradition in Portugal (see Annex A – Wine History in Portugal), represented significant marks along our History. The wine sector is significant, not only, due to its economic value that creates, but also due to the role, it plays socially and regarding conservation of the environment. This connection and the tradition have influenced since very years ago the way Portuguese people perceps the wine and the way people consume it. For this reason, it is important to describe some marks of wine sector history to explain how wine it is part of the Portuguese culture.

1.3.1 Wine Sector

Portugal is a wine-producing southwestern European country that has one of the world's highest per capita alcohol intakes, which is mainly characterised by a daily wine consumption during meals (Marques-Vidal & Dias, 2005). According to OIV – International Organisation of Vine and Wine (2017), Portugal leads the world ranking in wine consumption with an average of 54 litres per capita, followed by France (51.8 litres per capita) and Italy (41.5 litres per capita). In the ranking of production, Portugal appears in the 11th place, with 6 million hectoliters. On export, Portugal appears in the 9th place in volume and 10th in value, with 2.8 million hectoliters and 734 million euros in 2016, respectively.

Regarding trends and determinants of alcohol consumption in the current Portuguese population, there is insufficient information. In a cross-sectional studies conducted by Pedro Marques-Vidal and Carlos Matias Dias (2005), “among drinkers, the most frequently consumed alcoholic beverage was wine, followed by beer, whiskey, and Port wine” but this pattern of alcohol consumption is changing: “the prevalence of drinkers is decreasing, and young generations are shifting from wine to beer and spirits”.

Brunner and Siegrist (2011), argued that there is a trade-off in the determinants regarding consumption and spending: “Consumers who pay more attention to bargains drink more wine but pay less for it. Consumers who tend to drink to make themselves feel comfortable consume more at a lower price per bottle. Older respondents also consume more and spend less on wine. Finally, consumers who drink wine for an intellectual challenge consume less and spend more.”

1.3.2 Wine as a social pattern involvement – Drinking wine as a cultural behaviour

Drinking culture refers to the customs and practices associated with the consumption of alcoholic beverages. Although alcoholic beverages and social attitudes toward drinking vary around the world, the wine has evolved as part of our life, culture and diet since a very long time. As a symbol of European life, the role of wine has evolved, shifting from an important source of nutrition to a culture complement of food and social life compatible with a healthy lifestyle. Most European cultures consider wine a refined choice, a view which is consistent with moderate consumption.

When we are trying to understand the relation between alcohol and human behaviour there are, not only several sociocultural variants but also physiological and psychological variants to study. Individuals learn ways of drinking and ways of thinking about drinking as they learn about other things – it is an aspect of culture mostly determined by the drinking we observe.

According to Caroline Ritchie study (2007) about United Kingdom wine consumer, wine consumption is part of the lifestyle of most consumers. This way the consumption of wine is integrated into the culture of many individuals and became less elitist and more accessible to everyone, in general.

Lifestyles are associated with values and how to achieve them, expressed in several ways, including wine consumption. This is considered a way to segment the consumers according to their consumption behaviours, which depend not only on the product itself but also on the

consumption situation (Bruwer & Li, 2007). Based on these indicators, the authors (Bruwer & Li, 2007) developed a tool to measure (*Wine Related Lifestyles – WRL*) the lifestyles related with wine in the Australian market. They defined five dimensions of connection between wine and values, such (1) *Wine Consumption*, (2) *Ways of Buying*, (3) *Quality/Attributes*, (4) *Consumption Rituals* and (5) *Consequences of Wine Consumption*. The study resulted in 5 segments of wine consumers:

- Consumers oriented to social pleasure, which drink wine for fun and pleasure, particularly in bars but also at home to relax;
- Consumers oriented to appearance/fashion that drink wine to fit with their image of a wine drinker;
- Wine remarkable enthusiasts that enjoy rituals related to wine and want to be seen as someone who appreciates wine;
- Intentionally discrete premium consumer, who is not concerned about image and drinks socially, usually not in bars;
- Primary wine consumer, with little involvement with wine that drinks occasionally.

Nevertheless, contrary to the inherent culture of wine, many countries are facing unappropriated trends regarding alcohol misuse, primarily related to excessive consumption, known as *binge drinking*. Despite differences in consumption across the world, studies show that moderate consumption remains the norm, only a minority of people make improper use of wine, a high-quality drink.

However, the occurrence of alcohol-related problems is not directly related to average per capita consumption. Per example, countries such Ireland and Iceland which have low average consumption often record relatively high rates of alcohol-related social and psychiatric problems, while countries such France and Italy which have much higher levels of consumption, score low on most indices of problem drinking (Social Issues Research Centre, 2000).

Recognizing the health risks and adverse social and economic consequences of the unappropriated use of alcoholic beverages, and the fact that responsible wine consumption patterns are entirely compatible with a healthy lifestyle, the wine culture must require responsible and moderate consumption.

2. CONCEPTUAL REFERENCE FRAMEWORK

The following table presents the principal issues studied in the literature review which relevance they have to the project.

	KEY-QUESTIONS	RELEVANCE TO THE PROJECT
DIGITALISATION	Digitalisation has created powerful opportunities for innovative services and products (Larsson, 2016)	Deco Proteste must continue to follow the digitalisation trends, as perceived with the launch of app Deco Vinhos.
	The number of apps that consumers use on their smartphones has increased in a significant way in the last years (Gartner)	Deco Proteste should consider the changes in consumer behaviour.
	Mobile wine apps have changed the way consumers make purchase decisions, giving much information anytime and anywhere they need. (Higgins, McGarry Wolf, & Wolf, 2014)	Deco Proteste must take advantage of this opportunity and offer an app that adds value to the purchase wine decision.
DECISION-MAKING PROCESS	The decision-making process has five steps: problem recognition, information search, evaluation of the alternatives, product choice and outcomes. (Solomon, 2009)	App Deco Vinhos might influence the decision-making process in two steps: information search and evaluation the alternatives.
	The decision-making process of wine purchasing is influenced by the occasion of purchase, which consequently, influences the brands to analyse, depth of purchase, type of information collected and budget. (Lai, 1991)	Since several factors influence consumers at the moment of purchase, it is important to give them information about them, such as brand, quality results and price.
	The level of consumers' knowledge and involvement with the product are important factors to consider understanding the decision process of buying wine (Barber, Almanza & Donavan, 2006)	It is important to segment the several information available about wine to the different products offered by Deco Proteste, like the Guide and the App.
	An opinion leader is someone who has in-depth knowledge about a product and whose advice others seriously. (Rogers, 1983)	Deco Proteste must take advantage of its notoriety as a credible institution that provides reliable information.
	Price and Product Comparison Tools are digital content and applications developed to be used by consumers primarily to compare products and services online, providing information in a clear and easy way. (ACER, 2015)	Price and Product Comparison Tools are the competitive advantage of Deco Proteste. App Deco Vinhos must reinforce this advantage in the wine field.
WINE SECTOR	Portugal leads the world ranking in wine consumption with an average of 54 litres per capita (OIV, 2017)	App Deco Vinhos has a vast range of potential users, so it is crucial to fulfilling their needs in the decision-making process.

Table 1 - Conceptual Reference Framework of Literature Review main issues
Source: Self-produced

3. METHODOLOGY

In this Master Project is intended to diagnose the app *Deco Vinhos*, as well as to elaborate a proposal for restructuring to promote and improvement of its performance and acceptance by the wine consumers in their decision-making process of wine purchasing.

To sustain the theoretical part of this project, a **literature review** has been conducted to gather the information derived from several data such as academic papers, books, reports, websites and other regarding the digital transformation of the society, mobile web, mobile applications, the decision-making process of purchasing and the wine market.

3.1 Secondary Data

In first place were collected **secondary data**, which is data already existent that helps to have a better understanding of the subject. A Usability Test report was studied to understand and evaluate the usability and to obtain feedback about specific features. This test used a sample of five users with the following profile: regular buyers of wines (at least once a week); they did not work in the Web Design, Usability and/or User Experience areas and they were familiar with using smartphones. In this Master Project, the study of this Usability Test is crucial to understand the users' feedback about app usability.

Also, was also studied the Satisfaction Surveys made to Wine Guide subscribers about their satisfaction and opinion of Wine Guide and app Deco Vinhos. These types studies are regularly made in Deco Proteste, not only to the Wine products but also to all products that have publications or online comparators. For this Master Project, it is essential to perceive the subscriber's satisfaction regarding the app Deco Vinhos, to understand the crucial points that need improvements and what they value in the app.

3.2 In-depth interviews

Secondly was conducted an exploratory research to provide insights and an understanding of the problem. This type of research is usually used when it is necessary to define the problem more precisely and identify relevant and alternative courses of action or even gain additional insights for developing an approach. It consisted of **personal in-depth interviews with key-informants** whit an expertise in the APP *Deco Vinhos*, and these type of feedback add quality and direct advice about how to manage the mobile application. The applied method to acquire

information results was from semi-structured interviews. It means, although defined questions were pre-established, there was an open space for introducing some other questions regarding the interview flow. Primarily, key-informants were asked permission to record the interviews and informed that their answers were to be used for a subsequent study. All responded positively and thereby, all interviews followed the script order. The interview began with a brief introduction to the topic and an explanation of the reasons that lead to the study. The structure of the following interview see different open questions divided into six topics:

- (1) Aim of App *Deco Vinhos* and relation with Wine Guide;
- (2) *Deco Proteste* as an influencer in the decision-making process;
- (3) App *Deco Vinhos* positioning – company, customers and competitors;
- (4) Main goals and performance measure;
- (5) User's feedback;
- (6) The suggestion of ways to improve.

First of all, a previously contact was made by e-mail to understand the availability and the ability to contribute to this work. Four interviews were conducted through the six topics mentioned before. Regarding the involvement of each interviewee with the app, was given different focus to the different topics. Afterwards, all interviews were transcribed and translated.

Concluding, the primary data (information that is collected accurately for the research project) was collected by the mentioned in-depth interviews through a direct approach where the purpose is disclosed to the respondents. Therefore, was used a qualitative research to provides insights and understanding of the problem set.

Key-informants

This sample of four interviewees enables an in-depth analysis of the collected information, which would not have been possible if handling a broader sample. Being a qualitative analysis, the focus relates to the development of a specific problem, describing the current App *Deco Vinhos* situation and uncover possible improvements.

It has been chosen four employees that have been working with app *Deco Vinhos* in several aspects. Eduardo Ribeiro, from the User Experience team, who participated in the development process of the app, more focused on the user experience and analysed a test made to the user of the app according to its acceptability and usability. Miguel Botelho, art director, who gave his expertise regarding user interface design. Sofia Mendonça, project officer who has been

working with wine projects and specifically with App *Deco Vinhos*, in the quality strand. Susana Nunes, market analyst, who works with the wine in terms of market research and price analysis. João Moura, from the Marketing team, although we could not be available to be present in this interview, he provided several materials about the communication plan.

This diversification provides an overall of the app *Deco Vinhos* and its situation over time, from its development proposal to the current situation, and next steps.

3.3 Competitive Intelligence Analysis

A **Competitive Intelligence Analysis** is a process of understanding and learning a company undergoes regarding its industry. This analysis differs from the competitive analysis because the last one is a strategic technique used by a company to evaluate the strengths and weaknesses of its competitors. Competitive Intelligence is a high-level strategy implemented by a company where it pursues updated information on the overall market, the specific industry, the competitors and the consumers. All of these to achieve a competitive advantage over the other industry operators. Competitive Intelligence Analysis is similar to a benchmark since it could be used as a point of reference for evaluating performance from the experience of the other companies in the industry, to improve its own strategy and operations.

In this Master Project, as a competitive intelligence analysis has been conducted through several techniques: the transactional environment was analysed looking at the structure of the industry and the dynamics of the attractiveness of the market through Porter's 5 Forces methodology. It analyses the influence of the buyers, suppliers, new competitors, substitutes and rivalry between competitors. A competitor analysis was also performed since it is crucial to understand how the players are behaviour in the market. An internal analysis about the app *Deco Vinhos* was also completed using several information sources. To summary, a SWOT analysis was used to contextualise the competitive scenario and its level of impact on positioning, strategy and performance, indicating the strengths, weaknesses, opportunities and threats.

Finally, the results are gathered to obtain the most precise scenario possible to improve the necessary adjustments to the mobile application. The secondary data and the in-depth interviews supported the following topics in the next subject of data analysis: *4.1- App Deco Vinho Analysis*; *4.2 - User Expectations* and *4.3 – Key-informant suggestions*. The competitive intelligence analysis sustained the topic *4.4 – Competitive intelligence analysis*.

4. DATA ANALYSIS AND INSIGHTS

4.1 App Deco Vinhos Analysis

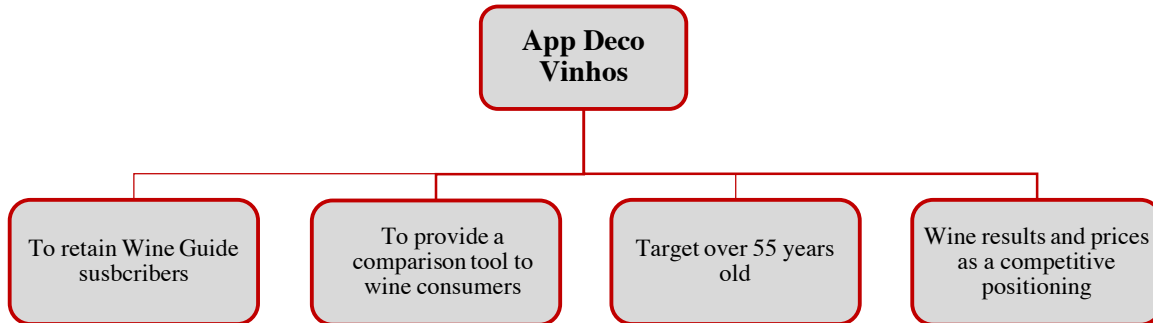


Figure 2 – Concept Map of App Deco Vinhos objectives, target and competitive positioning
Source: Self-produced

The first product of the wine line launched was the Wine Guide in 2004. Since its launch, Deco Proteste tried to introduce a new thing every year and offer it to the Wine Guide subscribers. They want it to become a product line with several items/services. First, was launched the product selector, the online comparator in *Deco Proteste* website. Besides that, partnerships were negotiated, discount vouchers were given to the subscribers, among others. These offers were forming the base package of the Wine Guide. Through the satisfaction inquiries that are regularly made regarding the Wine products line, was accurate that Wine Guide Subscribers would like to have the results of the wine tests in their phone, always available when they need it, especially at the moment of the shopping, in supermarkets and wine stores. Some years ago, were introduced in the Wine Guide a leaflet with a summary of the results of wine that could be easily carried in the pocket. However, most of the times the leaflet were forgotten and subscribers did not take in the purchasing moment, or the shopping process did not even was planned. For them, having access to the results of wine tests at the moment of purchasing would be very helpful and useful. Besides this, the new technologies have emerged, and although the wine results were available at the *Deco Proteste* website, and they could have access through the mobile phone, this was not so intuitive to use. So, the team started to think more simply to provide the results in a similar way to the online comparator. On the other hand, *Deco Proteste* also wanted to follow the technology trends and consumer's behaviour, trying to facilitate the access to the wine results at the point of sale.

Another feature of the mobile app is to be able to have prices regularly updated. Unlike the annual Wine Guide, the app is updated around four times per year. The app contains more tested wines than the guide in paper format because it also has the two other collections (sparkling wine and rosé wine). Comparing with the Wine Guide, the app has a feature of geo-referencing that detects where the consumer is and indicates him the stores near to him, at what price do they sell the wines. The app also recognises the labels and bar codes to have access to wine results, through Augmented Reality. In addition to all the practical character of research, the application features such: search for wine, rankings by price/brand/quality, a separator with several categories, among others.

4.1.1 Objectives

The main objective of the app is to retain the Wine Guide subscribers.

“The main objective was to retain the subscribers of the Wine Guide, offering a new product”

Sofia Mendonça, Project Officer

Also, is to gain notoriety among wine consumers and increase the number of subscribers. To achieve this goal and to get to know the app and all its content, the app was freely accessed to everyone during the first months. This was a way to foresee some contents that are available to every subscriber.

With this app, Deco Proteste also aims to provide a comparison tool to wine consumers, to help them in the wine purchasing through easy access to their smartphones.

Regarding its performance and goals measure, regarding downloads, the objective was achieved in the month of release. Nevertheless, after the first times, the downloads did not convert into new subscribers, or even in regular use from the previous subscribers because users did not use the app and then they uninstalled it. One year after the first release, there is no longer the same download rate that they got at the beginning when the app was launched, it turns much lower. This Master Project has the aim to change these facts and increase the performance of the app, raising the number of users.

4.1.2 Competitive positioning and target

Deco Proteste is seen as a credible institution that provides clear and transparent information to consumers. To the general public, the image of Deco Proteste seems to be still consistent regarding credibility so that consumers can trust in their work.

“Consumers value and recognise our work, and there is any problem of credibility and legitimacy on what we do.”

Miguel Botelho, Art Director

This sense of credibility has become with many years of work (publications, articles, online comparators, and others) with a vast range of products. Consumers have trusted in their articles and publications mainly because information from Deco Proteste is based on scientific evidence resort to laboratory tests. Most of this tests and this are communicated to consumers, are made in independent laboratories. At this moment, Deco Proteste always tries to demonstrate to consumers who are the best options and the ones with a better value for money

“Looking at our history, as a consumer defence organisation, we always want to give the best quality at the lowest price.”

Eduardo Ribeiro, User Experience

Through the in-depth interviews, regarding the specific case of wines, was possible to perceive the information published has a considerable influencing in the decision-making process of wine purchasing. This is based on the wines that would be out of stock a few days after the articles published, especially the ones with labels: “best of the test” and “right choice”. Deco Proteste often received contacts from consumers asking where to buy the wines, i.e., where did they are available, because they use to be out of stock. This is a consequence of their work and the image and notoriety as an independent and credible institution, which provides trusted results.

“Many times (and certainly as a consequence of our tests), when the results were published, the wines [with the labels “right choice” and “best of the test”] begin to disappear from the market”.

Susana Nunes, Market Analyst

Regarding the target, the app is intended to subscribers of Wine Guide (as mentioned before, the app is part of this subscription). The profile of subscribers is mostly men over 55 years,

interested in wine. However, this target was one of the leading restrictions to the app success, since an elder public is not so apt to use these new technologies and therefore, the target of the Wine Guide it is not the same for the app Deco Vinhos. Users from 18 to 44 are more likely to use apps, elder population are not so familiar with technologies what takes them to value more the Wine Guide in paper format. Although in previous satisfaction tests made to Wine Guide subscribers, they have said that they want the information more digitally, like a mobile application, currently they do not use it.

The main competitor of app Deco Vinhos is the app Vivino, operating in Portugal with Portuguese Wines. This app has some similarities with app Deco Vinhos like the identification of the labels through photos. However, this is a feature very well developed by other mobile applications, so it is not considered a value of app *Deco Vinhos* for differentiation. Nevertheless, the main difference is the results. App Deco Vinho results are a combination of wine tasting by a professional jury and laboratory tests. On the other hand, Vivinho is fed by consumers through their evaluation. The prices, unlike app Deco Vinhos, are updated by the consumers, since they register the how much they pay at which place. This is one of the reasons why the database is so extensive across the world. Nevertheless, Vivino also has a premium version that provides experts' evaluations, which is the main competitor of Deco Vinhos.

“Vivino is like a social network for wine sharing of users' reviews or a Trip Advisor of wine where you go to the app, you classify the wine, you upload a photo and add the price you paid and where you bought it”

Sofia Mendonça, Project Officer

On the other hand, app *Deco Vinhos* differentiate from its competitors through the laboratory tests (chemical and biological tests). However, it is essential to understand whether this add value to the consumer choice since almost every wine has good results in the field.

“When the majority of products have good quality, and there is no problem with sulphites, which is our value and our differentiation, but if the target does not perceive this differentiation or do not give it value... Is this important to their decision?”

Miguel Botelho, Art Director

4.2 User Expectations

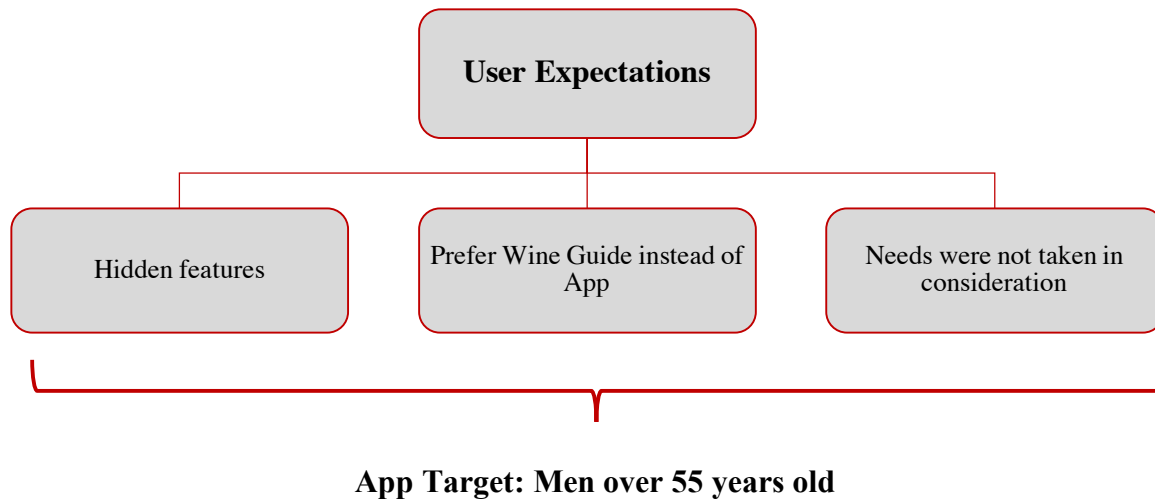


Figure 3 – Concept Map of User Expectations
Source: Self-produced

User Experience team conducted a Usability Test to five users of the mobile application to receive feedback. It was a qualitative search, so regarding statistical representativeness is considered fallible because the sample is very small. The primary goal was to understand the acceptance of the app *Deco Vinhos* alongside five users, and this one, statistical relevant for the test. The User Experience team did a “typical” user experience, and the interviews lasted around 1 hour, each one. Was given specific tasks, namely “find a wine that has a label of “best choice”, find recommendations about a specific wine”, among others. It was a qualitative research, and they used the *Think Out Loud* method, which consists of the user verbalises what he is doing. The team was always with the users mapping the more relevant and crucial errors. Each user, separately, had a phone with the app installed and the moderator gives them tasks. The tests were made when the app was almost ready to be released, and they would still have an iteration regarding development. It would be possible to make some changes regarding programming, but in practical terms, the app launching could not be delayed. The main objectives of this study were:

- Overall usability evaluation of the app Deco Vinhos on Android and iOS
- Get feedback on key features:
 - Bottle reading (label and bar code)
 - Realize where can buy a particular wine with a reasonable price
 - Realize which wines can be purchased at a particular store

The main conclusions from the Usability Test were the following:

1 – From the design point of view, the way the app was developed, the label reading through the scan of the wine label, as a principal task, it was a failure because it was not perceived in the first place. The users did not perceive some of the features. This is due, either the design is not noticeable, or the features are hidden in the user's perspective.

2 - The users' needs were not taking into consideration. The app was developed based on the technology available because Deco Proteste had much information to spread about wine. Regarding user's motivations has been the premise the user would use that type of technology to scan the label, per example. However, it was not considered the target of the app and which kind of needs they have.

“The product was developed not taking into account the user's needs but only the available technology in the market.”

Eduardo Ribeiro, User Experience

3 – Another point mentioned by the users was the functionality of the geo-referencing of the wines that were available in certain supermarkets was quite hidden in the app and turns out to be one of the most interesting features, according to the five users. Some of the users could do not even know about the existence of this feature. This functionality has an inherent value of money saving the decision risk-reducing and must be the main functionality of the app. The consumers may did not perceive the potential of the app in this field, as could be illustrated by the following sentence:

“Should we not focus the entire app on geo-referencing and provide the useful information like the wine is available in a certain supermarket?”

Miguel Botelho, Art Director

The feedback from users in the stores (App Store and Google Play) was not favourable neither negative; the app did not generate much interactivity. One of the interviewees referred:

“The app did not generate love neither hate.”

Miguel Botelho, Art Director

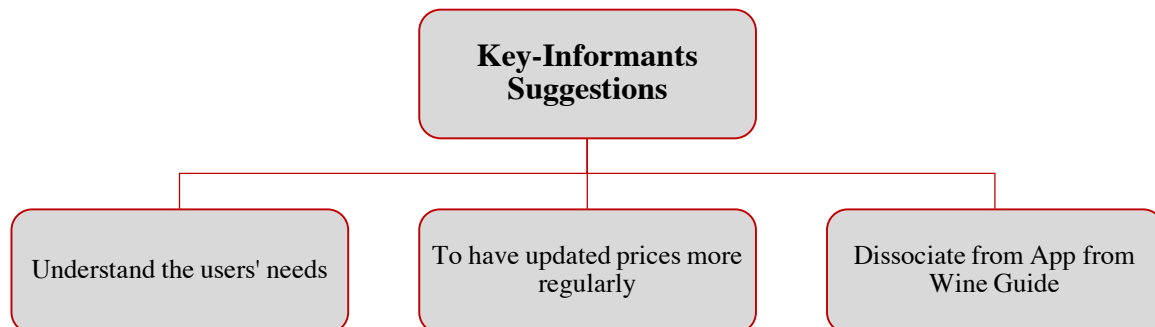
It has also been referred by the interviewees that the app has too much information available because there is much content to share about wine, on other platforms. In this type of product, mobile application, it becomes confusing when the app has a lot of available features and information.

Regarding the Satisfaction Survey to Wine Guide and App *Deco Vinhos*, consumers answer they were satisfied with both products but more satisfied with the Wine Guide. It occurred because the users wanted more detailed information in the app. However it is important to remind that the target was people over 55 years old. This idea was perceived with the following sentence:

“This [more satisfaction with the Wine Guide rather than App] of course comes from the age of the app's audience and the kind of use they make. Even from the internet, the use is just about information search.”

Sofia Mendonça, Project Officer

However, from the users, satisfaction's feedback was perceived that one of the advantages of the app is the ease to use since it is useful because it provides information at the moment of purchase.



4.3 Key-Informants Suggestions

Detected the main problems and understood the users' feedback, there were some suggestions from the key-informants to improve the performance and achieve the app's objectives. This question requested a personal opinion by the key-informants so were given different contributions regarding its motivations and perceptions.

Figure 4 - Concept Map of Key-Informant Suggestions
Source: Self-produced

Price and quality are both fundamental and important in the purchasing decision. However, one of the interviewees, Miguel, Botelho, have several doubts about what customers perceive about quality, whether the quality of the wine is related to laboratory test or wine tasting. He agreed that consumers will always want information about the tests of wine but not so extensive. He thinks that customers only want to know if the wine has quality or not and if this quality is above the average, regarding laboratory tests. Miguel Botelho also focuses this is the only need to maintain the credibility of the tests. On the other hand, he refers the wine tasting should assume a higher weigh in the quality part of the wine information. He also said it would be interesting introduce again the amateur panel in wine tasting (the panel was previously constituted by professionals and amateurs).

He justifies his opinion by saying the sometimes consumers do not have a harried taste like the wine experts, so sometimes it is good to have the perception of amateurs' taste:

“Sometimes professional panel could considered wine as exceptional (because they have more knowledge about it) and the amateurs could consider them banal or vice-versa. Someway, the professional could considered a low-quality wine but amateurs like it because the tasting is more consensual, and this can be valued by consumers”.

Miguel Botelho, Art Director

Regarding price, Miguel Botelho considers that is important to have updated prices in real time. For him, the app should be a combination of quality, price and point of sale. In a general way, he refers the app must be simple and gives our solution in one click, or two. He expresses that simplification and adaptation to the consumer needs are a solution to improve. This way, the consumers will use the app, not delete it, and more, they will recommend it to the pairs (increasing the number of users) if the app would be useful. For this, the app must be simple, practical and offer the information that is not findable in the rest of the apps present in the market.

In Eduardo Ribeiro's opinion, first is essential to understand the consumers' needs. Then, is important to cross this information with the Wine Guide target and understand whether this is the real target of the app. Regarding design, he wonders whether the choice of images is the more appropriated for the main goal of the app. He illustrates this idea with the following example:

“Having a vine landscape in the background may be hiding the need to visualise the price.”

Eduardo Ribeiro, User Experience

According to Sofia Mendonça's opinion, there are always improvements to be made. One of the suggestions is to have prices regularly updated, instead of the only four times a year. She also refers, that nowadays they also have online prices for wines, so it is important to have these prices in the app.

“At the time [when the app was launched], there were not online prices for wines, and therefore we could not have it in the app, but we think it makes sense to have it now because this is a digital tool. (...) As a user of the app, I may want the prices updated as much regularly as possible.”

Sofia Mendonça, Project Officer

She concludes that regarding communication, would be useful to have push-up notifications (users could allow it or not) in the app to communicate news and numerous information. Another improvement she thinks that could be made is approved user reviews in the app, make it more personalised for the users where they could give their opinion about the wine and share with others.

Regarding the subscription model, Susana Nunes refers that is being rethought. She gives the suggestion of Wine Guide in paper format, and the App Deco Vinhos would have a different subscription plan, it means, that would be useful, taking the different targets, have the possibility to purchase one product without having to acquire the other:

“The development itself or the opening of this app, so that it can be sold as a subscription apart of the paper Wine Guide.”

Susana Nunes, Market Analyst

Susana Nunes, also highlights that nowadays, all the companies who have their activity related to printing need to rethink their business, to innovate and get along with the trends.

4.4 Competitive Intelligence Analysis

In this subject, A Competitive Intelligence Analysis has been conducted to have a better knowledge about the overall market, the specific industry of the mobile wine applications and its competitors, as well as an internal analysis, to describe the app Deco Vinhos.

4.4.1 Porter's Five Forces Analysis

Michael Porter, considered the forerunner of modern strategy and author of 19 books and hundreds of articles at Harvard Business Review, developed a model that analyses the industry under the influence of 5 forces. This model is a powerful tool for understanding the competitiveness of the business environment in which company operates, and for identifying the strategy's potential profitability. Porter analyses an industry by looking at how hard it is to get in the industry (barriers to entry), stay in the industry (threat of substitutes), and the bargaining position of suppliers to and buyers of industry products and services. This helps identify the attractiveness of the industry. Identify the attractiveness of the industry and the strength of each competitive force is determined by a number of critical structural variables.

Threat of new entrants – Barriers to Entry

Regarding to the threat of entry, it is possible to say that there are a few barriers, as high costs of development for mobile applications.

Although there is no economies of scale, some of the information presented in the app *Deco Vinhos* is also used for the *Deco Proteste* website in the comparator and *Wine Guide* so that some costs can be shared.

When it comes to *App Deco Vinhos* differentiation, although there are several mobile applications with the same purpose, this app has some unique features like laboratory tests and geo-referenced prices in real time. Another important factor is the credibility that *Deco Proteste* already has as an influencer.

For these reasons, it is possible to conclude the threat of entries is high.

Intensity of rivalry amongst competitors

The mobile wine apps industry has a large number of companies competing among them. The market is still growing, and mobile apps are fighting for users.

This industry in Portugal has still few competitors. However, this market has many competitors worldwide. The most famous and used one is *Vivino*, an app with more than 25 million users.

The exit barriers are low because it is not necessarily an investment in equipment or machinery, neither fixed costs.

Therefore, the **intensity of rivalry amongst competitors can be defined as high.**

Bargaining power of buyers

The **bargaining power of buyers is high** because there are many alternatives in the market so they can switch. Regarding switching costs, there are both alternatives: customers can download free apps without spending money, or they can download paid apps (or premium versions of the free apps) in which customers have to pay an amount to have access to all content. The product is a high percentage of buyer's costs; it means that usually, buyer tends to seek affordable alternatives. Moreover, considering the mobile applications "world", customers are always looking for new apps with relevant features, when they are not satisfied with the app (or even when they are satisfied). Also, for customers is easy to look for new alternatives in app stores or websites, so they are highly informed. It can be considered that customer loyalty is low.

Furthermore, there is the availability of substitutes products like searching on the internet, asking for information to a specialised people, or even ask advice to friends/acquaintances.

Bargaining power of suppliers

In the mobile applications industry, there are a lot of suppliers (developers). There are people with know-how in just one operating system, but there are also developers who have the ability to elaborate app in several mobile operative systems. It is easy to switch from one developer to another, and the costs are not high.

Also, the suppliers (developers) are only needed in the process when the app is created and when it is necessary to make changes or updates.

For all these reasons, the **bargaining power of suppliers is low**.

Threat of substitutes

The wine is a product that has been bought for several years, and it will continue to be, especially in our Portuguese culture. However, the way buyers looked for options and made their decision have been changing over the years. The technological developments have enabled new sources of information.

This can be considered a considerable concern since there are several ways to look for information in the wine purchasing, such as books, guides, magazines, people with know-how,

social networks, forums, on the shelves, and others. Nevertheless, some of these substitutes can have high costs or higher costs than the mobile application.

The changing costs for buyers are quite low, depending on which sources buyers look up for information, so it is possible to disclose the **threats of substitutes are high**.

Attractiveness	Low	Medium	High
Threat of new entrants			X
Industry rivalry			X
Bargaining power of buyers			X
Bargaining power of suppliers	X		
Threat of substitutes			X

Table 2 -Summary table of Porter's Five Forces analysis
Source: Self-produced

According to Porter's Five Forces framework and analysing the wine app mobile industry we can conclude that this industry is not attractive. Attractiveness in this context refers to the overall industry profitability, so we conclude that the industry is not profitable.

4.4.2 Key Success Factors

Key success factors are the combination of important facts that are required to accomplish one or more desirable business goals. It means, each business identifies its key success factors differently depending on the nature of its products and/or services. In the case of mobile applications, most focused in wine search/comparison the key success factors should be the following:

- A **clear and instant call to action** – the app must need just one or two clicks to consumer achieve the main objective;
- Keep the app **simple and easy** to user experience – improve the usability and do not contain unnecessary information
- **Add value and information** frequently – the app must be updated in real time to provide a valuable utility
- **Get social** – the app must be integrated into social networks enabling the information sharing
- Presentable **interface design** – great look of the content

- To be **available in different versions** for all operations systems (at least iOS and Android)

4.4.3 Competitor Analysis

In a vast and dynamic world of mobile applications, where new developers emerge every day, new apps are also developed every day. Within the wine apps, the main competitors are the following:

- **Vivino Wine Scanner:** It is the most popular wine app with 25 million users around the world. Vivino covers 200 000 bottles where users just need to take a photo to the label to have information about price, ratings given by user reviews, food pairing and recommendations from the largest community of wine drinkers. It is possible to connect with friends via Facebook, Twitter, Gmail and contacts and create a wine list with the preferences. With an In-App Purchase (4,99€) users can unlock a premium version with exclusive features such as personal buying guide, expert ratings, up-to-date prices, manage the wine collection anytime and anywhere. It is available a Portuguese version, for Android, iOS and Windows.
- **Hello Vino:** This app aims to be a wine companion app for the everyday wine buyer, helping them in the store or restaurant. The app provides recommendations for wines to drink in several occasions. Through wine label scanner the app gives information about ratings, tasting notes and food pairings. Hello Vino has more than 2 million users around the world that create a community where is possible to share the rates. The app also provides a wine guide and wine gift ideas. The wine label scans are not free and to unlock the premium version user as to make an in-app purchase (5,49€).
- **Delectable – Wine Scanner, Ratings & Reviews:** It is considered the best app for following top sommeliers, winemakers and wine pros. Through a photo of the wine label, users can get ratings and descriptions with reviews and tasting notes. Users can create a personal profile and add their notes and ratings. This app has a premium version for 5.99\$ with a fully integrated wine reviews and ratings and priority to match labels. The app is not available for Android and iOS but not in the Portuguese language.
- **Drync:** This free app allows users to find wines by style, region or grape and see recommendations. Users can scan the label and get information about the wine by industry

experts and other Drync users, as well as availability and price. Users can also add notes and track their favourite wines. The app is not available in the Portuguese language.

Although there are several mobile wine applications available in the stores (App Store, Google Play, and so forth) the main competitor is Vivino Wine Scanner.

4.4.4 Internal Analysis

Description of Deco Proteste

Back in the late 60's, early 70's, an association arose with the aim of defending the consumer rights. Created in 1971, SEDES (Association for Economic and Social Development) organised the first symposium on the protection of consumers and the critical and falling purchasing power of the Portuguese people. This organisation grew up, and in 12th February of 1964, when Portugal was yet a dictatorship and a few weeks of the revolution that led to democracy, DECO was created (Deco Proteste, 2016a).

DECO is a Portuguese Association for Consumer Protection that defends the rights and legitimate interests of consumers, helping them to solve their problems and to exercise their fundamental rights which can be considered as the access to information for a better choice for several products and service tests, the quality of goods, right to education, justice, health and safety. All the work built pretends to contribute to more informed consumers, more enlightened, more aware, more confident and empowered in their choices, and able to leverage the competitiveness of the market.

As values, DECO focus on independence, credibility and proximity. Independence to face the political and economic powers, trying to be immune to their pressure, to claim actions and provide precise information to society. DECO works with professional teams to transmit credibility and always tries to gear the consumer needs, through a direct, assertive and appropriate way to interact with all players.

The first magazine (PROTESTE) was released in 1978 to be distributed by the members of the association. In 1986, DECO began a new strategy of professionalising its staff to disseminate its research and for the edition of PROTESTE magazine, which started its monthly publication in January of that year. In the same year, DECO also began the legal support to the members. This new strategy was financially supported both by the Portuguese Government through the

Consumer Protection Institute and European Commission – DGXI and BEUC (European Consumer Organisation). Due to this need of expanding and professionalise the editorial team, DECO, together with Euroconsumers, founded in 1991 *Edideco, Editores para a Defesa do Consumidor*, Lda, currently **DECO PROTESTE**. *Deco Proteste* is a joint-stock company owned 25% by DECO and 75% by Euroconsumers.

Currently, Deco Proteste has around 400 thousand of subscribers. Facing different challenges along the 40 years, DECO has grown, specialised and diversified. Deco always tried to adapt to the new consumers' desires and expectations. As Ivo Mechels, the CEO of Euroconsumers, said: "every organisation can only survive if it remains relevant for its customers". It means that this organisation has always tried to innovate to provide services that help its consumers and society in general.

The work of Deco Proteste is directly connected with the consumer needs by providing them with the information on existing products and services on the market. As it is known, every day come to market new products and services increasingly sophisticated, with multiple functions at different prices. Deco Proteste aims to provide detailed information for the right choice in a relation of quality and price (Deco Proteste, 2016).

Guia de Vinhos – Wine Guide

Guia de Vinhos was launched in 2004 by Deco Proteste. This guide is intended to a be a tool for consumers to have access to the results of the wine study. This study ranks a selection of wines, with prices up to 15€ in the domestic market.

This guide is positioned outside the traditional circuits of oenology publications and classifies a wide range of wines, with friendly prices. There are categories as "Best of the Test" and "Best Choice", evaluating a sample of 300 wines.

In this guide, it is possible to find advice about which wine to choose for different occasions. It also gives information about how to read the labels, how to serve and taste, and how to preserve the wine. Every year, it is published a thematic dossier with thorough and detailed information about a particular type of wine or a demarcated area.

Guia de Vinhos stands out by providing chemical tests, besides the traditional wine taste and in-depth study of prices. This guide also gives free access to the app *Deco Vinhos*, which is the

main focus of this project thesis and will be presented on the following topics. (Deco Proteste, 2016c).

How *Deco Proteste* test the wines?

Based on the market search, *Deco Proteste* select the brands according to their representativeness regarding units sold. They chose the most recent harvests, taking into account their availability at the time of purchase and articles published. All wines are purchased in retail stores anonymously, and samples are sent to specialised laboratories.

- Laboratory Measurements: These tests are indispensable for detecting defects in composition or even fraud. *Deco Proteste* focused on alcoholic content, sugars, volatile acidity and presence of additives. In red wine, it is also checked the state of the malolactic fermentation. This reduces acidity, makes the wine softer and enhances the quality, as it is intended in red wine. *Deco Proteste* is, frequently, more demanding than the law itself, always thinking in the consumers' well-being.
- Wine Tasting: A jury of professionals will pronounce about clarity, colour, aroma and flavour of each sample. The tasters never know which wines are tasting (blind test), to prevent brand or other elements influence the final result. The aim is to know the probability of wines appealing and to detect any defects.
- Label Analysis: It is necessary to identify the brand, year of harvest, alcohol content and other available information.
- Price collection: The price survey in the stores covers Continental Portugal and Islands. This information is assigned the titles "Right Choice" and "Economic Choice" to the wines.

Marketing-Mix of App Deco Vinhos

Product: App *Deco Vinhos* is a software that allows the user to access a several contents about wine as a description about the wine about characteristics, prices and point of sale. It is also possible to know where is the shop with more competitive prices near the user through geolocation service that triggers the mobile device.

App *Deco Vinhos* belongs to *Deco Proteste Editores, Lda.* and to *Deco – Associação Portuguesa para a Defesa do Consumidor* and is available to every *Guia de Vinhos* subscriber.

This app allows subscribers to have access everywhere and anytime on their mobile devices, providing results of wine tests, where to buy and which price. The app also recognises the labels and bar codes to have access to wine results files, through Augmented Reality.

This app was developed for smartphones with camera and software Android or iOS and can be downloaded for free on Google Play and App Store, respectively (Guia de Vinhos, 2015)

Place: The mobile app is available online in App Store and Google Play.

Price: The app download is free. However, to have full access to all content, it is necessary to be Wine Guide subscribers. For actual subscribers of *Deco Proteste* publications, the price is €1,75 per month and will be automatically subscriber of Wine Guide in format paper. Instead of €23,34 annually there will be a discount of 10% so the subscription will be €21,00. For new subscribers, the price is €23,34 per year.

The “Wine Guide Proteste” subscription gives access to:

- Receive the first copy of guide for free;
- Enjoy exclusive content about wine, in the newsletter and on website;
- Access to the free online comparator;
- Receive eight discount vouchers in the total amount of €24 that can be used in several cellars and gourmet stores;
- Receive a pocket booklet with information about wine tests results;
- 10% discount on all tested wines that are for sale in *Garrafeira Nacional*;
- Exclusive benefits with Lifecooler (discounts in restaurants, tasting workshops, wine tourism, and others);
- Benefit 10% discount in the next Wine Guide publication;
- Access to all contents and features in DECO Wines app.

Promotion: Regarding promoting the campaign started in October 2015, when the app was launched. In a general way, the investment was low. The communication plan divided in two ways: the internal plan in Deco Proteste media and the external plan in general media.

The main challenge was to promote the download and use of App *Deco Vinhos*. Collecting as many downloads as possible within a predefined target.

The main objectives were: (1) Find wine decision-makers e wine interested in the segment; and (2) convince the potential target to download and use the app *Deco Vinhos* and convince them to share the added value of the app.

The target was people interested in wine present in online media. Men with ages between 55 and 65 years old and men from 34 to 54 years old. Social grade B, C1 and C2 class.

To achieve the proposed objectives, the strategy was focus on: (1) Impacting the main target through influencers (more than opinion leaders, they opted for opinion makers); (2) Mark presence on digital media where the main target spend more time; and (3) Appeal to main target through SMS.

Internal Plan:

- Announce in Intranet
- Announce in homepage
- Reference in the Sparkling Wine article in the magazine *Proteste* of November
- Promotion on Facebook of *Deco Proteste*
- Communication through Press Department to journalists that were present in the Wine Guide event from the previous year
- Landing page of promotion in the *Deco Proteste* website

External Plan:

- SMS sending (2.250€)
- Bloggers (investment of 2.950€)
- Facebook AdWords – Domain Ads (investment of 1.800€) and Domain Ads based on Remarketing (investment of 500€) during the ten first days after the visit to the app.
- Google AdWords (investment of 1.500€)

The external plan, including the fees of management and implementation, had an investment of around 10.000€.

4.4.5 SWOT Analysis

SWOT analysis is an analytical framework for understanding the strengths and weaknesses of App *Deco Vinhos* and identifying both opportunities and threats of the market. This way, it can help uncover opportunities that are well-placed to exploit and, by understanding the weaknesses, it is possible to manage and eliminate threats. Thus, it supports the strategy formulation that can compete successfully in this market.

Regarding strengths of the App *Deco Vinhos*, the credibility and the background associated with the brand *Deco Proteste* as an influencer and a credible source of information, proved by several tests and publication about a broad range of products and services, through publications on the website and the Wine Guide publication since 2004. The extensive studies already did about wine show the tremendous know-how about this topic, either the laboratory tests made in independent laboratories or the wine tasting made by the professional panel. The price collection and the ability to have updated prices in real time is a significant advantage to this app. Other the main advantages of the App are the easy accessibility of the content anywhere and anytime the consumer want to check it.

Regarding weaknesses, the worst point is, although the download of the app is free, there is a high price of annual subscription with a fee around 25€ to have access to all content in the app. The app contains too much information and, according to the User Test made, it is not a call-to-action app. It means, it is difficult to achieve the main point of the app through few clicks. The target is very old for this type of technology, it means, the App' usage profile is different from the guide's target. The investment in communication was very low, and it only made in the launch period.

Regarding the opportunities, the number of smartphone users continues to grow. According to Marktest, there are 6,3 million smartphone owners in Portugal. Consequently, the time spent on mobile devices is also increasing. Regarding the consumer behaviour, consumers are increasingly concerned about searching information before making a purchase. The app Deco Vinhos could also be a new gateway for recruit younger people to Deco Proteste.

Concerning the threats, there are competitors, like Vivino, which has a strong position and reputation in the market. Another concern is consumers do not want to have extra costs when they are planning a purchase, so most of the time they are not able to pay for this type of apps. Finally, there are more Detractors than Promoters to the app, which means, there are more people that criticise the app and could influence negatively many other current and potential

customers than customers that can influence others in a positive way to use the app (see Annex B).

Strengths	Weaknesses
<ul style="list-style-type: none"> • Credibility of Deco Proteste as a main brand • Influence power of Deco Proteste • Know-how in wine topics (laboratory tests and wine tasting) • Price collection in real time • Easy accessibility of the content anywhere/anytime. 	<ul style="list-style-type: none"> • High subscription price to have access to all content • App contain too much information and content which makes it confusing • It is not a call-to-action app • Audience target too old for this technology • Low investment in communication
Opportunities	Threats
<ul style="list-style-type: none"> • Increase in the number of smartphone users (6,3 million owners in PT) • Increase in time spent on mobile devices • Increasingly concern about information search before purchasing • Recruit younger people to Deco Proteste through this technology 	<ul style="list-style-type: none"> • Competitors have a strong market position, like Vivino • Consumers do not want to have extra costs with Apps • There are more Detractors than Promoters

Figure 5 – SWOT Analysis
Source: Self-produced

5. PROPOSAL OF IMPLEMENTATION PLAN

The main objective of this project is to develop a restructuring plan that will allow App Deco Vinhos to rise its reputation, by increasing the number of users.

Currently, the App *Deco Vinhos* is part of the product line of the wine, in which the main offer is the Wine Guide in format paper. These offers, along with the access to the online comparator on the *Deco Proteste* website, and all the discount vouchers offered, are part of a subscription plan of the Wine Guide.

Despite the high level of awareness of Deco Proteste and, in particular, the Wine Guide, the app *Deco Vinhos* has been not able to recruit consumers of the generation that is now entering the working age and will be the basis for wine consumption. During the analysis of information to this project was perceived the target of the Wine Guide is mostly men over 55 years old, a very old target that does not use mobile applications on their daily basis. The Wine Guide subscribers are not the right target for using the app.

Thus, the main objective proposed is to dissociate the App Deco Vinhos from the Wine Guide in format paper. As a result, the app will have a new segmentation, a different target from the Wine Guide and a new positioning that reinforces its position as a unique product that added value to the decision-making process of wine purchasing. The proposal of this implementation plan is also based on the suggestions of the key-informants mentioned on the previous topic.

Segmentation

Demographic: Medium class, ages from 25 to 45 years old, both genders.

Sociocultural: Cosmopolitan population, who has a taste for wine. People who like to be informed and like to be pleased with their choices, not only to their pairs but also to themselves. People who like to discover new experiences, but be always sure that is a safe choice. People who like to make sure they spend money on quality products. People who are always aware of the new technologies, apps and digital media.

Target

The target that app Deco Vinhos intend to reach are both females and males, from 25 to 45 years old, across the country but mostly cosmopolitan people who like to be informed and like to buy wine, either for self-consumption or to offer.

Positioning

Positioning should be attractive to meet the consumer expectations, should also have credibility and make it a distinctive element from the competition. In this way, it must be based on a small number of functional or symbolic characteristics that can easily be communicated to all audiences.

The app Deco Vinhos positioning must be slightly different from the Wine Guide positioning to be seen as a different product with a unique selling proposition. Nevertheless, app Deco Vinhos must be seen as a credible source of information, either in quality and price. In the area of credibility, the main brand, Deco Proteste has already this positioning, thus is a good strategy to maintain “Deco” in the name of the mobile application. The app must differ from the competition as a great price comparison using the geo-referencing technology.

MEANS OF IMPLEMENTATION

According to the analysis presented in the previous topic, were pointed out three major areas of intervention in the app Deco Vinhos: the subscription model, the product itself and the communication plan. In the following topic will be exposed the means to implement a new strategy for these three main areas of intervention.

The action plan is based on a set of short and long-term actions, which, depending on the degree of complexity of execution, could present higher or lower implementation costs. The measures presented will meet the needs of the chosen target, thus responding adequately and efficiently to the new challenges of the market. It is essential to mention the proposed actions plans are merely an illustration and may be subject to changes.

PRODUCT

The main objective of the product changes is to simplify the app, becoming a call-to-action app. It means the main goal is to simplify the add, exclude all the unnecessary content and provide only the features that add value to this type of app, accordingly to all aspects that were studied previously.

Concluding, the main features will be:

- Geo-referencing
 - Where to buy a good wine with a reasonable price

- Which wines could be bought in a specific store
- Label and bar code reading

Proposed changes to the app:

- ✓ The prices should include the online prices and be updated more regularly.
- ✓ The app must have filters like price range, location range, and quality (“best choice” and “best of the test”) to facilitate the search.
- ✓ User-reviews to the wines.

The steps to achieve this change will be:

1. Definition of the main features to have in the app according to users’ preferences
2. Definition of the user experience main requests
3. Development of the changes
4. Evaluation and feedback
5. Release of the new version of the app *Deco Vinhos*
6. Follow-up of the new version

Action	Duration (days)	Budget
Definition of the restructuring	10	16.300 €
Provide the briefing to development team	5	
Make changes in the app features	60	
Evaluation and feedback	30	
Release of the App Deco Vinhos	7	
Follow-up of the app	30	
TOTAL	142	

Table 3 - Implementation plan 1
Source: Self-produced

This implementation plan presents a high degree of executing regarding its high investment and the long duration of the action.

SUBSCRIPTION MODEL

The main objective is to dissociate the app Deco Vinhos from the Wine Guide, considering several reasons already mentioned before. For this dissociation, the subscription model must undergo some changes. The subscription of the Wine Guide will continue to give access to the

App Deco Vinhos and all its content. However, it will be possible to subscribe only the app without having to be a subscriber of the Wine Guide.

The download of the app will remain free. Nevertheless, to have access to all content, besides the way previously described (be a Wine Guide subscriber) the app will have an option of In-App Purchase, like a premium access to the extra content.

Action	Duration (days)	Budget
Definition of the restructuring subscription model	15	1.500 €
Provide the briefing to development team	5	
Make changes in the app subscription	30	
TOTAL	50	

Table 4 - Implementation plan 2
Source: Self-produced

This measure presents a low degree of execution since its execution has a short duration and its implementation is planned to occur during the changes in the app itself and requires a low investment.

COMMUNICATION

This product was only communicated to the consumers in the moment of its launching and, currently the awareness of this product is shallow. So, it is crucial to reinforce its communication to reach new wine consumers and consequently, new users. This communication must be focus on the *expert knowledge* that Deco Vinhos has regarding wine analysis, not only in terms of quality but also with regard to prices practiced in the stores. From now on, it will be present the proposed implementation actions.

Action 1 - Ads in social media (Facebook and Instagram)

Consumers are increasing their time spent in social media, especially in Instagram. Nevertheless, Facebook continues to be a very important social media which counts 2 thousand million users all over the world, according to Mark Zuckerberg, the founder of Facebook.

Regarding this, it is vital to a brand be present where their potential consumers are. To generate awareness and show the product, the plan consists in to promote the App through Ads on Instagram and Facebook. For this action, the steps are the following:

1. Definition of the content of Ads and the audience to target
2. Roll-Out of the Ads

3. Follow-up

Action	Duration (days)	Budget
Definition of the content and target	30	5.400 €
Roll-Out of the Ads	20	
Follow-up	10	
TOTAL	60	

Table 5 - Implementation plan 3
Source: Self-produced

This measure presents a low degree of execution since its duration time is short and has a low investment.

Action 2 – Brand activation in Supermarkets, Hypermarkets during Wine Fairs

It is essential to be present in the place of purchasing which, most of the times, means the supermarkets or hypermarkets. A brand activation in these locations, where the decision-making process of wine purchasing is made, is crucial to generating awareness among the wine consumers. The timing plays an important role, so the Wine Fairs is the right period.

The plan should follow the next steps:

1. Define the brand activation based on an experience in Supermarkets and Hypermarkets
2. Communicate this experience and plan
3. Play the activation in Wine Fairs

Action	Duration (days)	Budget
Deliver the briefing to several agencies	30	30.000€
Presentation of activation proposals	7	
Choice of the best proposal	1	
Implementation of the action during the Wine Fairs	30	
TOTAL	68	

Table 6 - Implementation plan 4
Source: Self-produced

This measure presents a medium degree of execution, since its execution has a medium implementation duration but requires a high investment.

Action 3 – Creation of a network of Digital Influencers

As previously noted, reference groups are one of the most important factors in the decision-making process. Thus, it is incredibly relevant for brands to be able to communicate through these same groups, to reach the final consumer.

A similar action plan was made in the launching so; it is important to take into account the following aspect: which bloggers were contacted previously and whether they are the right choice to do this action.

To this objective, app Deco Vinhos should work in two fields: the non-specialized final consumer, where the influencers must be popular in the blogosphere and Instagram; and in the professional field, where the choice should fall by wine experts.

The action plan is composed by the following steps:

1. Choice of influencers
2. Definition of the partnership between the brand and influencers
3. Brand activation with influencers (event and app subscription)

Action	Duration (days)	Budget
Profile search for influencer	30	5.300 €
Choice of 10 influencers profiles that fit with the app and the brand	7	
Contact with chosen influencers and establishment of protocol	15	
Roll-Out of the project (event, product, etc.)	60	
TOTAL	112	

Table 7 - Implementation plan 5
Source: Self-produced

This measure presents a low degree of execution since its execution has low costs and fast implementation.

Although the initial costs of implementation are very high, it is crucial to the success of this app in the second release communicate to generate awareness among the potential consumers. The investment aims to recruit new consumers, which translates into new users of app Deco Vinhos, and this way gather a younger target in the Wine product line.

6. CONCLUSIONS

The advances in technology are, in fact, determining significant changes in many aspects of our lives, specifically in the digital services. The use of mobile has been increased in the last years and consequently, the use mobile apps. The aggregation and price comparison tools have facilitated the way consumers search for information in their decision-making process, facilitating the evaluation of alternatives, including in mobile app format.

Deco Proteste, following the trends and the consumer behaviour changes, created app Deco Vinhos in a way to offer a new product to wine consumers. Nevertheless, a year after its launch the app has not achieved the main objectives regarding users and downloads.

This master project aimed to understand the digitalisation and the decision-making process to comprehend where this app could be introduced in these subjects. According to the information gathered in the literature review, this app is a digital price and product comparison tool that could be useful in two steps of the decision-making process: the information search and the evaluation of alternatives. App Deco Vinhos has the information and the expert power to transmit knowledge about wine to its consumers.

It has been studied a Usability Test and a Satisfaction Survey that was conducted by Deco Proteste to understand the users' expectations and needs. The main conclusions retrieved from this study was the Wine Guide target it is not the indicated for the App user profile. Thus, the users who have access to this mobile application do not value its functionalities. Therefore, has been performed in-depth interviews with key-informants to evaluate the app performance. From this, was concluded the app did not achieve its goals but has potential to improve, regarding the know-how of Deco Proteste, regarding either the prices and the quality tests.

A competitive intelligence analysis has also been conducted to understand the mobile wine application market, its industry its competitors. As a conclusion of these analyses the mobile application market has several competitors, however in Portugal, there are a strong leader, Vivino. Nonetheless, app Deco Vinhos differentiate from the competitors by the laboratory tests (together with wine tasting perform the quality level) and the available prices in several stores.

To accomplish the last objective of this master project was developed a strategy to improve the App Deco Vinhos. An implementation plan was proposed to the app in three fields: changes in the product to simplify and make it a call-to-action app, in which is easy to accomplish the

main tasks; modify the subscription model dissociating it from the Wine Guide and a communication plan to generate awareness among the wine consumers.

Limitations and further research

Despite the thesis attempts to provide a restructuring of the App Deco Vinhos based on accurate information and reliable results, the study took into account some limitations that must be mentioned.

The implementation costs could be a limitation because this product has had a low investment since its released.

Regarding the in-depth interviews (qualitative research), even though the key-informants are experts and highly skilled, do not cover the entire subject and leaves space for further improvements and suggestions. Adding more key-informants, the study can provide wider knowledge and understanding useful for the app itself and also for the generic wine applications study.

Lastly, the proposed topic of improvement of the App provides an essential guide to further research, since it is essential to be always aware of the new trends and consumer behaviour changes. Regarding this, it is crucial to develop new usability and satisfaction tests to understand the main needs of the users.

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8. ATTACHMENTS

Annex A – Wine History in Portugal

The first vines were introduced in Iberian Peninsula around 2000 BC by the Phoenicians. The production of wine was widening throughout the country due to the arrival of the Romans. However, from the 8th century, Muslims invaded the Iberian Peninsula and quickly conquered most of the territory which culminated in the ban of wine production. With the conquest of the Portuguese territory by Afonso Henriques, the cultivation of vineyards was being authorized. After the Windsor Treatise, in 1386, the wine began to be exchanged with England and started to be famous beyond borders. In the beginning of 9th century, the Portuguese vines were very famous when the plague of phylloxera (first saw in England), a disease caused by a small insect that settles in the roots of the vines and destroys them, which lead to a sweep of the sector. During several years, after a the phylloxera disease, political instability, First Global War and an economic crisis, the wine sector that had never achieved the restructuring it needs. In 1932, Salazar, son of a producer of *Dão* wine, became the president of the Second Republic. A bureaucratic, authoritarian, protectionist and regulatory regime that reflected, in the case of wine, in rip out all the castes in *Alentejo*, in order to plant cereals. This provoked the revolt of many small farmers who were wine producers. In 1935, were created the *Adegas Cooperativas* (Corporative Cellars) – a join of several producers – to standardize the methods of production in order to achieve some quality. However, this quality was not met because these wineries constituted monopolies, razing with the small farmers that produce quality grapes. In general, the quality of wine decrease and one of the reasons was the join of good grapes with grapes with bad quality. The governmental policy required avoid imported goods so the main destinations of national production were Portugal and African colonies during the *Portuguese Colonial War*. After the *April 25th Revolution* Portugal lose its African market and the sector started to decrease again. However, due to this Revolution, middle class progressed and have created a new market: more demanding and with different consumption habits. The entrance of Portugal in European Union in 1986 also was a revolutionary step in the wine sector, which allowed the restricting of the whole sector. In the following years, wineries were modernized all over the country and the regions were reorganized, creating the wine organization system (Mayson, 2005).

Annex B - Research Study of Wine Guide and App conducted by Deco Proteste

Main conclusions of the Research Study to evaluate App Deco Vinhos in order to promote the too and meet the needs of its current and potential customers. It was also evaluated the actual satisfaction with the Wine Guide, at the moment. This Research Study was made in 2015 by the Consumer Insight & Business Development team.

Positive (Wine Guide & App)	Less Positive (Wine Guide & App)
<p>The WG subscribers are Heavy Wine Consumers (+ 4x week (57%)), preferring Alentejo or Douro Red wine using their Guide mainly to obtain information about Wines (such as reading the label, serving, tasting, etc.).). This consultation is carried out, on average, every 2 months.</p> <p>WG subscribers value Wine evaluations.</p> <p>Those who use the App will consult this tool more than the Wine Guide or the Selector on the website.</p> <p>The main advantage of the App is the easy accessibility of the content anywhere / moment.</p>	<p>Conversion rate to Wine App of wine guide subscribers is low because the App's usage profile is different from the guide's target.</p> <p>Wine Guide (WG) subscribers are less involved with the Internet than the Portuguese population in general (-20 p.p), accessing mostly through Desktop (64%).</p> <p>There is a positive evaluation but the level of recommendation is low in the Wine Guide & App.</p> <p>There are more Detractors than Promoters (in Wine Guide and App).</p> <p>WG subscribers do not have an opinion about what is most important to have in an App Wines (60% ns / n.r).</p> <p>Only 30% of subscribers know the App and 6% use (younger).</p> <p>Who uses the <u>App</u> is Satisfied but less than with the <u>Wine Guide</u>.</p> <p>The main disadvantage of the App is a lack of detail in information.</p>

Figure 6 - Main conclusions from the Research Study according to subscribers' involvement with the Wine Guide and App
Source: Deco Proteste

Wine App	Wine Guide
<p>The App is a matter of time to evolve, but the <u>Wine Guide subscribers are not the right target</u> for using the app.</p> <p>The low involvement with the App (negative NPS) demonstrates the need for greater user interactivity with it.</p> <p>Rethink a different target for the App [between 30 – 45 years and from high social classes] with an interest in wines.</p> <p>This technology provides a new gateway for recruit younger people to DECO Proteste.</p>	<p>The subscribers of the Wine Guide are involved with Wines but <u>not with the App</u>.</p> <p>Although, they are involved with Wines they are not involved with the Guide (negative NPS). So, it demonstrates the need for improvements.</p>

Figure 7 - Recommendations for the Wine Guide and App
 Source: Deco Proteste