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# VIRTUAL WARDROBE - SUCCESS OR NOT?

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**#3438**

**A Project carried out on the Master in Management Program, under the supervision of:**

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## 1) Abstract

This dissertation aims to study a set of possible features for a new business idea: the concept of a virtual fashion wardrobe, as well as its viability in the Portuguese market. To do that, it was conducted a research methodology, through Experts In-depth Interviews, Focus Groups Sessions, In-depth Interviews and an Online Survey. By analysing the results obtained during the research process, some features were defined. Through that study, it was also concluded that this app should not be released by an entrepreneur, but rather by an already well-established brand as a complement of its digital communication, mainly due to the huge financial requirements needed to initiate that project.

**Keywords:** Fashion, Entrepreneurship, Business Strategy

## 2) Introduction

### a) Idea

Fashion has been attracting consumers' interest for a long time, especially for female consumers (Miley and Mack, 2009). The Fashion industry is identified as one of the largest industries in the entire world, having reached roughly $2.4 trillion in total value in 2016 (Mckinsey 2016). In particular, the consumption of fashion products in Portugal is on the rise, (Euromonitor International 2017) and, as a matter of fact, more than 60% of female Portuguese young adults are highly involved in fashion (Cardoso, Costa and Novais, 2010). Fashion consumers, especially women, sometimes struggle with not only what they own, but also with the best ways to combine their fashion items[1] (Telegraph, 2009). With the growing technological developments across different mobile devices and increased smartphones ownership (Cabral, 2015), as well as other digital platforms (IAB and PwC, 2014), the need of having a solution that would allow anyone to easily keep track of their closet composition and discover new

[1] From here onwards, the term "fashion items" includes all types of fashion clothing pieces, footwear and accessories.

clothing pieces that would fit one's fashion style emerged for the author[2] of this dissertation – essentially, a virtual fashion wardrobe.

### b) Motivations

The author was unaware of any solution of such kind and neither did close friends and family. There were multiple fashion websites and mobile applications[3], like brand specific apps and other types of fashion-related apps that did not fulfill the stated need. On top of this, despite the mortality rates among start-ups being high (Cbinsights 2017)**,** many digital businesses have achieved tremendous success in the most recent years (Forbes 2014), including fashion-related ones, like the first and only Portuguese unicorn[4] (Medium 2015; Portugal Fashion 2017). This means that there may be an ungrasped and imminent business opportunity, by creating a digital solution that aims to tackle the apparent need for an easier and more convenient way to manage one's closet.

### c) Hypothesis/research question

As a result, the apparent inexistence of such solution, together with a potential business opportunity, lead to the development of this project and the following research question:

**- Should the virtual wardrobe be developed and, if so, which features should it have?**

In order to avoid going too broad and lose focus on the most important elements to study, as results started to emerge it was decided that the main target audience would be Portuguese women, aged between 17-30, who show a minimum level of interest in fashion and are tech-savvy – as mentioned earlier through literature, this audience is very involved in fashion, thus assuming that this would be a relevant audience to focus the research on, as a starting point. Besides this, and as mentioned early, considering both the increasing smartphone ownership

[2] When "author" is mentioned it is referred to the author of this dissertation.
[3] From here onwards, mobile applications will be referred as apps.
[4] A unicorn is a start-up firm which is evaluated over 1 billion dollars, in this case, Farfetch.
Source: https://goo.gl/q1hcSq [Retrieved on 17th/Nov/2017]

and mobile technology adoption, as well as in order to narrow down the scope of this research, it was decided to develop solely an app and not a website (or similar) alternative. This study may interest not only academics, but also professionals, on several levels. The data, identification and profiling of fashion consumer segments and results from this project, associated with the most important variables concerning specific preferences and purchasing behavior towards the most recent fashion-related technological developments, can be the starting point to further studies about consumers interested in fashion products. On the other hand, for professionals this research may also provide useful information about fashion consumer segments. This can be an important tool for all the brands that operate in the Portuguese market. The outcome of this study can be used to segment the market, to develop new products and also to make some upgrades in marketing and communication strategies.

### d) Organization of the report

This dissertation is organized in the following manner: firstly, a section focused on the market and contextual background; secondly, a literature overview of the different types of Portuguese fashion consumers; thirdly, the methodology is described and the results obtained are presented and discussed; subsequently, the practical and theoretical implications that this project may give birth to and the underlying conclusions that were drawn, thus addressing the main research question, bearing in mind that there were limitations that constrained the research process. Finally, the attachments section includes further information on relevant aspects of this study, to complement the information that lies on the main document.

## 3) Contextual background/market

### a) Portuguese Fashion Market

The Apparel and Textile Industry plays an important role among the different industries of the Portuguese Economy, representing 10% of the total national exports, 20% of the manufacturing industry employment and 8% of the manufacturing industry total revenue (Associação de Têxtil e Vestuário de Portugal 2016). Regarding values, it was registered a turnover of € 5.566 millions and for 2017 it is expected a sales growth rate of 2,8% (Euromonitor International 2017). Analysing the Portuguese consumers, it is possible to conclude that they can be defined as Discount Seekers (Marktest 2015). In fact, Portuguese are willing to postpone a purchase of a certain good until it is offered through a promotion, being that clear among the apparel and footwear market (Euromonitor International 2017). This trend is not expected to cease anytime soon, which will probably have a structural impact on the market, mainly caused by the income inequalities and the predominance of low incomes among Portuguese families. These continuous price promotions represent a huge challenge for the Fashion Industry, in which fast--fashion brands will certainly be benefited. Analysing the current economic landscape of the Portuguese Apparel and Footwear, Zara and Primark affirm themselves as the market leaders, registering a market share of 7,6% and 6,8%, respectively (Euromonitor International 2017). Aditionally, the main consumers' motivation for buying online is the price level (CTT 2017).

### b) PESTL Analysis

#### i) Political

The higher progressivity, through a crescent number of taxation levels proposed by the Government for the Income Tax, will increase the disposable income of consumers, which in turn could represent a sales increase (Jornal de Negócios 2017). On the other hand, the thawing of careers among the public administration will conduct to an increase of the salary level of that employee's (Eco 2017). Therefore, the available income will increase, as well as the likelihood of making fashion purchases, *ceteris paribus*.

#### ii) Economic

According to Bank of Portugal (2017), it is predictable that the Portuguese Economy continues to grow and recovering from the huge crisis felt in 2011. Thus, after an increase of 1,4% of the GDP in 2016, for 2017 and 2018 is expected a raise of 1,8% and 1,7%, respectively (Bank of

Portugal 2017). Regarding consumer spending, for 2017, it is expected an increase of 2,1% against the 2,3% registered in 2016 (Bank of Portugal 2017).

**iii) Social**

Portuguese consumers are becoming more price sensitive, being therefore very prudent in their purchasing decisions. According to Observador Cetelem Study (2017), it is rare that a Portuguese consumer buys impulsively – active price comparison is a regular practice across different retailers/brands (Jornal Económico 2017). Due to this sensitiveness, Portuguese consumers have been shifting many of their purchases for promotional moments and 45% of the products are sold under promotional campaigns (Marketeer 2017). Besides that, it is important to underline the increasing interest for Sportswear. The consumption patterns of Portuguese consumers, mainly in the urban areas, are changing. One of the reasons for that being happening is the recent success in the sports area that Portugal has been witnessing, such as the victory of the 2016 European Football Competition (Euromonitor International 2017). On the other hand, Portuguese are buying more online (Euromonitor International 2017). In fact, in 2015 it is estimated that e-commerce has registered a value of € 3,5 billions, having achieved an annual growth rate of 8%. Currently, 35% of the population aged above 15, makes online purchases, representing therefore 3,1 million shoppers (SIBS 2016).

**iv) Technological**

Portuguese are increasingly surfing the internet - from 2009 to 2016, the daily internet usage increased from 30% to 60% (Observatório das Desigualdades 2017). Smartphone is the device that displays the greatest adoption levels: in 2016, 78% of users aged between 16 and 77 years old used smartphones and 44% of them a tablet (Observatório das Desigualdades 2017). Not less important it is to analyze the increasing usage of social networks. From 2008 to 2015, the number of users among the different social networks tripled, since the penetration rate increased from 17,1% to 54,8%, according to a study developed by Marketest. According to Marketeer

(2017), Facebook is the favorite social network of Portuguese people and the one that they use more frequently, in second place, comes Instagram and WhatsApp comes in third. Portuguese social network users pointed out that they mainly use these platforms to send messages, what can explain the huge growth of Whatsapp (Marketeer 2017).

**v) Legal**

In 25th May of 2018 will enter into force a new Regulation for Personal Data specific for all members of the European Union: the General Data Protection Regulation [5] (Itpro 2017). Before this Regulation, the Personal Data definition includes information such as name, e-mail address and phone number. But after the GDPR release, this definition was expanded and currently it includes online identifiers[6] any other data that enables the someone's identity (EUGDPR, 2017). Google, Facebook and other platforms use "cookies"[7] and other online identifiers to target users for their online advertising campaigns. However, after the Data Protection Regulation issued by the European Union, these platforms will be unable to use that personal information without the confirmation given by the users. Thus, it is predictable that structural changes among these platforms will occur (Pagefair 2017). For those who breach this regulation, it could be applied a fine up to 4% of annual global turnover or a fine of € 20 million (EUGDPR, 2017).

**c) Competition**

Focusing our research in the existing fashion apps and platforms, it is possible to identify a series of relevant apps and platforms with different functionalities. Since the app is designed to be a virtual wardrobe, it is important to attend the research on apps/platforms like this concept.

[5] From here onwards, the term "General Data Protection Regulation" will be referred as "GDPR".
[6] Online identifiers examples could be operating- system/platform-level, browser-level and/or application-level identifiers.
**7** A cookie is nothing but a small text file, created by a certain website, that is stored in a user's computer. These files allow the website to recognize that user as he/she surfs the web and keep track of his/her choices, like recording a user's browsing activity.

The first competitor found was “Closet +”. This free app is nothing but a platform in which it is possible virtually storing out the physical wardrobe by taking photos of the items available or by uploading existing photos. Through this app, users can create outfits in advance, since it has a calendar feature which allows defining the outfits for each day. This calendar option also enables sharing the outfit of the day in the Facebook and Twitter Social Networks. However, there is no social interaction inside the app, so user friends, for example, cannot comment each other’s outfits (Closetapp 2017). Another digital platform to store out the physical wardrobe is the “Stylicious” App. This is a complete virtual clothes organizer, since it incorporates more features than a simple virtual closet. It presents a Lookbook option, in which anyone can create different outfits within seconds, not only using the items from the closet, but also from the shopping section. The app has an American fashion stylist to provide advices about possible outfits and the users can bookmark their favorite fashion brand in order to know when these brands go on sale. On top of that, just like “Closet+”, the users can plan in advance the outfits for different days and occasions, having the possibility of sharing them on Facebook, Twitter and Pinterest (Stylicious 2017). There is another important competitor among the fashion platforms/apps: “GlamOutfit”. This app is more social-focused, in the sense a user can ask for other user’s help. For that, the user has to open his wardrobe to other users. So, in this app the fashion stylist is composed by other users instead of an expert as in “Stylicious”. As the other apps, it is possible to plan in advance the outfits for different occasions (Stuffnstyle 2017).

## 4) Literature review

### a) Different types of Portuguese fashion consumers

According to Cardoso, Costa and Novais (2010), Portuguese fashion consumers are divided into three categories: the “Enthusiasts”, the “Moderates” and the “Apathetic”. The “Enthusiasts” demonstrate high levels of fashion involvement, which can be defined as “the consumer’s perceived importance of fashion clothing” (Cardoso, Costa and Novais, 2010), so the time and effort spent on selecting and acquiring new pieces of fashion clothing (O'Cass, 2004). This type of consumers is also very innovative, so they appreciate buying "new and different products rather than remain with prior choices and consumption patterns" (Im et al., 2003). According to Rogers (1995), innovativeness can also be defined as the propensity to which a consumer is willing to try and adopt new trends before other people in the same social system. "Enthusiasts" use fashion to express themselves and, frequently, they buy new pieces of clothing (approximately once a month). These consumers are also more vulnerable to make impulse purchases comparing with the other ones. In the decision-making process they give relative importance to brands. For "Enthusiasts", price is important; yet, they strongly value quality and comfort at the time of the purchase. Despite this, among the three categories of Portuguese fashion consumers, these are the ones who value less these set of variables (Cardoso, Costa and Novais, 2010). Regarding "Moderates", they demonstrate involvement with fashion and they are innovative in a way that they use it. Approximately once every 1-6 months, these consumers go shopping. However, they do not use fashion clothing to express themselves as "Enthusiasts" do (Cardoso, Costa and Novais, 2010). They tend to buy assertively, thereby avoiding impulsive purchases. Price is an important variable to consider at the time of the purchase, as well as comfort and quality. Therefore, the types of brands chosen by them are the ones with a perceived reasonable balance between price, quality, comfort and appealing design (Cardoso, Costa and Novais, 2010). Our Portuguese "Moderates" are similar to the "fashion followers" (Gutman and Mills, 1982; Workman and Studak, 2006). Finally, the last fashion consumer type: the "Apathetic". They are little involved with fashion and they do not address much importance to brands (Cardoso, Costa and Novais, 2010). "Apathetic" consumers do not shop frequently – approximately one time every six months and they are not innovative in the use of fashion. Like "Moderates", "Apathetic" do not use fashion clothing to express themselves and they are prudent when buying new pieces of fashion, avoiding, hence, the impulsiveness. For them, price, quality and comfort have a big impact in the decision making progress, being this group the ones that value the most these three variables (Cardoso, Costa and Novais, 2010).

## 5) Methodology

In order to conduct a thorough and accurate research, it is extremely important to define the most appropriate research process possible, considering the nature and scope of the challenge ahead (Creswell, 2013). Since there are several possible types of market research one can use, an integrated approach that combines not only qualitative and quantitative, but also primary and secondary data helps to make the understanding of the research problem clearer.

### a) Primary and secondary research

Primary data "represent data originated for the specific purpose of the study, with its research questions. The methods vary on how Authors and Researchers conduct an experiment, survey or study, but, in general, it uses a particular scientific method." (Expert Journals 2017). It can involve running surveys, experiments or observations, among other methods, so the researchers should provide information regarding not only the study participants[8], but also inclusion or exclusion criteria that was applied (Expert Journals 2017). On the other hand, according to Malhotra (2010), secondary data "are easily accessible, relatively inexpensive, and quickly obtained". However, "because secondary data have been collected for purposes other than the problem at hand, their usefulness to the current problem may be limited in several important ways, including relevance and accuracy" (Malhotra, 2010). Thus, and as previously referred, the abovementioned highlights the importance of combining these two types of data. It is also wise to start the market research by going deep into the relevant, available secondary data and only then move towards primary data - "examination of available secondary data is a prerequisite to the collection of primary data. Start with secondary data. Proceed to primary

[8] The participants profile can be found in Appendix H, Appendix L and Appendix Q.

data only when the secondary data sources have been exhausted or yield marginal returns" (Malhotra, 2010). In sum, primary data is used "by a researcher for the specific purpose of addressing the problem at hand", whereas secondary data is "data that has already been collected for purposes other than the problem at hand" (Malhotra, 2010).

**b) Qualitative and quantitative research**[9]

According to Malhotra (2010), qualitative research is an "unstructured, exploratory research methodology based on small samples that provides insights and understanding of the problem setting.". Likewise, this approach makes sense to use when one wants to dive deep into a specific topic, subject or detail that one is unable to obtain through other types of research methods (LSE 2010). In turn, Malhotra (2010) define quantitative research as a "research methodology that seeks to quantify the data and, typically, applies some form of statistical analysis." LSE (2010) claims that "quantitative methods are best when you want to compare data in a systematic way, make generalizations to the whole population or test theories with hypothesis". Parallelly to primary and secondary data, these two types of data should not be considered apart and regardless from each other, since "it is a sound principle of marketing research to view qualitative and quantitative research as complementary, rather than in competition with each other." (Hill et al, 2005).

**c) Action plan**

This research is segmented into five stages[10], focused on the target audience previously referred. The first one consists in the development of a Contextual Background, in which the Global Fashion Industry[11] and the Portuguese Fashion Market were analyzed, a PESTL analysis of the Portuguese Fashion Market was performed and then an overview about the competition was also developed. The second phase consists in the analysis of literature – secondary data about

[9] A Scheme about the differences between these two types of research can be found in Appendix S.
[10] An action plan scheme can be found in Appendix R.
[11] The Global Fashion Industry analysis can be found in Appendix T

the different types of Portuguese fashion consumers. After going through literature, in order to obtain specific information on how to best run further studies, two in-depth expert interviews were conducted in the third stage of this research process: one with an expert in Fashion and the other one with two experts in Market Research (profiles in appendix A). This type of research method is useful for marketing research conducted for technical products, such as this app (Malhotra, 2010). The rationale behind these interviews was to obtain guidance on the best way to move forward with the research, since one of the experts chosen has a deep knowledge of the Portuguese Fashion market and industry and the other two have an extensive career in Market Research. Thus, the data obtained through it, in parallel with the previously mentioned literature, was utterly important to design the subsequent methodology structure: the interview with the Fashion expert helped to define which questions and subjects are the most relevant and should be subject of study; the interview with the two market research experts shed light on the best ways to study the questions and subjects suggested from the Fashion expert interview. The market research experts suggested to first use qualitative methods - to get a glimpse on what the target audience thinks about not only the closet management need, but also to the whole draft idea of the app (similarly to the fashion expert interview) and then use a quantitative method to test the hypotheses postulated from the qualitative research, as well as to draw robust conclusions. Bearing that in mind, two Focus Group Sessions were held, to obtain insights about possible features for the product in the fourth phase of this research. According to Malhotra (2010), "the main purpose of focus groups is to gain insights by listening to a group of people from the appropriate target market talk about issues of interest to the researcher. The value of the technique lies in the unexpected findings often obtained from a free-flowing group discussion.". Even though Focus Groups present many advantages, through in-depth interviews one can obtain deeper insights than in focus groups (Malhotra, 2010). Therefore, additionally and still in the fourth phase of the action plan, a series of in-depth interviews were conducted, in order to complement the focus group sessions and to start testing some of its findings. This type of interviews presents some differences in comparison with the focus group, such as the fact that there is no social pressure, being possible an easier and more complete exchange of information impossible to attain in Focus Groups Sessions (Malhotra, 2010)**.** Finally, in the fifth and final stage, an online survey was used to cement conclusions drawn from the results of the hypotheses being tested through it. According to the Market Research experts, doing a quantitative analysis is the best option to validate all the qualitative results, in this case the set of possible features obtained in the previous phases. This is supported by literature (Malhotra, 2010)**.**

### d) Structure

#### i) Expert in-depth interviews

Literature corroborates what the market research experts mentioned regarding the objectives behind using qualitative interviews throughout the research process, since “the purpose of interviewing experts is to help define the marketing research problem rather than to develop a conclusive solution” (Malhotra, 2010). Likewise, the fact that the interviewees are Portuguese and are experienced in dealing with the Portuguese market, it is fair to assume that they can provide relevant, unique and specific insights. The interview guide should be unstructured, since “typically, expert information is obtained by unstructured personal interviews, without administering a formal questionnaire. It is helpful, though, to prepare a list of topics to be covered. The order in which these topics are covered and the questions to ask should not be predetermined but rather decided as the interview progresses. This allows greater flexibility in capturing insights from the experts” (Malhotra, 2010). Therefore, structure and guides for these experts’ interviews were created and can be found on Appendixes B and C.

**ii) Structure - Focus group sessions**

According to the Market Research Experts, to obtain the most accurate insights, the participants of the Focus Group sessions have to be chosen according to the target market of the product. Thus, it was developed a Recruitment Questionnaire – Appendix F**,** based on the literature previously studied, the insights obtained through the in-depth interview with the fashion expert and also based on the basic principles of app usage, such as the smartphone ownership. After applying this filter questionnaire, twelve participants were selected: six for each session (according to Malhotra (2010), the number of respondents in these sessions has to be small and 6 is an appropriate number). After this selection, the two sessions were finally conducted. The literature and experts' statements were completely aligned in what concerns to the most appropriate way to conduct the Focus Groups Sessions. Hence, these sessions were developed in an unstructured and natural way, for the participants to feel free to talk about their experiences and some issues which are the interest of the author (Malhotra, 2010). So, a set of topics to cover during the sessions was developed, not being important the order in which these topics are covered. The full Focus Group Guide can be consulted in Appendix G and the participants profile in Appendix H.

**iii) Structure - In-depth Interviews**

As in the Focus Groups Sessions, the participants have to be chosen according to the target market of the app. So, it was applied the pre-questionnaire guide, the same one used during the recruitment process of the focus group sessions, to filter out the final participants of these interviews. As previously mentioned, this set of interviews were performed to pre-test the results obtained in the Focus groups sessions and also to obtain more and deeper insights. According to Malhotra (2010), through In-depth interviews people are more comfortable to talk about sensitive topics, since there is no peer pressure. As Focus Group Sessions, these interviews are not structured, being just developed an interview guide with a set of topics to be covered during the course of the interview. The complete interview guide and participants profiles are in Appendixes J and L, respectively.

#### iv) Structure - Online survey

During the in-depth expert interviews, the market research experts suggested that the validity of the insights obtained through the qualitative research should be tested through a quantitative research, namely by a survey. So, the author decided to pursue an online survey to run this validation process. According to Malhotra (2010), surveys should be developed in a structured way, in order to capture specific information from the respondents, being the respondent obliged, in the majority of times, to answer from a set of predetermined answers, which decrease its variability. Besides that, the order in which the questionnaire will be answered by the respondent is already defined. Due to the easiness of spread the questionnaire in an online environment, an online survey was preferred. Thus, the survey was created and can be found on Appendixes N and O. It was spread through Facebook (accountable for more than 80% of the total number of responses), an entire company network and the author's friends and family.

## 6) Results[12]

In this section, all the results obtained during the research process will be presented. To be noted that the focus group sessions participants, interviewees and online survey respondents fit in target audience criteria early mentioned.

### a) Focus group sessions

As previously mentioned, two Focus Groups Sessions were conducted, with six participants each. "Necessity" is the main motivation that leads the participants to buy new fashion items[13]. The buying decision is judiciously made, since the majority of the participants clarified that in a first phase of the process they search for new fashion items online and then if they find an

[12] This section does not include the full extent of results – those can be found on Appendixes I, M and P. This is due to the fact that as the market research flew, the participants' enthusiasm, along with the structure of the methods that was used, gave rise to new ideas and topics that the author had not consider initially.
[13] The different types of needs can be found on Appendix I.

interesting piece, they would buy it offline, being, therefore, very clear the presence of the ROPO[14] effect. Zara, Mango and H&M were some of the brands highlighted as being the preferred ones. During those Focus Groups Sessions, the participants also pointed out Instagram influencers, Pinterest and Digital Stores as the main source of inspiration for possible looks and future purchases. For the majority of the participants, the mother figure was referred as someone who would be able to provide good insights about the fashion items in equation, namely if these items are classic pieces. However, if opinions go against personal tastes and style, they would ignore that and buy the item that they really want. The interventions made during the session suggested that the closet organization vary from person to person, being it a very personal subject[15]. When confronted with the virtual wardrobe app idea, in the second session, some of the participants suggested that there are already similar apps that do basically the same thing. However, neither of them was able to mention the actual name of one of those apps. Regarding the advantages of the app, they pointed out the following characteristics as the main ones: being able to track all of the fashion items they have and how can those match between themselves to create a look that meets their own, unique self-sense of personal style; receiving tailored feedback on their current closet composition, as well as which new pieces would make sense for them to buy considering not only what they already have, but also what is on their wish list and avoiding fast-fashion impulse buying, since by easily keeping track of every piece of clothing and respective condition via the app one would know exactly what one owns and not feel the need to buy something unnecessary. When asked about feedback about the app the outcome is the following: Sharing feature: interesting, but can become pretty invasive quite easily. All the participants seemed reluctant to the idea of letting anyone spy freely what they own. However, if they were allowed to share it strictly with people they gave the permission

[14] ROPO effect means research online and purchase offline. So before making the purchase in a physical store, the consumer, stud y this product through online tools, such as websites. Source: https://goo.gl/6dhxp1 [Retrieved on 17th/Nov/2017].

[15] The different types of closet organization methods can be found on Appendix I.

to, that would make this an exciting feature; Taking pictures of what they own: some of the participants liked the idea due to all the benefits something like this may generate; though, they disliked the idea of taking pictures of their outfit every day - they would not bother to do it and other ones really appreciated. Besides this feedback, the participants presented some useful additional features: Allow users to take pictures of items they see outside, for example, on the street, and have those immediately uploaded to the app and matched across a set of search engines, apps and online retailers that would tell the user where can they get that item on their picture; Avatar on the app, similar to "The Sims" game, where they could simulate different outfits; Tailored suggestions of outfits to wear given what one currently has; Having an online store directly on the app, in which you would be able to buy the app's suggestions, or any piece of clothing/accessory/shoe, directly on the app; Having a kind of personal shopper on the app, that would not only suggest what to buy and why, but would also indicate in which stores a specific item is available and its respective price[16]. Some of the participants mentioned that they would probably not use the app frequently (as the concept was presented at the time of the session) or even download it at all, as they feel that even though it may be something useful it does not bring enough value to justify its download or use more than a couple of times. The complete Focus Groups Sessions can be found on Appendix I.

**b) In-depth interviews**

Four In-depth Interviews were conducted to obtain new insights, as well as to validate ideas that emerged in the Focus Groups Sessions[17]. During the interviews, self-esteem, personal satisfaction inherent of the shopping ritual, the necessity of a new item, the desire for following the new trends and the need for variety were the main motivations for shopping pointed out. Three of the four interviewees, stated that their mother is the perfect company to go shopping

[16] The full range of suggestions can be found on Appendix I.
[17] The motivations can be found on Appendix M.

with. For them, mothers have a tremendous good taste and understand certain details, which are misunderstood by friends or other people. Fast-fashion brands, such as Zara and Mango, were identified by the majority of interviewees as the main choices for clothing items. These interviewees do not appreciate online shopping. The impossibility of touching and wearing the item before buying was the main reason pointed out for avoiding it. However, one of them used to buy online brands which do not have any physical stores in Portugal and another mentioned that if her available income increased, she probably would start to buy online brands that are unavailable in her country. The wardrobe organization is a very personal thing, being different from person to person[18]. Regarding previous research, half of the interviewees makes it through online tools before buying a new item, whereas the other half just makes this research for specific products or if they have little time to shop. When faced with the initial concept of the app, all of them liked it. Though, half of the participants classified the inventory process as a massively tedious and energy-consuming one, being an obstacle for using the app. The personal shopper feature and the one that allows users knowing where a certain item can be purchased were the features most appreciated by the interviewees. Besides that, some of them pointed out the Avatar functionality as an interesting tool. For the ones who really like knowing the outfit used in each occasion, the record feature becomes essential and one of the biggest usage drivers of this app, along with the fact that everywhere the users can see their wardrobes, which can avoid impulsive purchases. Even though, they have liked the idea, the majority of them suggested new features or important aspects to include in the existing ones[19]. According to them, a feature that gives advices about future purchases, should have price and location filters, since for them it is completely irrelevant suggesting an item with a price not aligned with her budget and from a store far from her town. A search feature that allows describing the ideal

[18] The different types of wardrobe organization can be found on Appendix M.
[19] The full range of suggested features could be found in Appendix M.

item would also be a great idea and a functionality that informs the user about the purchasing opportunities during sales season too. Two of the four interviewees stated that there is in the market apps similar to the proposed concept, but none of them are so complete as the author's concept under test. However, when asked about the names of those apps, just one interviewee mentioned Chicsissimo. The complete In-depth Interviews can be found on Appendix M.

**c) Online survey**

Out of the 1.079 responses obtained, the effective number of responses considered, after filtering out all the respondents that did not fit into the target audience criteria[20], was 556. Moreover, 79% make most of their purchases in a physical store, 12% do not buy any fashion item online and only 8% buy in both channels; 79% always do some sort of online research before going to the physical store to acquire the item; on average, 47% shop once a month, 32% shop once every semester, 15% shop once every two weeks, 3% go every week and the remaining ones only go out for shopping when it is really necessary (which means the amount of times can vary a lot). 64% do not consider themselves as being impulsive buyers, 33% admit that sometimes they make impulsive, not-thought through purchases and 3% think they are impulsive buyers. The vast majority of the respondents indicated the brand's own websites, Instagram and Facebook as being not only the main sources of inspiration for their style, but also the go-to places to check what is trending, prices and what is on the market overall. The top 5 brands mentioned were 1) Zara, 2) Stradivarius, 3) Pull & Bear, 4) H&M and 5) Mango. The features that were voted as the most valuable ones to be included in the app were: having an avatar, where the user would be able to test different outfits and styles; having a personal shopper that would suggest styles and how to best combine each item; to able to buy something directly through the app. The full results can be found on Appendix P.

[20] Target audience criteria: Portuguese female subjects only, aged 17-30 years old, who own a smartphone for at least 12 months and who have acquired at least one fashion item in the last 12 months.

## 7) Discussions

During this research, many results were found and interest trends/patterns identified. According to our results, the millennial fashion consumers spend time and energy choosing their fashion items, since they plan in advance the outfit for the next day or for future occasions and they make a previous research, mainly through online tools, to choose the best option when they need to acquire a new item. So, this finding confirms the literature previously studied. Results also displayed a mismatch between what literature defended versus what respondents affirmed in what concerns Sportswear: although literature suggested that the consumption of this sort of products takes an important chunk of the whole fashion market, respondents did not seem to buy and use these items often. The market research experts underlined that the viability of this new business idea could be dependent on the level of sophistication of the features included, since the costs to develop it would be so high that makes the idea unattractive for an entrepreneur. So, from analysing all the market research elements, the results suggest that it is a highly risky move to launch the app with the most attractive features found during the research - that is, to create and develop the technology, release it in the market as a new brand and expect realistically to create a sustainable profitable business in the short or medium runs. On the other hand, the results attained also suggest that the overall concept behind the app has the potential to become viral and add value to both consumers and brands that seek new ways to engage and interact with their customer base. Therefore, the author believes the app should be released by an already well-established brand, as an engagement complement of the set of digital communication channels it already has. Since Zara was one of the brands most mentioned by many of the studies participants (either as one of the preferred brands for purchases and as the one with the more app installs too), data suggests that Zara would benefit and boost its influence by creating this satellite app. For exemplification purposes, this complementary app would be called Zara Closet[21]. There are several pros in creating Zara Closet, as opposed to creating an app on one's own: 1) the financial requirements would be tremendous for an entrepreneur doing it on his/her own - the costs would include technology development and/or licensing for some of its features (e.g. the avatar that would allow anyone to try different styles directly in the app), setting up a competent, experienced and knowledgeable team and then marketing efforts -, whereas for a brand like Zara developing such app either internally or outsourcing it would be much less financially demanding (especially when it comes to marketing); 2) the brand would be able to directly advertise not only its products but also additional opportunities to its clients in a disruptive way, thus benefiting from first-mover advantage. The Zara Closet app should be created as a separate app and not as an extension of the current Zara app: the technology requirements (degree of sophistication and number of features) of this new app would make the current one too heavy (in terms of storage space) and very energy-consuming as well, if these were to be integrated as one. Although the strategy behind the whole concept of this satellite app would immensely depend on the company's strategy and digital vision, considering the results of the author's research, Zara Closet should have the following features and characteristics: 1) user and experience-friendly interface suited for the 17-30 year-old female tech-savvy target audience; 2) allow for direct in-app purchases; 3) avatar, where the user would be able to try different styles and outfits; 4) wish list, price-comparison and promotion alerts; 5) personal shopper that would provide suggestions on what and how to wear; 6) review section where the user would be able to check what other users have to say regarding some product/style/outfit/fashion item.

## 8) Conclusions

This dissertation, intended to assess the business viability of the virtual wardrobe app and its possible features. Considering the results attained, the author concludes that this idea has the

[21] Several respondents suggested the name Closet instead of Kloset, as well as MyCloset rather than MyKloset.

potential to become a profitable sustainable business, despite of all the costs inherent to the technology needed to develop the app, thus answering the main research question. The app should have the following features – 1) in-app ecommerce; 2) avatar, where the user would be able to try different styles and outfits; 3) wish list, price-comparison and promotion alerts; 4) personal shopper that would provide suggestions on what and how to wear; 5) review section where the user would be able to check what other users have to say regarding some product/style/outfit/fashion item. Therefore, it is believed that for a well-established brand, the virtual wardrobe app could be found interesting as part of its marketing and communication strategy, since it can be risky for an entrepreneur to build it from scratch without any sort of support.

## 9) Future research and implications (theoretical and practical)

### a) Future research

The extensiveness of the market research of this study and the freshness of the data collected create new opportunities for further research. The author found hard to find accessible, recent data sources regarding the Portuguese fashion market and consumers. Therefore, this project may allow several topics to be further developed that can have a direct and meaningful business impact for potential entrepreneurs today, as well as for more mature brands, that aim to get deep into the Portuguese fashion industry. Future research on some of the monetization potential of digital features highlighted by the participants of the different types of market research, such as price comparison and smart imagery recognition on the Portuguese market, are some examples. Moreover, with the increasing popularity and adoption of mobile technologies and the so-called smart devices, this study provides a basis for further refinement on relevant related topics, such as: the ROPO effect, applied to the fashion market; contradictions between market research participants' responses and actual behavior; market viability and potential of similar technological solutions that can be developed, not just for fashion-related products, but also to other types as well. Even though the research process was conducted in Portugal and through Portuguese individuals' feedback and opinions, conclusions can be extrapolated for other markets, products, audiences and industries.

**b) Theoretical implications**

This study can provide a better understanding of the role of certain variables influent throughout consumers' customer journeys. Study participants highlighted some of the pain points, needs and theoretical solutions for such problems and these can lead to the development of new behavioral analysis frameworks or to different uses of some of the already existing and widely used ones, by adapting in such way that makes them as effective and efficient as possible. Likewise, the results obtained from the market research enrich the knowledge pool on various subjects, from how Portuguese consumers perceive the fashion market, industry and brands, to the most preponderant behavioral variables responsible for shaping the consumers' customer journey. During this research, it was possible to conclude that the most used fashion brands type of among the target market studied is fast-fashion brands, mainly Zara, Pull & Bear and Mango. So, this research can be the basis for further researches about the importance, influence and usage of fast-fashion brands among the millennials fashion consumers. Since the mother figure was many times referred by the participants as an important source of suggestions, could also be interesting pursue further studies about the influence of mothers in the style and fashion purchase of millennials fashion consumers. As previously statement, the ROPO effect is clear among the behavior of the majority of the participants, so this project can be the starting point for further studies regarding this topic, firstly among the fashion industry and later to expand for other type of products, like electronics in which the buying decision process is more weighted due to the usual high price levels.

### b) Practical implications

By providing insights on what consumers with characteristics from (or similar to) the ones from the studied sample, entrepreneurs and intrapreneurs can draw impacting conclusions to their business strategy. Although the results obtained are mainly from a very specific audience, not only does literature suggests that this audience, in particular, has an effort-worthy business potential, but also can help to extrapolate conclusions to other audiences and businesses not covered by the scope of this project. In particular, the online survey data can be extremely useful, for the fact that the results are statistically significant[22] (sample size of 556 respondents) and quite recent. For entrepreneurs, this project can provide ideas to potential new business ideas or to ones that are on an early stage, which is especially important for those who are deciding to take the leap between risking to launch something new, from scratch, or follow the safer career path and join a company. For intrapreneurs in more well-established brands (in comparison with start-ups), it may lead to new product development and/or current product/service reshaping to something that better fits these consumers' needs.

## 10) Limitations to the research

One of the limitations is the apparent contradiction between some individual's statements and their own actions. For example, both on the focus group sessions and the questionnaires it was mentioned the importance of the in-app purchase feature. However, the results suggest that Portuguese millennials fashion consumers tend to make the vast majority of their purchases on the physical store, as they, among other reasons, do not feel comfortable in acquiring these sort of products online, which goes against the answers provided early. Furthermore, some of the participants of the focus group sessions, interviewees and respondents of the questionnaire indicated that they did not like very much the idea of virtually sharing their wardrobe with anyone else. Yet, some of those intervenients have different social media accounts, like

[22] A sample size (n) greater or equal to 300 individuals is believed to be statistically significance (Malhotra, 2010)

Instagram, where they regularly share pictures of what is going on in their lives with the that platform's community, including new outfits and styles – this is a common practice among social media users, especially among female subjects. Moreover, not all of the factors that some may consider important to assess the market viability of the app were tested thoroughly: specific features, the influence of brands towards and purchasing behavior, among others. In order to further research on these, it would have been required to run more questionnaires, interviews, as well as other types of market research, and maybe also extend the number and understanding deepness of each topic and question of the ones that were conducted. According to the market research experts previously interviewed, for further research phases with the main objective of testing the app, a prototype should be used to avoid different interpretations of the product. Furthermore, the considered sample may not be representative of the entire market that may become a user of the app (assuming it is going to be launched). The experts interviewed are Portuguese and shared their experience and view on how to best approach the Portuguese consumers and market. The interviewees (of the in-depth interviews, other than the experts), participants of the focus group sessions and respondents of the questionnaires were also Portuguese, belong to a predetermined age gap, female, tech-savvy and also shared their views and opinions mostly based on what they know about the Portuguese fashion landscape. Thus, these intervenients' insights may not be indicative of how consumers from other countries would react to the emergence of such solution, so misleading conclusions about the global market potential of the app may be drawn. Besides that, the questionnaires responses were collected online, making the author control at the time of the response almost non-existent, allowing, therefore, other's influence under the responses given by the participants.

## References


- Milley, Marissa and Mack, Ann. 2009. "The new female consumer: The rise of the real mom". Advertising Age: 2-22;
- Cardoso, P. R., Costa, H. S., & Novais, L. A. 2010. "Fashion consumer profiles in the Portuguese market: involvement, innovativeness, self-expression and impulsiveness as segmentation criteria". International Journal of Consumer Studies: 638-646;
- O'Cass, A. 2004. "Fashion clothing consumption: antecedent and consequences of fashion clothing involvement". European Journal of Marketing, 38: 869–882;
- Im, S., Bayus, B. & Mason, C. 2003. "An empirical study of innate consumer innovativeness, personal characteristics, and new product adoption behavior". Journal of the Academy of Marketing Science, 31: 61–73;
- Rogers, E. 1995. Diffusion of Innovation, 4th edn. New York: The Free Press;
- Gutman, J. and Mills, M. 1982. "Fashion life style, self-concept, shopping orientation, and store patronage: an integrative analysis". Journal of Retailing, 58: 64–86;
- Workman, J. and Studak, C. 2006. "Fashion consumers and fashion problem recognition style". International Journal of Consumer Studies, 30: 75–84;
- Banco de Portugal. 2017. "Projeções para a economia portuguesa: 2017-2019". Accessed December 3rd. https://www.bportugal.pt/;
- Correios de Portugal. 2016. "E-Commerce Report. CTT 2017". Accessed December 2nd. https://goo.gl/SuqiXN;
- SIBS. 2016. "SIBS Market Report 2016 Comércio Digital". Accessed December 2nd 2017. https://www.sibs.pt;
- Euromonitor International. 2017. "Apparel and Footwear Global Industry." Retrieved from Passport database http://www.portal.euromonitor.com;
- Euromonitor International. 2017. "Channel Overview in Apparel and Footwear." Retrieved from Passport database http://www.portal.euromonitor.com;
- Euromonitor International. 2017. "Apparel and Footwear in Portugal." Retrieved from Passport database http://www.portal.euromonitor.com;
- Hill, C.E; Knox, Sarah; Thompson, B.J.; Williams, E.N.; Hess, S.A and Ladany, Nicho. 2005. "Consensual Qualitative Research: An Update," Journal of Counseling Psychology, 52(2): 196–205
- Remy, Nathalie; Schmidt, Jennifer; Werner, Charlotte; Lu, Maggie. 2014. "Unleashing fashion Growth city by city". Mckinsey&Company: 2-5;
- Mckisney&Company. 2016. c. Accessed November 15th 2017. https://www.mckinsey.com/industries/retail/our-insights/the-state-of-fashion;
- Telegraph. 2009. "Women spend nearly one year deciding what to wear". Accessed October 20th. https://goo.gl/kT2kzy;
- Cabral, Francisco. 2015. "Impact of mobile app user acquisition on managerial decisions: Evidence from empirical experiment". Nova School of Business and Economics: 4-24;
- IAB & PwC. 2014. "IAB internet advertising revenue report". Accessed 2nd November. http://www.iab.net/media/file/IAB_Internet_Advertising_Revenue_Report_FY_2013.pdf
- Forbes. 2014. "$1 Billion In Under 5 Years: 12 Hot Tech Startups". Accessed 20th October. https://goo.gl/G3Z2Xq;
- Medium. 2015. "Farfetch's journey to a $1bn valuation, blending creativity and technology to form a European Unicorn". Accessed 30th October. https://goo.gl/EfJi53;
- Portugal Fashion 2017. "Farfetch: the unicorn that is not a myth". Accessed 30th October. https://www.portugalfashion.com/en/news/farfetch-the-unicorn-that-is-not-a-myth/;

- Mk tool box suite 2017. “What is a unicorn startup?”. Accessed 21st November. https://goo.gl/UFB6d6;
- Statista. 2017. “Global apparel market size projections from 2012 to 2025, by region (in billion U.S. dollars)”. Accessed 30th November. https://goo.gl/1o3efM;
- Integreon. 2009. “The Global Fashion Industry – Growth in Emerging Markets”. Accessed 27th November. https://goo.gl/vYURBm;
- Invstr. 2017. “What are emerging markets and why are they important?”. Accessed 17th November. https://invstr.com/emerging-markets-important/;
- Marktest. 2015. “Campanhas Promocionais – O consumidor e os canais de comunicação”. Accessed 27th November. https://goo.gl/ki1WXW;
- Eco. 2017. “IRS, pensões, derrama… o que o novo OE reserva para 2018”. Accessed 29th November 2017. https://eco.pt/2017/11/28/irs-pensoes-derrama-o-que-o-novo-oe-reserva-para-2018/;
- Jornal de Negócios. 2017. “OE 2018: IRS passa a sete escalões e em todos eles há alívio de impostos”. Accessed 30th November. https://goo.gl/NS1nsC;
- Jornal Económico. 2017. “Quase 100% dos consumidores portugueses comparam preços antes de comprar”. Accessed 2nd November. https://goo.gl/qVTGBk;
- Marketeer. 2017. “45% dos produtos são vendidos em promoção”. Accessed 2nd November. https://goo.gl/d3TSM5.;
- Observatório das Desigualdades. 2017. “Utilização de internet: em Portugal mais de metade da população teve acesso à internet em 2016”. Accessed 3rd November. https://goo.gl/BnTq5G;
- Sapo. 2016. “Portugueses usam cada vez mais os telemóveis para navegar na internet”. Accessed 3rd November. https://goo.gl/G79hDz;
- Observador. 2016. “Uso das redes sociais em Portugal triplicou em sete anos, mas empresas utilizam-nas pouco”. Accessed 3rd November. https://goo.gl/Ms6UFC;
- Marketeer. 2017. “Qual é a rede social mais utilizada em Portugal?”. Accessed 3rd November. https://goo.gl/6zM4Bo;
- Itpro. 2017. “Does your organisation comply with the new data protection rules?”. Accessed 23rd December. https://goo.gl/JpD4eC;
- EUGDPR. “FAQ’S”. Accessed 23rd December. https://www.eugdpr.org/gdpr-faqs.html;
- Pagefair. 2017. “How the GDPR will disrupt Google and Facebook”. Accessed 23rd December. https://goo.gl/DMFe1p;
- LSE. 2010. “FAQ 1: When is it better to do qualitative or quantitative research?”. Accessed 28th October. https://goo.gl/RU9fTr;
- Expert Journals. 2017. “How to Write a Research Methodology for Your Academic Article”. Accessed 28th October;
- Malhotra, Naresh K. (2010). Marketing Research: An Applied Orientation. 6th Edition.
- Georgia Institute of Technology. Prentice Hall. P. 40, 100, 101, 139.
- Stylicious. 2017. “Stylicious”. Accessed 3rd November. http://styliciousapp.com/;
- Closetapp. 2017. “Closetapp”. Accessed 3rd November. http://closetapp.com/;
- Stuffnstyle. 2017. “Stuffnstyle. Accessed 3rd November. http://stuffnstyle.com/.