



# Optimizing NAU Beer's distribution strategy: Analysis of the online channel

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## Abstract

**Thesis Title:** Optimizing NAU Beer's distribution strategy: Analysis of the online channel

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Distribution channels' strategy is important for firms' success, since an effective distribution strategy may increase sales and, as a result, have a positive effect on firms' overall performance. Today, with the growing importance of online channels and social networks, firms tend to define strategies combining efficiently these channels with offline channels.

Therefore, this study aims to analyse which individuals' characteristics lead consumers to choose the online channel to buy NAU Beer, as well as, the impact of this channel on firm's indirect channels and the importance successfully integrate different channels. A survey of consumers' willingness to use the online channel conducted to Portuguese citizens showed that consumers tend choose online channel to purchase NAU Beer if they are users of this type of channels. This fact reinforces the idea of no cannibalization of sales among physical and online channels, assuming there are costumers who are general online buyers, which will consider buy NAU Beer online, but also consumers who have a clear preference for the physical channel.

Furthermore, through interviews with other craft beer brands, it is possible to conclude that the importance of online channel goes beyond its contribution to sales and its strongly related to the need of having a broad and integrated presence in todays' trendy channels, like social networks, as a key factor for the construction of a solid relationship with customers.

## Resumo

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A estratégia de distribuição é importante para o sucesso das empresas, considerando que, uma estratégia de distribuição efetiva poderá aumentar as vendas e ter um efeito positivo na performance geral da empresa. Atualmente, com a crescente importância dos canais online e das redes sociais, as empresas têm tendência a definir estratégias que combinam de forma eficiente os diferentes canais.

Desta forma, este estudo pretende analisar que características aumentam a preferência pela compra de Cerveja NAU através do canal online, bem como o impacto deste canal nos restantes canais e a importância da integração dos diferentes canais.

Através de um questionário realizado junto da população portuguesa sobre a preferência pelo canal online, conclui-se que os consumidores tendem a escolher este canal para comprar Cerveja NAU se forem utilizadores habituais do mesmo. A ideia de inexistência de canibalização de vendas entre os canais físicos e os canais online é reforçada, assumindo que existem consumidores que utilizam o canal online frequentemente, tendo maior tendência a optar pelo mesmo para comprar NAU, mas existem ainda consumidores que têm preferência por comprar nos canais físicos.

Através de entrevistas com outras marcas de cerveja artesanal portuguesa, é possível concluir que a importância do canal online é mais abrangente do que a simples contribuição para as vendas, sendo que este canal está relacionado com a necessidade de ter uma presença vasta e integrada nos canais relevantes no contexto atual como um fator chave para a construção de uma relação sólida com os consumidores.

## Preface – Acknowledgments

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# 1. Introduction

Distribution channels are still an important source of competitive advantage (Neves 2001) and, therefore, finding an optimal distribution strategy which maximizes firms' performance can be crucial for firms' success.

In the past, two different channel structures have been studied separately: direct channel and indirect channel. More recently, academics have started to study the integration of both structures at the same time, adapting to new reality of many firms using multiple channels.

Today, this trend has been reinforced by the presence of Internet, which is becoming an extra channel for firms to provide information about and sell their products (Wu et al. 2008). This channel represents an opportunity for firms, since it can be integrated in previous strategies, and is a way to reach more consumers, generally associated with low costs when compared to direct physical channels and higher margins for the company when compared with indirect physical channels.

The decision-making process involved in the choice of an optimal distribution strategy is time consuming, due to the variety of factors that should be taken into consideration, but is a main priority for all firms in all stages.

Also for start-up companies, it has a pronounced importance since the choice of a wrong strategy can compromise the future of the company.

As a start-up company, NAU Beer entered in the market in the beginning of 2015, selling a new craft beer concept to those who are fond of high quality beverages. Aiming to be perceived as unique NAU beer is produced solely through handcraft methods and the ingredients are 100% natural, such as pure clean natural water and careful selected grains and hops. Today, NAU beer sells only one craft beer, with 75cl of capacity. The company's current strategy relies on high quality and refine packaging to transmit the idea of exclusivity. Their product is being sold in different physical channels, such as restaurants, bars and gourmet stores, and also through the company's website.

Although, the firm is present in multiple channels, the number and volume of the orders are not being as positive as NAU Beer's founders were expecting it to be.

Taking all of this into consideration, the purpose of this research is to understand which specific situational factors and consumers' characteristics influence their willingness to use the online channel, as well as understand to what extent the existence of an online distribution

channel influence the other distribution channels. As result, this dissertation aims to give some insights about NAU Beer's optimal solution regarding its distribution channels, and more specifically the online channel.

In order to do so, this research aims to answer the following questions:

- (1) Do consumers consider the online channel a relevant channel? Which factors and characteristics influence consumers' decision of buying online?
- (2) What is the impact of having an online channel in the existing physical channels?
- (3) What could be the optimal distribution strategy for NAU Beer?

With the intention of achieving meaningful and applicable conclusions, different data was collected and analyzed, namely through the distribution of an online survey and interviews performed with managers of current and possible NAU Beer' distribution channels and managers of other brands of Portuguese craft beer.

This dissertation is sectioned into six chapters, starting with a brief overview of the context in which the dissertation's topic is inserted. The second chapter will focus on a review of relevant the literature on the importance of distribution strategies, the use of indirect channels and direct channels, the Internet as a new distribution channel, the characteristics that define online channel's costumers and the use of multiple channel and omni-channel strategy. On the third, the methodology used to collect and analyze the data will be explained. The fourth chapter consists in the analysis of the data, its results. The fifth chapter will be presenting key conclusions, making a brief overview of what has been discussed in this dissertation, and will give recommendations regarding NAU Beer's optimal distribution strategy. The last chapter will be focus on the limitations of this research and possible future research.



## 2. Literature Review

### 2.1 Importance of the distribution channels

#### 2.1.1 Importance of the distribution strategy for companies overall strategy

The evolution of the economy caused a growing number of companies to highlight channel management as one of their major priorities. This growing importance relies on the fact that distribution can be seen as a way to build sustainable competitive advantages (Frazier 1999). Marketing channels are focused on people and relationships and they are expected to last some time, since its adoption requires a consistent structure (Neves 2001).

Planning distribution channels implicates choices that have influence on the value that the firm delivers to its customers (Majumdar & Ramaswamy 1995). The company has to guarantee that the distribution channels are selected in a way that maximizes customers' benefits. Simultaneously, the firm has to ensure that these benefits are delivered at the lowest cost, including not only the costs of the system management, but also the costs related with the loss of value to the customer when benefits are not maximized (Rangan et al. 1993).

Considering the long-term character of the distribution strategy, the process of application and development of the strategy is possibly as important as the core theoretical framework itself (Rangan et al. 1992).

#### 2.1.2 Important factors to define the distribution strategy

Every business trend that might have some impact on end-customer's preferences for products or services and channel participants' capability to successfully serve end-customers will straightly influence the company and the management of distribution channels (Frazier 1999). Therefore, many authors have studied the different factors affecting the choice of distribution channels such as the adoption of a single direct or indirect channel, multiple channels of the same type or a combination of different channels, achieving some diverse conclusions. Some authors defend that the nature of the competition in the retail market has a major influence on manufacturer's distribution strategy (Tirole 1988), while some emphasize the importance of the impact of the products' characteristics (Rangan et al. 1992).

Complementarily, the impact of the interactions of channels with other elements of the marketing mix was also studied, concluding that channel choice can be accurately ideal only when considered simultaneously with other marketing components (Rangan et al. 1992).

More particularly, regarding the choice of integrate or not the distribution channels, some authors have concluded that when faced with the strategic choice of using direct channels versus the option of using intermediaries, transaction costs and customer benefits are significant considerations and that the size of the firm has a positive effect, suggesting that a potential decrease in costs ascending from the existence of scale economies will influence channel integration (Majumdar & Ramaswamy 1995). In addition, other author consider that the ultimate determining factor of channel integration will be the average order size from each individual customer, since small to moderate-sized clients cannot be economically served by traditional direct channels, as selling and operational costs would probably exceed the revenues (Frazier 1999).

## **2.2 Implementation of direct channels**

### **2.2.1 Going direct to the market through integration of channels**

As said before, some authors have focused their studies in understanding when integration of channels is an optimal strategy and which factors affect firms' decisions on this subject. According to some authors, firms are more likely to rely on direct channels if facing high uncertainty in the market, but their decision is also highly dependent of some exchange factors, as product criticality, product customization and auxiliary services which seem to have impact on whether to integrate or not. (Majumdar & Ramaswamy 1995).

Highlighting the positive results of integration, authors found evidence that the use of a direct channel gives the manufacturer the opportunity of creating a niche market and attracting a distinct customer base, reinforcing loyalty, gaining a higher margin and escaping from retailer's domination (Chen et al. 2012). For manufacturers, adding a direct channel will have a positive impact, since it not only forces the retailer to decrease selling price, which will probably increase the demand, but also creates more profit for the manufacturer by owning the direct channel (Cai 2010). However, for retailers it might have a negative impact, as the development of the direct channel may squeeze their market share and result in a decline of their profit (Chen et al. 2012).

Today, in order to explore the benefits of both structures, a growing number of manufacturers are restructuring their sales and marketing strategies by embracing dual channel, with direct sales in addition to the conventional indirect channels, aiming to satisfy diverse customers' purchasing preferences since the traditional channels are not enough to achieve their goals (Cai 2010).

### 2.2.2 The use of internet as direct sales channel

The fast development of technology and the Internet offers to manufacturers, who before had only used traditional retail stores as distribution channels, opportunities for modernization and the capacity to sell directly to the client through Web-based channels, allowing for costs savings, increase in revenue and expansion to new segments of the market (Chen et al. 2012).

In the traditional physical distribution channel, retailers provide product information through product demonstrations, while, in the electronic channel, new technologies are allowing electronic retailers to make more information available to consumers, although that quality of information is limited comparing to physical channels (Wu et al. 2008). Retailers in the physical channel can offer information about physical and digital characteristics of products, however retailers in the electronic channel can provide information only about digital features (Lal & Sarvary 1999).

Different authors agree that consumers' search costs are significantly reduced in the electronic channel. (Alba et al. 1997; Lynch & Ariely 2000). Without the presence of internet, the cost of search can be defined as the cost of visiting more than one store. However, in the presence of internet the cost of search is related to the cost of undertaking the entire shopping trip, since, with the introduction of the internet, consumers can order products on the online channel, so they do not have to undertake the shopping trip at all (Lal & Sarvary 1999).

Given this change of paradigm in search costs due to the introduction internet, electronic direct channel may attract some consumers who do not take the risk of searching for products with better non-digital characteristics at the physical stores. Therefore, it will attract customers who prefer purchasing products from the manufacturer's website after viewing product photographs and descriptions online to save transportation cost and time (Chen et al. 2012), but also customers who may end-up buying online the product they are familiar with, increasing consumer's loyalty (Lal & Sarvary 1999). Although, the traditional physical channel possibly

will capture those customers who do not have easy access to Internet or who have a clear preference for buying the product after seeing it on the shelf (Chen et al. 2012).

Furthermore, the impact of the reduction of the search costs on consumers' willingness to pay is not completely clear. On one hand, consumers incur in a lower search cost in the online channel when compared to physical channel, what can increase their willingness to pay. On the other hand, the electronic channel can only deliver information about the digital characteristics, leaving consumers exposed to a higher risk, what can decrease consumers' willingness to pay when they decide to buy through this type of channel (Wu et al. 2008). Particularly for differentiated products, like wines, the first effect seems to be stronger, since lowering the cost of search for quality information reduces price sensitivity (Lynch & Ariely 2000).

The introduction of an electronic channel will strengthen the competition in the market, but not necessarily changed the focus towards price. Manufacturers and retailers have the opportunity to educate consumers about the benefits of their products, since they will provide more information at a lower costs, simultaneously, it will make it easier for consumers to do products' comparison not only based on price (Alba et al. 1997).

The implementation of an electronic channel could be positive for a company that does not have a strong position with retailers, for instance, small or new firms which find it hard to obtain shelf space (Neves 2001). For these manufacturers, a direct online channel might decrease barriers to entry by making it possible for consumers to locate them, operating, simultaneously, as an advertising tool (Alba et al. 1997).

### 2.2.3 Consumers' characteristics influencing online purchases

The impressive growth of internet shopping, during the last years, has been driven by greater emphasis on consumers' effective use of time, along with an increasing number of computer-trained consumers. This tendency is creating a really competitive marketplace in which customers have more shopping choices than ever. (Young et al. 2004).

Furthermore, academics have been studying variables which may affect consumer's choices regarding distribution channels. Different factors were found to influence the acceptance of Internet as a sales point and consumer's willingness to buy products online. For some decades, motivational factors, as perceived ease of users and perceived usefulness, have been emphasized by Technology Acceptance Model (TAM) as crucial for determining individual's acceptance of information technology (Davis et al. 1989). Thereafter, different authors had

complement TAM, considering that other variables also affect consumers' IT acceptance and use (Moon & Kim 2001).

With the aim to explain consumers' attitudes and intention toward online shopping, additional explanatory factors were added (Perea y Monsuwé et al. 2004). Therefore, distinct factors as demographics, Internet experience, normative belief, shopping orientation, shopping motivation, personal traits, online experience, psychological perception, and online shopping experience were studied. Although, many studies had focus their research on understanding the impact of these factors, only some factors were found to have consistent effects, while others were found to have mixed or even contradictory impacts (Zhou et al. 2007).

Regarding demographics, four variables were found to have some importance on the choice of channel and preferences of shopping features, namely: age, gender, education, and income (Burke 2002).

More specifically, the internet has usually been defined as "a young man's medium", since young men have been seen as the usual profile of the primary adopters of online shopping. However, as the internet has become more global, the profile of the online shopper has come closer to a representation of the general population (Sorce et al. 2013). Being unique as a descriptive characteristic of an individual, when compared to other generally used personality or demographic variables, age plays a clear role in consumers' beliefs, opinions on and adoption of online shopping (Wood 2002). Today, the age gap between online and non-online consumers is fading, however, there are strong generational differences in what individuals valued most in the purchasing experience. Different studies found that younger adults, especially those under age 25, were significantly more interested in using newer technologies to discover new products, search for product information and compare alternatives (Wood 2002; Burke 2002). A possible reason for this fact might be that older customers may perceive the benefits of online shopping to be less than the cost of investing in the skills needed to do it efficiently, and, therefore, they tend to avoid online shopping (Ratchford & Talukdar 2001). Even though, the impact of age on individuals' intention to purchase online remains uncertain. Some analysis recognized a negative relationship between age and the probability online channel's choice (Joines et al. 2003), whereas other reported a positive relationship or no relationship at all (Li et al. 1999). As a reason for this discrepancy in research results, some authors point the possible different criteria used for defining age groups in different studies (Zhou et al. 2007).

With regard to gender, the effect on online shopping behavior is also not completely clear, although researchers agree that men and women have distinct views of what would be part of a

perfect shopping experience. On one hand, men stated a greater interest in using various types of technology, and therefore are more positive about using Internet than women. On other hand, the female consumers who have a preference towards online shopping, shop more frequently than men (Burke 2002; Li et al. 1999).

Additionally, education also seems to play a moderating role in shoppers' attitude toward online channel use. Higher educated individuals are more comfortable using non-store channels, like the internet to shop (Burke, 2002), possibly because education is often positively correlated with an individual's level of internet literacy (Li et al., 1999). Simultaneously, there is some evidence that consumers with higher household incomes shop more online compared to lower income consumers, assuming that individuals with higher income have more access to internet and technology (Perea y Monsuwé et al. 2004), a diminishing tendency on today's world.

Despite all possible effects stated above, demographics and lifestyle variables were found to explain only a small percentage of people's choice behavior, leading some authors to defend that the most important information for predicting shopping habits are measures of past behavior and not demographics (Bellman et al. 1999). Past online purchase experiences may have a direct impact on online purchase intentions, as demonstrated by some researches' findings (Weber & Roehl 1999). Generally, individuals evaluate their online shopping experiences based on perceptions regarding product information, delivery terms, risk involved, entertainment and enjoyment (Burke, 2002). If prior online experiences were positive, customers will continue to use the online channel in the future (Shim et al., 2001), since such experiences will probably decrease the risk perceived by consumers. On other hand, prior knowledge about the product and product's category was also found to impact online purchase, since once an individual has consumed a specific product, information about product's attributes can be used again for the next purchase, dissolving the need of having the store experience (Ratchford & Talukdar 2001).

## **2.3 Multiple Channel**

### **2.3.1 Multiple Channel Strategy**

Multiple channel strategy, can be defined following two distinct perspectives. One would be to describe a multiple channel as when a manufacturer uses a direct channel to serve large customers and an indirect channel to sell to medium or small customers. The other would be to define a multiple channel as when one product is sold to one segment of the market using more than one primary channel (Frazier 1999).

The aim of increasing the market share and reduce costs has been the motivation behind the establishment of multi-channel arrangements (Frazier & Antia 1995). Furthermore, this type of arrangements have grown during the last decades, becoming the rule rather than the exception, as a response to the fragmentation of markets, the evolution of the technology and the intensified interbrand competition (Frazier 1999).

Using a multichannel strategy, particularly one formed by one direct and one indirect channel, firms experience various benefits. Primary, it allows them to adapt to shifting shopping patterns and customer needs. In addition, companies with a broad range of products can benefit because it is improbable that a single channel category will be optimal to sell all products. Moreover, firms with excess of production can use extra outlets when others channels are saturated with supply. Lastly, additional channels allow firms to target more precisely specific market's segments, since competing on multiple channels allows firms to provide selected groups of consumers with different amounts of information and thereby differentially affect consumers' expected utility, thus improving their competitiveness and market power (Webb & Hogan 2002; Zettelmeyer 2000). Furthermore, when firms do use multiple channels in the introduction phase of a new product, they tend to be complementary, due to the fact that several potential clients exist (Frazier 1999).

Although, besides all the benefits stated before, intrachannel conflict and intrabrand competition might become main problems, resulting in decreased levels of support in the company's indirect and direct channels (Frazier 1999). Particularly, multiple channels can place conflicting demands on internal firm resources such as human and capital resources, products, and technology. Additionally, incompatible objectives of different channels can lead to internal conflicts over clients, raising the potential for customer dissatisfaction and confusion (Webb & Hogan 2002).

The effects of this intrafirm, interchannel, conflict on channel performance might be both positive and negative. On one hand, the efficient allocation of assets, resulting from competition interchannel, guarantees that scarce channel resources are applied where there is a major need for them, leading to a positive effect on performance. Especially, during the growth stage, channel conflict can act like a mechanism for finding creative ways to improve channel efficiency. On the other hand, internal disagreements between the channels' managers may lead to an internal focus decreasing customer orientation. Considering this, manage this internal conflict in a way that allows for performance's maximization is a major concern for firms (Webb & Hogan 2002).

### 2.3.2 The "brick and click" business model

During the last years, there was a growing sentiment among manufacturers and retailers that the use of a multichannel strategy can result in synergies emerging from the combination of the physical stores working as billboards of the brand, catalogs providing attractive reminders to buy, and the Internet offering an omnipresent storefront (Avery et al. 2012).

Regularly, manufacturers face a decision of whether to add a new distribution channel in addition to their current channels. During the last decade, with the popularity of the Internet, many suppliers have started selling directly online (Cai 2010).

As referred before, the addition of one online channel, supplementary to the existent physical channels, may allow companies to achieve better consumer segmentation across channels and, consequently, reduce competition by strategically managing search costs (Riggins 2004), since it might relieve some of the competitive pressure that arises from customers with a high disutility of search (Zettelmeyer 2000). Furthermore, this strategy can also generate a competitive advantage as it can increase customer base, as a result of the acquisition of new customers through the provision of online services, improved customer loyalty and, also, increase purchases and reduce costs, as a result of the spillovers effects each channel can have (Boehm 2008; Ward 2001).

All these advantages can be further exploit by integrating the e-commerce channel with assets in the physical channel and by adjusting existing business processes to accommodate the new e-commerce capability (Steinfeld 2004).

Channel integration is defined as the degree to which different channels interact with each other (Bendoly 2005). An integrated Internet store stimulates service quality and reduces risk,



since it helps combine online and offline channels according to their particular ‘conspicuous or experiential capabilities’ (Avery et al. 2012).

Following past research, channel integration, particularly, online-offline integration creates synergies rather than cannibalization, since additional sales in the integrated Internet stores are generated from customers that would otherwise buy from non-integrated, third-party online stores and not from physical stores (Herhausen et al. 2015). Thus, the main goal of creating seamless customer experience across channel is to form reciprocal and synergetic effect between online and offline (Jiang et al. 2015).

Customers’ perception of integration across channels and customers’ trust building towards retailers are positively correlated. However, seeing integration only as price matching is not enough, they have to create deeper customers trust by extending channel consistency, including integrated information, integrated channel access and integrated customer service (Jiang et al. 2015). Taking this into account, firms should provide sufficient and integrated information to allow for comparisons across channels. Furthermore, firms should see the community as an effective way to attract customers, since online community has an advantage over gathering a large number of potential customers while offline community can be treated as a location of picking or returning products (Jiang et al. 2015). As a result, a variety of benefits can be realized, such as potential cost savings, differentiation through value-added services, improved customer trust and loyalty, as well as market extensions (Steinfield 2004).

Contrastingly, the introduction of an internet channel may also have unintended negative effects for firms that fail to adjust their overall channel design to accommodate the new direct channel. More specifically, the addition of a channel of distribution such as Internet might increase goal incompatibility among existing channels, since the new strategies to reach customers can compete with or bypass existing strategies (Steinfield 2004; Webb & Hogan 2002). As a consequence, this incompatibility between channels can damage overall channels performance. Therefore, is crucial for the firms that the new channel is added in a way that minimizes domain similarity and goal incompatibility (Webb & Hogan 2002).

Despite this negative effects, integrating digital tools and technologies into existing business models and adopting current business models to new technologies are the most important strategies to address the challenges of the popularity of digital tools and technologies threatening existing business models (Leeflang et al. 2014). Nevertheless both offline and online channel have unique advantages for different client types during purchasing process, each channel may present a distinctive offer to meet customer requirement and therefore

contribute to the generation of a comparative advantage in a multichannel context and to consumer satisfaction (Kollmann et al. 2012).

## **2.4 Omni-channel**

With the ongoing digitalization and the appearance of online channels, the retailing world has changed radically in the last two decades. To counter these changes, as explained before, many retailers have adopted multi-channel strategies (Verhoef et al. 2015). Now, the market is moving towards a new phase regarding distribution strategies. In recent years, the further digitalization in marketing and retailing made firms face some particular challenges. More concretely, with the emergence of the mobile channel, tablets, social media, and the integration of these new channels in online and offline retailing, retailers' structures continue to evolve (Leeflang et al. 2014). Considering this, media and some authors are suggesting that companies are changing from a multichannel to an omni-channel retailing model (Rigby 2011).

Omni-channel retailing reflects the idea that retailers should be able to interact with clients through numerous channels, namely: websites, physical stores, kiosks, direct mail and catalogs, call centers, social media, mobile devices, gaming consoles, televisions, networked appliances, home services and more (Rigby 2011). Additionally, the management of this type of structure can be described as the synergetic management of the various available costumers' touchpoints and channels, optimizing customer experience and channel's performance across channels (Verhoef et al. 2015). Taking this into account, the success if the implementation of this type of strategy requires manufacturers and retailers to adopt an entirely new perspective (Rigby 2011).

Today, customers want to enjoy the advantages of the digital service, but they still want to benefit from the in-store experience. Basically, they want to have access to nearly limitless selection, price transparency and personalized recommendations from friends and experts, using the digital channel, combined with face-to-face interaction and products availability for trying out, arising from the social experience of shopping as an event at the store. Considering this, although distinct customers may attribute different value to specific parts of the shopping experience, generally, they all are likely to desire perfect integration of the digital and the physical. Therefore, for today's consumers who increasingly want everything, omni-channel strategy appears to be the most effective way for retailers to satisfy the growing needs of these consumers (Rigby 2011).

Comparing omni-channel with multichannel strategy, we can observe that the first involves a higher number of channels and that those channels' natural borders become less obvious as channels integration increases. As a result, the traditional division between the interactive communication channels and the one-way communication channels start to disappear. More precisely, with this strategy the different touchpoints and channels are used simultaneously, interchangeably, and constantly by both firms and costumers to simplify the consumers' purchase experience. Thus, the omni-channel strategy is not only extending the scope of channels, but also deepening the interaction between customers, the brand and distribution channels (Verhoef et al. 2015).

Adopting an omni-channel strategy is a complex process. Firms have to adapt their offer to the specific changes occurring in the market: products can more easily be customized to the preferences of costumers; consumers' awareness depend not only on company's marketing efforts, but also on recommendations from friends on Facebook and expert reviews; and the shopping experience includes searching for several vendors and comparing prices (Rigby 2011).

Concluding, an effective omni-channel strategy should not only guarantee a firm's survival, but, simultaneously, transform customer expectations and experiences, through the complete integration of digital and physical services, mixing the benefits of the in-store shopping with the information-rich experience of the online service (Rigby 2011).

## 3. Methodology

### 3.1 Research Questions

This dissertation is focused on answer three main questions:

- (1) Do consumers consider the online channel a relevant channel? Which factors influence consumers' decision of buying online?
- (2) What is the impact of having an online channel in the existing physical channels?
- (3) What could be the optimal distribution strategy for NAU Beer?

### 3.2 Methodology Used

Aiming to answer to the previous questions, both primary and secondary data was collected. Firstly, as described in the previous section, a literature review was realized to expand the knowledge about distribution channels, particularly, about strategies that combine multiple and diverse channels. In addition, by analyzing previous studies, a brief analysis of the overall Portuguese craft beer market was done. Secondly, primary data was collected through different methods: distribution of an online survey to the consumers, interviews with indirect physical channels, and interviews with some competitors.

### 3.3 Data Collection

#### 3.3.1 Survey

##### 3.3.1.1 Survey context and development

An online survey of consumers' willingness to buy NAU beer was conducted during 20<sup>th</sup>-27<sup>th</sup> April of 2016 to Portuguese citizens. This survey was divided in two different analysis related to the project developed with NAU beer. As some questions were important for both analysis and as distribution would be more efficient, my colleague and I decided to do a common survey with two different parts corresponding to each analysis. The main goal of my

analysis was to understand which factors are important when customers have to choose whether to buy a product online or at physical stores, more specifically which factors influence their choice of buying NAU beer through the online store.

The survey involved different types of questions linked to factors which may affect the choice of channels, as: consumption of alcoholic drinks, consumption of traditional beer and craft beer, general willingness to buy through online stores, proximity of physical stores, differences in prices, discounts offered, delivery costs, order size and sociodemographic characteristics.

First, to ensure that only people with legal age to consume alcohol were able to answer the survey, respondents were asked if they were 18 years old or older, and if not they could not proceed. Then, questions about alcohol and beer consumption were asked and only possible consumers of NAU beer were able to continue the survey. Furthermore, to certify that respondents understood NAU beer's concept, a description exported from company's own presentation was included in the survey. As the core part of the survey, multiple questions were asked to understand consumers' willingness to buy NAU beer through the online channel and how it changes with different factors.

To guarantee the clarity and quality of the survey, a pre-test was done to a sample of six people. As a result, some changes were made before making it available for the general public.

#### 3.3.1.2 Survey distribution and analysis

The distribution of this survey was done online. In total 899 respondents started the survey, but only 726 completed it and therefore only the latter count for the analysis's performance. Moreover, 3 respondents were under 18 years old, thus their answers were erased since they cannot legally consume alcohol. In addition, answers from 91 respondents who did not consume alcoholic drinks were also erased, as they do not represent NAU beer's consumers or possible consumers. Following the same logic, answers from 74 respondents who said they have tried but not like craft beer were also erased. Additionally, in the middle of the questionnaire an attention question was asked to test if respondents were thoughtfully answering or not, and therefore 13 respondents who did not answer what was asked were erased from the sample. After all, the number of answers considered for analysis' purpose was 545.

Firstly, in order to describe the sample, some descriptive statistics were performed, mainly regarding demographics, alcohol and beer consumption and online shopping habits. Thereafter,

a multiple linear and a logit model were applied to study which consumer's characteristics influence the online purchase of NAU Beer.

### 3.3.2 Interviews

#### 3.3.2.1 Interviews with channels

Existing and possible distribution channels of NAU were interviewed with the aim of collecting relevant information about the interaction of these channels with the direct online channel of the company. The questions related with this specific subject were incorporated in a broader interview performed to achieve other conclusions for the general project delivered to the company.

All interviews were done during the course of four weeks, from March 14 to April 11, accomplishing a total of nine interviews: 3 interviews with restaurants, 3 with bars and 3 with gourmet stores. Those interviews were performed mainly with existing or previous channels, but also with two possible future channels which were considered to be coherent with company's target and objectives, listed on Appendix 1.

The first part of the interview consisted in a brief introduction of the concept and product specific characteristics, in order to guarantee that the person interviewed was familiarized with the concept of the brand and with the product.

After this introduction, research related questions were asked in order to understand the impact of the online channel in these channels and the importance of the integration of channels for the development of the brand and the increase of sales. To obtain concrete answers, the first two questions asked directly if they believe that the existence of an online channel would have any type of impact in their channels and, if yes, what type of impact. In addition, the third question asked more specifically if sale price would be affected. To conclude, on the fourth question, the objective was to understand if they see integration of channels as something important.

Furthermore, questions related to prices, costs and margins were asked with the aim to compare these values with values of the online direct channel.

### 3.3.2.2 Interviews with competitors

Interviews with some NAU Beer's competitors were performed with the aim of collecting relevant information about the use of an online channel and its importance.

During two weeks, from April 11 to April 25, different competitors were contacted. Among the contacted companies, only three were available to be interviewed (for a list of interviewed companies please see Appendix 1).

The competitors' selection was based on the following criteria: brands with products sold in the same distribution channels where NAU is present.

Research related questions were made in order to understand how different companies use the online channel and how important they consider it. It is also worthy to mention that different questions were asked depending on the existence or absence of an online sales point. More particularly, the first question asked if they currently use the website as a sales channel, and, depending on the answer, they were asked to answer distinct questions. On one hand, brands which use online channel were asked about specific characteristics of their online sales, as: the difference in price comparing to other channels used, if there is a minimum size order under which they do not accept orders; if the delivery costs are included in the listed price and the height of online sales on their overall sales. On other hand, companies which do not have an online sales point, were asked if they had it in the past and if they see it as a possible channel to be use in the future.

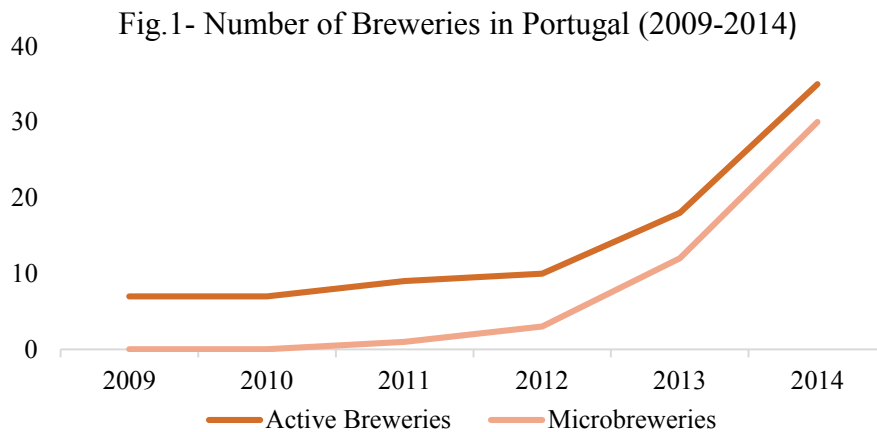
Additionally, some questions were asked to both groups, regarding their presence on other channels and the impact of the online channel on physical channels.

As a conclusion, with the aim to understand the importance of the integration of channels, questions regarding their presence on social media and the benefits of having an integrated strategy were presented.

## 4. Data Analysis

### 4.1 Analysis Context: Portuguese Beer market

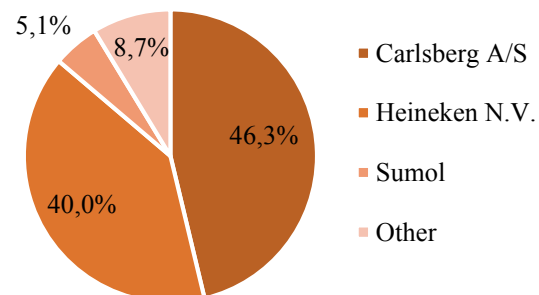
The Portuguese beer market is changing. Accordingly to Beer Statistics 2015 Edition, beer production and beer consumption in Portugal have decreased during the last years, while the number of active breweries is growing, especially as a result of the appearance of more microbreweries (see Figure 1). Following the data from the same report, in 2014 there were 30 microbreweries in Portugal (Van de Walle 2015). The increase in the number of microbreweries is consistent with the recent growth of the craft beer in Portugal, as today we can find online more than 88 different brands producing Portuguese craft beer.



Source: Beer Statistics 2015 Edition

Although, looking at Beer in Portugal Industry Profile elaborated by MarketLine, we can see that in 2014 standard lager beer is still the larger segment of Portuguese beer market, accounting for 83.7% of the market's total value. In addition, the leading players, Carlsberg A/S owner of Super Bock brand and Heineken owner of Sagres, generate respectively 46.3% and 40% of the market's volume (see Figure 2).

Fig. 2- Market Share in 2013 (%)

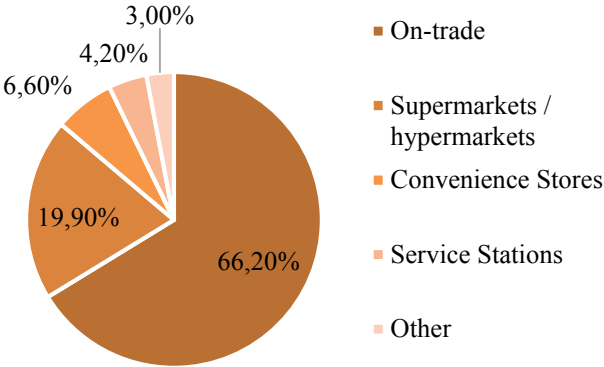


Source: MarketLine



Furthermore, regarding distribution of channels of beer in Portugal, On-trade channels are the major channel, accounting for 66% of market distribution share, followed by supermarkets and hypermarkets with 20% (see Figure 3).

Fig.3- Distribution Market Share in 2013(%)



Source: MarketLine

As conclusion, we can see that, although some investment in production equipment is necessary before entry into beer market, this investment might be recovered if companies are able to add a good margin to the price of the end-product (Marketline 2014). High quality beers, and unique craft beers can easily charge premium prices, making it possible to enter the market on a small scale. The growing number of microbreweries in Portugal illustrates this phenomenon, with small producers using differentiation strategies to enter in a market which has a strong competition on the mass market segment.

**4.2 Online Survey Analysis**

The analysis of the survey is divided in two different sections. Firstly, the sample will be described through the use of descriptive statistics. Then, an analysis of factors which have a significant effect on consumer’s decision to buy NAU Beer online will be done using regression models.

**4.2.1 Descriptive Statistics**

#### 4.2.1.1 Demographics

The demographic variables considered in this survey were age, gender, education level, professional situation, average monthly income and residence.

Regarding age, five distinct age groups were created. The major group was composed by 372 respondents aged between 18 and 24 years old, corresponding to 68% of the sample. In addition, the other groups accounted for the following percentages of the sample: 14% formed by respondents aged between 25 and 35 years old; 6% formed by respondents aged between 36 and 45; 10% formed by respondents aged between 46-60 years old; and only 2% were respondents with more than 60 years.

There was a clear predominance of 18-24 years old group over the others, and lack of answers by elderly people. Although it can be seen as a limitation, it is coherent with the target of the company, which is more focus in younger population.

In terms of gender, 57% of the respondents were female, while 43% were male, meaning that the questionnaire was answered by 312 women and 233 men.

In relation to education level, 86% of the people surveyed had superior education (53% had a Bachelor Degree, 31% had a Master Degree and 2% had a PhD or more), while 14% had High School level and only one individual had elementary school level.

Concerning professional situation, 58% of the individuals were students, 38% were employed and 3% and 1% corresponded to unemployed and retired people. There is an evident predominance of students which was expected given the age of the majority of respondents and the reasons presented before for that characteristic of the sample.

With respect to monthly average income, five different groups were created: 37% respondents answered it was below 300 €, 12% between 300 € and 499 €, 22% between 500 € and 999 €, 17% between 1000 € and 1999 €, and 12% equal or higher than 2000 €.

Last but not least, with regard to residence, the analysis was done firstly dividing between respondents who live in Portugal and who do not: 90% of respondents live in Portugal, while 10% live abroad. Among the ones who live in Portugal, the distribution across NUTS II (Nomenclature of Territorial Units for Statistics) was the following: 67% of individuals live in Lisbon Metropolitan Area, 15% in the Centre, 13% in the South, 3% in the North and 2% in Madeira and Azores. As we can see, there is a significant difference in the number of respondents living in Lisbon Metropolitan Area comparing to the remaining NUTS II, what might be a limitation for the analysis (see Figure 4).

Fig.4- Demographic Table

| Demographics        | Groups                   | % of respondents |
|---------------------|--------------------------|------------------|
| Age                 | 18-24                    | 68%              |
|                     | 24-35                    | 14%              |
|                     | 36-45                    | 6%               |
|                     | 46-60                    | 10%              |
|                     | >60                      | 2%               |
| Gender              | Female                   | 57%              |
|                     | Male                     | 43%              |
| Education Level     | Elementary School        | 0%               |
|                     | High School              | 14%              |
|                     | Bachelor Degree          | 53%              |
|                     | Master Degree            | 31%              |
|                     | PhD or more              | 2%               |
| Professional Status | Student                  | 58%              |
|                     | Employed                 | 38%              |
|                     | Unemployed               | 3%               |
|                     | Retired                  | 1%               |
| Income              | <300 €                   | 37%              |
|                     | 300 € - 499 €            | 12%              |
|                     | 500 € - 999 €            | 22%              |
|                     | 1000 € - 2000 €          | 17%              |
|                     | >2000 €                  | 12%              |
| Residence           | Lisbon Metropolitan Area | 60%              |
|                     | Centre                   | 13%              |
|                     | South                    | 12%              |
|                     | North                    | 3%               |
|                     | Madeira and Azores       | 2%               |
|                     | Outside Portugal         | 10%              |

Source: Online Survey

#### 4.2.1.2 Respondents' habits of consumption of alcohol and beer

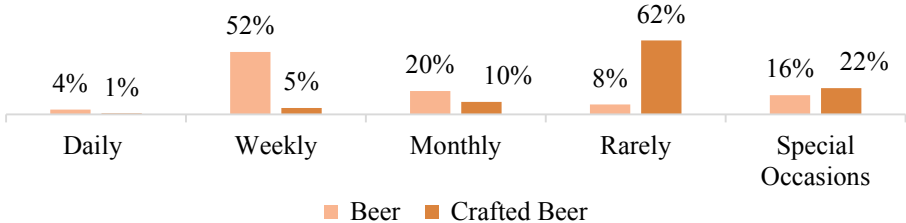
As explained before, for analysis purposes the sample was reduced to 545, including only possible consumers of NAU Beer. Therefore, in addition to other changes, 74 respondents who said they do not like craft beer were not considered.

Regarding the frequency of alcoholic beverages consumption, 61% of respondents indicated they do it frequently, at least once a week, while 39% consume this type of drinks less regularly. Additionally, when asked to select the specific drinks they consume more frequently, the most mentioned were beer and wine (400 and 290 times), while other drinks like spirituous drinks, cider, champagne and liquors were less stated.

More particularly, among consumers who like (56%) or have never tried (44%) craft beer, 86% like normal beer, while 14% do not.

Furthermore, it is interesting to compare the frequency of consumption of the two distinct types of beer. Regarding normal beer, 56% said they usually consume it at least once a week, 20% do it on a monthly basis, and 24% only drink it rarely, mainly in special occasions. Contrastingly, the consumption of craft beer among respondents is less frequent: only 6% said they consume it at least once a week; 10% do it monthly; and the majority, 84%, consume craft beer rarely or just in special occasions (see Figure 5).

Fig. 5- Frequency of consumption among respondents



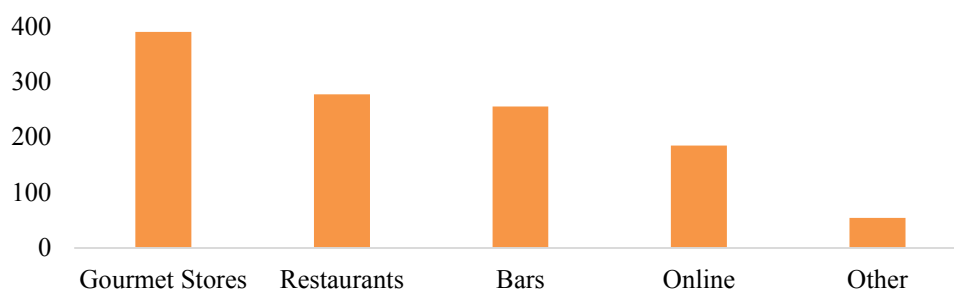
Source: Online Survey

In addition, to understand the awareness of NAU beer, respondents were asked whether they were or not familiar with the brand. The outcome revealed that only 11% already knew the brand.

4.2.1.3 Consumers’ expectations regarding NAU distribution channels

Respondents were asked in which channels they expect to find NAU beer. To answer these questions they could select more than one option, if they expected to find it in more than one specific type of channel. Five options were presented, four corresponding to actual distribution points of the company (bars, restaurants, gourmet stores and online channel) and a free text box which respondents might fulfill with other channel (other). The most mentioned channel was “Gourmet Stores”, mentioned 390 times, followed by “Restaurants” chosen 277 times and “Bars” selected 255 times. In addition, “Online” was mentioned 185 times. The free text box, “Other”, was selected 54 times, with supermarkets being the most mentioned channel (49 out of 54 times), and with some references to beer events and parties (see Figure 6).

Fig 6- Expectations regarding NAU's distribution channels



Source: Online Survey

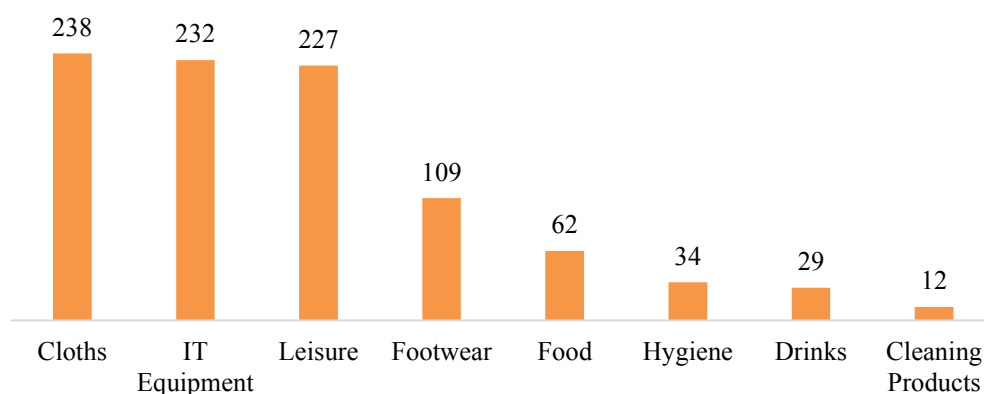
#### 4.1.2.3 Consumers' online shopping habits

Among the 545 respondents, 45% said they generally buy products online, while 55% indicated the contrary.

Regarding the frequency of online purchases, 18% said they never buy online. Other respondents were grouped across frequencies in the following way: 33% only do it once a year; 32% usually do it once a month; 12% indicated they buy online more than once a month; 5% do it once or more than once a week; and only 1 individual does it in a daily basis.

In terms of type of products bought online, respondents could select more than one type of product. The most selected categories were cloths, IT equipment and leisure all chosen more than 200 times. Other categories as footwear, food, hygiene and drinks were also commonly mentioned, while cleaning products was the category less mentioned (see Figure 7).

Fig.7- Products bought online



Source: Online Survey

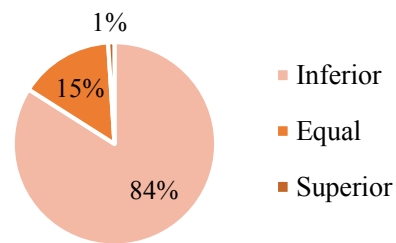
#### 4.2.1.4 Consumers' willingness to buy NAU beer online and important situational factors influencing their decision

To understand consumers' willingness to buy NAU Beer online, respondents were asked whether they would consider buying this product online, and 33% respondents said they would probably not buy it online.

When asked whether they would not buy online due to the proximity of a physical store, the majority of respondents answered that they would not buy online if the closer store was in their neighborhood, near their workplace or 5km from their home.

Concerning price comparison between online and physical stores, 84% of the respondents said they would only buy online if the price was inferior to the sale price of the physical stores. In addition, 15% said they would buy online if the price was equal to the price of the other channels, and only 1% said they would prefer to buy online even if the price online was superior (see Figure 8).

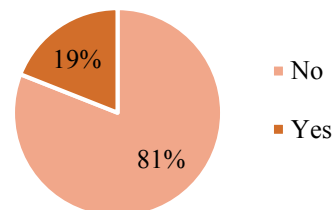
Fig 8- Comparison of prices and online purchase



Source: Online Survey

With regard to delivery costs, 81% respondents indicated they would not buy online if delivery costs were not included in the price and if it makes the price equal or slightly superior to the price of physical stores. Only 19% of the individuals said they would still buy the product online under those conditions (see Figure 9).

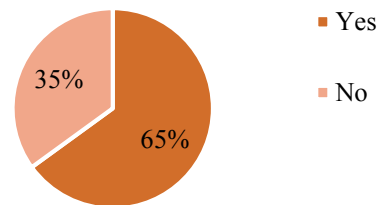
Fig 9- Would still buy online if delivery costs were not included in the price?



Source: Online Survey

Last but not least, considering the size of order, 65% of respondents considered that the probability of doing a larger order online is higher than the probability of ordering online a smaller order, contrastingly 35% did not agree with the previous statement. Among, the ones who were more willing to buy online a larger order, the most indicate reasons behind that decision were the opportunity to take advantage of the delivery service, which would be useful for a large quantity of product, and the expectation of getting a quantity discount (see Figure 10).

Fig.10- Is the probability of order a large quantity online higher than the probability of order a smaller quantity?



Source: Online Survey

#### 4.2.2 Model of consumers' characteristics influencing online purchase

Accordingly to the revision of literature previously done, some factors seem to have impact on consumers' online shopping behavior namely: demographic characteristics, past online experiences and product category's knowledge. In order, to test whether these variables influence the choice to buy NAU beer online data collected through the online survey was analyzed. With the aim to provide a complete representation of how these variables are combined to affect consumer's behavior, multiple regression and logit regression analyses were conducted.

The dependent variable of the analysis, the consumer's online buying behavior, was measured by asking if respondents would consider buying the product online. The response categories were "yes" or "no". Furthermore, respondents who answered "no" were considered as non-online buyers, while respondents who said "yes" were considered possible online buyers.

Furthermore, in order to achieve meaningful conclusions, based on literature and due to the characteristics of the data collected, variables were transformed to be used in the model.

Regarding demographics, respondents were asked several questions, including relevant variables as age, gender, education, and income. Although, following relevant literature income and age are sometimes correlated. Due to the characteristics of the sample, variables these two variables are strongly correlated, meaning that a higher income is associated to an older age, so for the purpose of this analysis only variable age will be considered. Furthermore, to measure

the variable age in the survey, five categories were created: “18-24”, “25-35”, “36-45”, “46-60”, and “over 60”. However for analysis purpose, and taking into account evidence found by some authors, variable age was recoded to present only two different values: under or over 25 years old. It is important to mention that this manipulation guarantees meaningful results because, due to the age distribution of respondents, both groups have relevant sizes. In addition, education and income measures were submitted to a similar recode process. Education was divided into five categories (“Elementary School”, “High School”, “Bachelor Degree”, “Master Degree” and “PhD or more”), and was recoded to represent two different groups: individuals without (Elementary School and High School) and with Higher Education (Bachelor, Master, PhD or more). Gender question was also included in the survey, dividing between “Male” and “Female”, and was not subject to any recode.

With regard to past online experience, individuals were asked whether they consider themselves general online buyers, independently of categories of products or other specificities. The ones who answered positively were considered consumers with online purchase experience, and therefore consumers with some degree of channel knowledge and preference.

Concerning the knowledge about the product and product’s category, the sample was reduced to respondents who consume alcoholic beverages and, additionally, consumers who do not like craft beer were also excluded. Therefore, as possible relevant variable for the analysis, the frequency of alcohol consumption was measured by asking the frequency of consumption of alcoholic drinks, being the more frequent “once a day” and the least “only on special occasions”. For the analysis purpose, consumers were grouped into two groups, frequent and non-frequent consumers, being considered frequent consumers if they said to consume it at least once a week.

Thereafter, a detailed explanation of the transformed variables used in the model can be found in Figure 11.

Fig.11- Transformed Variables description

| Variables                 | Names            | Values Interpretation  |
|---------------------------|------------------|--|
| <b>Dependent Variable</b> | <b>BuyOnline</b> | <b>1, if respondent said he would buy Nau online, 0 otherwise</b>    |
| Independent Variables     | Ageunder25       | 1, if respondent have less than 25 years old, 0 otherwise            |
|                           | Female           | 1, if respondents is female, 0 otherwise                             |
|                           | HighEduc         | 1, if respondent have Higher Education, 0 otherwise                  |
|                           | Frequentalcohol  | 1, if respondent consume alcoholic beverages frequently, 0 otherwise |
|                           | Onlinebuyer      | 1, if respondent is consider a general online buyer, 0 otherwise     |

*Source: Own analysis*



To estimate a model which better explains online purchase behavior regarding NAU's beer based on the variable presented above, different models were estimated. Starting with a model composed only by demographic variables and subsequently adding other relevant variables. The outputs of the different models can be seen in Figure 11.

Fig.11- Models' Outputs

| Models/Values      | Beta          | Std. Error   | t             | P                  | Model Statistics                |
|--------------------|---------------|--------------|---------------|--------------------|---------------------------------|
| <b>Model 1</b>     |               |              |               |                    |                                 |
| Intercept          | 0,735         | 0,062        | 11,892        | < 2e-16 ***        | N=545<br>$R^2 = \mathbf{0,014}$ |
| <b>Ageunder25</b>  | <b>-0,119</b> | <b>0,044</b> | <b>-2,723</b> | <b>0,007**</b>     | Adj. $R^2 = 0,009$              |
| Female             | -0,015        | 0,042        | -0,372        | 0,709              | F= 0,471                        |
| HighEduc           | 0,022         | 0,058        | -0,381        | 0,704              | d.f.= 3, 541<br>p<0,1*          |
| <b>Model 2</b>     |               |              |               |                    |                                 |
| Intercept          | 0,701         | 0,070        | 10,031        | < 2e-16 ***        | N=545<br>$R^2 = \mathbf{0,016}$ |
| <b>Ageunder25</b>  | <b>-0,116</b> | <b>0,044</b> | <b>-2,658</b> | <b>0,008 **</b>    | Adj. $R^2 = 0,009$              |
| Female             | -0,002        | 0,043        | -0,053        | 0,958              | F=0,471                         |
| HighEduc           | 0,019         | 0,058        | 0,32          | 0,749              | d.f.=4, 540                     |
| Frequentalcohol    | 0,045         | 0,043        | 1,047         | 0,296              | p<0,1*                          |
| <b>Final Model</b> |               |              |               |                    |                                 |
| Intercept          | 0,589         | 0,069        | 8,597         | < 2e-16 ***        | N=545<br>$R^2 = \mathbf{0,104}$ |
| <b>Ageunder25</b>  | <b>-0,105</b> | <b>0,042</b> | <b>-2,53</b>  | <b>0,012</b>       | Adj. $R^2 = 0,096$              |
| Female             | 0,025         | 0,041        | 0,604         | 0,546              | F= 0,449                        |
| HighEduc           | -0,026        | 0,055        | -0,458        | 0,647              | d.f.=5, 539                     |
| Frequentalcohol    | 0,043         | 0,041        | 1,046         | 0,296              | p<0,01 ***                      |
| <b>Onlinebuyer</b> | <b>0,284</b>  | <b>0,039</b> | <b>7,276</b>  | <b>1,22e-12***</b> |                                 |

Source: Own analysis

In order to test which variables are statistically significant, and which should be taken into account as variables with a relevant impact on the willingness to buy NAU Beer online, we should consider the P-value associated. The P-value is the estimated probability that we observe the estimated coefficient ( $\beta^1$ ) when the real coefficient ( $\beta_1$ ) is zero, corresponding to the probability of a Type I error. A value lower than 5% is generally accepted as statistically significant, meaning that we can reject the null hypothesis that the coefficient is equal to zero, meaning no effect of the variable. Therefore, a variable associated to a low P-value is probable to be a significant addition to our model, since changes in its values are related to changes in the dependent variable.

As a general conclusion, we can see that being older than 25 and being a usual online buyer are the consumer's characteristics with a relevant impact on the use of the online channel to

purchase NAU beer, since the P-value correspondent to the coefficients of these variables is lower than 5%.

However, in order to make a better interpretation of the coefficients, a logit regression was estimated using variables of the Final Model, as can be seen in Figure 12.

Fig.12- Logit Regression

$$BuyOnline = -0,54Ageunder25 + 0,11Female - 0,12HighEduc + 0,22Frequentalcohol + 1,39OnlineBuyer + \varepsilon$$

Source: Own analysis

This approach makes sense since the dependent variable is a binary variable, and therefore, although the Linear Model is sufficient to study the significance of variables, Logit Regression allow us to posteriorly calculate the average marginal effects, presented in Figure13.

Fig.13- Average Marginal Effects

| Variables       | Marginal Effects |
|-----------------|------------------|
| Ageunder25      | -0,106**         |
| Female          | 0,023            |
| Higheduc        | -0,023           |
| Frequentalcohol | 0,043            |
| Onlinebuyer     | 0,280***         |

Significance codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05

Source: Own analysis

Therefore, interpreting marginal effects we can see that the probability of buying NAU Beer online is on average about ten percentage points lower for people under 25 years old than for people with age equal or greater than 25 years old, *ceteris paribus*, . In addition, we can also see that the probability of buying NAU Beer online is on average about twenty eight percentage points higher for general online buyers than for people who generally do not use this channel, *ceteris paribus*.

Furthermore, even though age has a significant impact, comparing Model 1 to the Final Model we can see that analysis's results reinforce the idea of some authors who stated that demographics variables were found to explain only a small percentage of people's choice behavior, being the most important information for predicting shopping habits the measures of past behavior and not demographics (Bellman et al. 1999).

Despite the presence of significant variables in the model, we can see that the Final Model only explains a small part of the variation of the online purchase decision. Accordingly to previous studies, this low value can be explained by the fact that the model aims to predict a human behavior which is the product, not of specifiable antecedent conditions, but of spontaneous inner changes of course (Skinner 1953). Even though, as the aim of the analysis is to understand which variables affect the willingness to buy online and not to precisely predict the behavior, this model's output helps distinguishing the offline from the online consumer, giving a simplified but yet significant profile of the online channel user (for a detailed explanation of all the steps included in the analysis please see Appendix 2).

#### **4.2 Interviews of distribution channels**

As explained before, all the interviews began with a brief introduction of NAU Beer's concept and product, followed by some questions regarding the overall opinion about the product and the company. All the channels interviewed emphasized that the demand for Portuguese craft beer is growing, and that NAU Beer's innovative concept can bring something new to the market if the company applies the right strategy. Although they all agree that the market is growing, they still consider it as a niche market, since even people that consume beer frequently are more used to consume traditional beer. Therefore, based on their experience as sales points, they considered that products like NAU are more likely to be consumed by someone who already has some interest and knowledge about craft beers or, in some specific cases, by someone who is willing to try new products.

When asked about the existence of an online distribution channel to sell the beer directly to end-customers, the majority considered that it might be a good strategy to reach a higher number of possible buyers and to increase the brand awareness, although it requires a lot of effort and publicity, which is missing in their actual strategy.

Regarding the impact of the online channel on their channels, the managers of bars, restaurants and gourmet stores diverge in their opinions. Bars and restaurants' managers, in general, agree that the impact would be null or small, arguing that the service offered is completely different, allowing for price differences, and adding that they believe there is demand for both channels. However, gourmet stores' managers believe the impact on their type of channel is stronger, since the service offered is more similar to the online experience, and

therefore consumers are more concerned about price differences. More particularly, when asked about the direct impact on the sale price, gourmet stores' managers were more concerned about the effect of the difference in prices, saying that their price has to be similar to the online price, otherwise the online channel would cannibalize their sales and made it impossible for them to keep selling the product. In addition, they said that to be competitive they would have to diminish their margins, meaning that if the online price is too low it would squeeze their margins to a point that it would not be profitable for them to keep selling the brand. On the other side, bars and restaurants' managers agree that the price established on the online channel has little impact on their selling price, since they offer a different service and experience, increasing consumers' willingness to pay a higher price. In order to illustrate their opinion, they recalled the example of wine, which, in some cases, is sold at a much lower price on online stores when compared to the price charge in restaurants and bars, and from their experience that difference in price does not have a negative impact on sales.

To conclude, on the topic of integration of channels, managers of all types of indirect offline distribution channels seemed to agree that it is something crucial for success on today's market. With the growing power of social networks and online communities, having a strategy that integrates these marketing and sales tools with the offline sales points has benefits for all, the company, distribution channels and consumers. On one hand, it maximizes the reach of the brand and brand awareness, consequently increasing the number of possible customers and potential sales. On the other hand, aligning the efforts done by channels in an integrated way is a win-win situation, because the company will end-up publicizing bars, restaurants and stores, but the inverse will also happen. Simultaneously, they believe consumers will also benefit from deeper integration of channels since they would have a greater experience combining online and offline advantages.

In addition, other questions regarding prices, costs and margins were asked for posterior comparison with the online channel.

### 4.3. Analysis of Online Channel Strategies

#### 4.3.1 Analysis of actual NAU Beer Online channel

As previously explained, NAU Beer entered in the market in the beginning of 2015, selling a new craft beer produced solely through handcraft methods and with 100% natural ingredients. Currently, the company is only producing one product and selling it in a 75cl format with a refine package to transmit the idea of exclusivity.

Furthermore, as referred before, NAU Beer is present in different channels including multiple offline channels and a website. Until now, online sales have not been as good as expected, being the main reason appointed by its founders the lack of an efficient marketing strategy to promote this channel. Although, this channel is just accounting for 2% of the total sales so far, the advantage of this channel relies on the fact that there are no fixed costs associated. Currently the online sale price to consumers is 8,5€ per bottle, corresponding to 6,91€ plus VAT, allowing for a 42% profit margin, which is a benefit when compared with the margin received using indirect physical channel 24% (see Figure 14).

Fig.14- Margins using indirect channels and online direct channel

| Indirect Channels |                |              |            | Online Direct Channel |                |            |            |
|-------------------|----------------|--------------|------------|-----------------------|----------------|------------|------------|
| Variable Costs    | Delivery Costs | Retail Price | Margin (%) | Variable Costs        | Delivery costs | Sale Price | Margin (%) |
| € 3,50            | € 0,30         | € 5          | 24%        | € 3,50                | € 0,50         | € 6,91     | 42%        |

*Source: NAU's Data*

In addition, the average price charge to consumers in the indirect channels is around 12€ per bottle, accordingly to the information collected during the interviews. Therefore, in the online channel the final price charge to consumers is lower than the price in the indirect channels and the margin of the NAU Beer is higher.

Regarding the integration of channels, NAU Beer is clearly working to improve their presence and integration across different channels. Besides the website, NAU Beer is also present on social networks as Instagram and Facebook pages. In these pages is possible to find the Website link, and, in the Website is possible to get information about NAU Beer's current offline channels, facilitating consumers' access to information about different channels.

#### 4.3.2 Analysis of interviewed companies' strategies

As explained before, among all the contacted companies, only three managers were available to participate on the interview. Regarding the use of an online channel, two interviewed companies have an online channel, while the other have a website but without an online store.

Taking into account the information collected during the interviews with NAU's competitors, it is possible to conclude that exists an evident difference between the online price and the sale price at physical stores. More particularly, companies stated that the online price is lower than the offline price. Interviewed companies stated the service characteristics and the lower costs associated with the online channel are the two main factors which justify this difference. On one hand, the inexistence of the store's experience, as personalized staff assistance, might decrease consumers' willingness to pay. On the other hand, the inexistence of this additional service allows companies to have reduced costs associated with online sales, what consequently will allow them to reduce online sale price.

Regarding minimum size of order, both companies stated that they do not have a required amount to allow consumers to order online, all orders are accept, but, as the delivery costs are not included, consumers might only do it if the amount compensates the extra cost. In addition, one company indicated that delivery costs are not charged to consumers if they order a large amount.

Although, the percentage of total sales which is done through the online channel is clearly small. Companies still use the online channel and consider it an important asset for their business. Bearing this in mind, we can see some evidence that the role of this type of channel goes beyond just selling the product. Along with the website, all interviewed brands are present in other channels, as indirect online channels and indirect and direct physical channels.

Concerning the use of the website as a way to promote other channels, only companies which use the website as a sales point, also mention other channels on it. Their decision rely on the fact that their major source of revenues are physical stores, and they believe online sales do not have a negative impact on other sales, since channels are used by different consumers. Therefore, they use the website as a way to promote other channels and leverage physical stores' sales.

Contrastingly, only the company which does not use the Website as a sales point, does not have information about other stores on the Website. Additionally, the manager of this company,

is also the only one who believes that online channel may have a negative effect on other channels, due to the fact that it might increase price competition and reduce offline sales.

As a conclusion, all managers referred the presence on social networks as crucial for their success. It allows a constant contact and active feedback between consumers and the company, which improves firms' knowledge about consumers and, therefore, might improve performance and customers' satisfaction. Align with this general idea, different managers also agree that integration of channels has multiple benefits for all players involved. Managers stated that it improves the coherence and transparency of the brand across all channels, simultaneously maximizing brand awareness and extending brand reach.

## 5. Conclusions and Recommendations

### **5.1 Consumer's perceptions about the online channel and characteristics and situational factors influencing online shopping decision.**

Regarding consumer's perceptions about the online channel and based on the results of the online survey, we can see that although it is not the most mentioned channel, it is still a channel through which a relevant part of consumers expect to be able to purchase NAU Beer. Furthermore, we can also see that there is evidence that some situational factors influence the choice of channel. More particularly, in spite of not benefit from impulse buying, consumers will more probably choose to buy online if the closer physical store which sells NAU is more than 5km away from their home. In addition, consumers also stated that the choice of channel would be influenced by the price, since the majority stated that they would choose online channel if the price is lower when compared to other channels. Simultaneously, based on the analysis of our sample results, we can also see that consumers seem to be averse to delivery costs, as the major part of respondents stated that if those costs were not included in the price, and therefore, result in a higher price, they would not buy it online. Moreover, the size of order also seems to be relevant for the decision-making process, as respondents agreed that the probability of buy online increases when the order is larger, being the most stated reasons the advantage of having the delivery service and the expectation of getting a quantity discount.

Additionally, the willingness to use the online channel is also affected by individuals' specific characteristics, being age and past online purchase experiences the most relevant ones, accordingly to the data collected. Following the results we can expect the willingness to buy NAU Beer online to be higher for an individual with 25 years or more, keeping other factors constant. However, it is important to mention that in this case, due to the characteristics of the sample, age was considered to be correlated with income and professional status, which might be relevant variables in other studies. In addition, following the results we can also say there is evidence that being a general online buyer will increase the probability of buying NAU Beer through the online channel. As referred before, these results are consistent with previous studies, since demographics only explain a small percentage of individual's behavior, being the most important characteristic related with individual's past behavior and experience with this type of channel.



## **5.2 The impact of the direct online channel in the indirect physical channels**

Concerning the impact of the online direct channel in the indirect physical channels, only gourmet stores' managers consider the possibility of negative impact, due to the cannibalization of their sales as a result of consumers' migration to the online channel and due to the possible forced reduction of their margin in order to be able to compete with the online price. Managers of other types of channels, namely restaurants and bars, consider that the negative effect is small or even null, since they believe that there is demand for both types of channels. This latter idea is consistent with the analysis of the situational factors and personal characteristics which demonstrated that the preference over one type of channel depends on concrete factors and specific characteristics of the buyer. There is evidence that not all consumers prefer one specific channel and each decision is influenced by situational factors, meaning that, for example, even a customer with a clear preference for the online channel can, under different conditions or in particular point in time, choose to use the offline channel.

Furthermore, there is evidence that the positive effect of this channel can surpass the possible negative effect if the right strategy is applied. The use of the internet allows for broader contact with customers and makes information available for a larger base at a lower cost. An efficient strategy uses the online channel to leverage overall sales, providing valuable information to customers and using an integrated approach to transmit coherence and transparency over the multiple channels.

## **5.3 The importance of the online channel and integration of channels**

Looking at market's statistics and NAU Beer and other brands' data we can see that the percentage of the overall sales resulting from the online channel is clearly small. Although, a relevant part of the firms in the market keep using it as a channel, showing that the importance of this type of channel goes beyond its share of overall sales. When compared to a physical channel, the online channel represents a way to reach more consumers at higher pace and with lower costs. Furthermore, integrating the online channel and using it as a direct channel allows for higher margins when compared to indirect channels, since there is not a third party involved.

Besides these clear advantages in costs and margins received, having an online direct channel brings other benefits, which sometimes are not taken into account because they are not so easy to quantify. Using the online channel as a platform where consumer can find all the

information about the company, can be a key factor to increase customer trust and willingness to buy. Having all the information available and the possibility of purchase at one location reduces customers' search costs and improves the overall shopping experience. Moreover, including information about price and other selling points increases the perceived transparency of the brand and motivates not only online but also offline purchases.

Furthermore, aligning company strategy with its indirect channels' strategies on an integrated way is a win-win situation, because the company will end-up promoting its indirect channels, aiming to leverage its product sales, but the inverse will also happen, since indirect channels will also promote company's product with the aim to increase their sales. Doing so in an integrated and previous specified manner will exposed both players to a higher number of consumers, simultaneously decreasing the risk of transmitting different ideas to the consumer and, therefore, maximizing the perceived coherence of their brands.

#### **5.4 Recommendations**

Following the conclusions of the research conducted, the recommended strategy for NAU Beer distribution channels is an omni-channel strategy, combining multiple channels, mainly leveraging benefits of the online channel which cannot be achieved using exclusively other channels.

Therefore, the strategy should be based a higher investment on the online channel, more particularly an increase of the information available at the website. Furthermore, NAU Beer should clearly stimulate the sales through this channel to explore non-impulsive purchases. For that reason, the price established online should be lower than the price of the physical channels and delivery costs should be included in the price. Moreover, considering the increased willingness to buy online in case of larger orders, NAU Beer can also exploit this opportunity by creating quantity discounts on online sales. In addition, social networks should also be used to reach a higher number of consumers and promote online purchase.

Furthermore, the strategy should also be characterized by a growing effort towards the integration of all types of channels in order to increase the transparency and coherence of the brand, but also in order to have a closer relationship with the retailers, what can be crucial for future success.

## 6. Limitations and Future Research

This dissertation has faced some limitations. Concerning the survey distribution, as its target was all Portuguese individuals despite of their age, gender, education level, income range and residence, it would be more interesting to have a more diversified sample than the one collected. Furthermore, the lack of time limited the way of how to collect the data, which in an optimal scenario would include offline and not just online distribution. However, this survey ended up focusing only on internet users. An additional limitation recognized was the fact that the sample was not completely representative of the Portuguese population. On one hand, the majority of the sample was formed by younger people, mainly students, resulting also in lower levels of income. On other hand, individuals from Lisbon Metropolitan Area were in larger scale than respondents from the remaining NUTS II. Therefore, for future research it would be interesting to repeat this study with a larger and more diverse sample.

In addition due to the characteristics of the sample and the survey, the analysis was done using binary variables. For future analysis it would be significant to test the relationship between variables using continuous variables.

Furthermore, it would also be interesting to focus future research on the analysis of the effect of specific characteristics of the online channel on consumers' willingness to buy, in order to maximize the efficiency of this type of channel.

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## Appendix 1

### List of interviewed companies:

|                                 |                          |
|---------------------------------|--------------------------|
| Gourmet stores                  | Rosmaninho Arte e Aromas |
|                                 | Cantinho Gourmet         |
|                                 | Bacchus Spiritus         |
| Restaurants                     | O Magano                 |
|                                 | O Largo                  |
|                                 | Cantinho do Avillez      |
| Bars                            | Empório da Cerveja       |
|                                 | Topo                     |
|                                 | Vestigius Bar            |
| Portuguese craft beer companies | Cerveja Bolina           |
|                                 | Dois Corvos Cervejeira   |
|                                 | Cerveja d'Ourique        |

## Appendix 2

### Detailed analysis

#### Variables transformation:

##### **Age:**

```
dt.fdados3[,ageunder25:= ifelse(Age==1,1,0)]
```

##### **Education level:**

```
dt.fdados3[,Higheduc:= ifelse(Education==3 | Education==4 | Education==5 ,1,0)]
```

##### **Frequency of consumption of alcoholic beverages:**

```
dt.fdados3[,Frequentalcohol:= ifelse(Freq.alcohol==1 | Freq.alcohol==2 | Freq.alcohol==3 |  
Freq.alcohol==4 ,1,0)]
```

#### Models:

##### **Model 1**

```
model1<- BuyOnline ~ ageunder25 + Female+ Higheduc
```

```
ols<- lm(model1, data=dt.fdados3)
```

##### **Model 2**

```
model2<- BuyOnline ~ ageunder25 + Female+ Higheduc + Frequentalcohol
```

```
ols2<- lm(model2, data=dt.fdados3)
```

##### **Final Model (Model 3)**

```
model3<- BuyOnline ~ ageunder25 + Female+ Higheduc + Frequentalcohol + Onlinebuyer
```

```
ols3<- lm(model3, data=dt.fdados3)
```

#### Models' Statistics:

```
stargazer(ols, ols2, ols3,type="text")
```

|            | Dependent variable:  |                      |                     |
|------------|----------------------|----------------------|---------------------|
|            | -----                |                      |                     |
|            | BuyOnline            |                      |                     |
|            | (1)                  | (2)                  | (3)                 |
|            | -----                |                      |                     |
| ageunder25 | -0.119***<br>(0.044) | -0.116***<br>(0.044) | -0.105**<br>(0.042) |



|                 |                     |                     |                     |
|-----------------|---------------------|---------------------|---------------------|
| Female          | -0.015<br>(0.041)   | -0.002<br>(0.043)   | 0.025<br>(0.041)    |
| Higheduc        | 0.022<br>(0.058)    | 0.019<br>(0.058)    | -0.026<br>(0.056)   |
| Frequentalcohol |                     | 0.045<br>(0.043)    | 0.043<br>(0.041)    |
| Onlinebuyer     |                     |                     | 0.284***<br>(0.039) |
| Constant        | 0.735***<br>(0.062) | 0.701***<br>(0.070) | 0.589***<br>(0.068) |

---

|                     |                      |                      |                         |
|---------------------|----------------------|----------------------|-------------------------|
| Observations        | 545                  | 545                  | 545                     |
| R2                  | 0.014                | 0.016                | 0.104                   |
| Adjusted R2         | 0.009                | 0.009                | 0.096                   |
| Residual Std. Error | 0.471 (df = 541)     | 0.471 (df = 540)     | 0.449 (df = 539)        |
| F Statistic         | 2.616* (df = 3; 541) | 2.236* (df = 4; 540) | 12.548*** (df = 5; 539) |

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Logit Regression

### **Model**

```
logit <- glm (model3, data = dt.fdados3, family = binomial ( link = 'logit'))
```

```
stargazer (logit, type = 'text')
```

Dependent variable:

---

BuyOnline

---

|                 |                     |
|-----------------|---------------------|
| ageunder25      | -0.543**<br>(0.215) |
| Female          | 0.113<br>(0.206)    |
| Higheduc        | -0.119<br>(0.275)   |
| Frequentalcohol | 0.216<br>(0.204)    |
| Onlinebuyer     | 1.395***<br>(0.206) |
| Constant        | 0.424<br>(0.337)    |

```
-----
Observations      545
Log Likelihood    -317.933
Akaike Inf. Crit. 647.865
=====
```

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### Marginal Effects

logitmfx (logit, data = dt.fdados3, atmean = FALSE)

Marginal Effects:

|                 | dF/dx     | Std. Err. | z       | P> z         |
|-----------------|-----------|-----------|---------|--------------|
| ageunder25      | -0.106194 | 0.040417  | -2.6274 | 0.008603 **  |
| Female          | 0.022629  | 0.041132  | 0.5502  | 0.582202     |
| Higheduc        | -0.023448 | 0.053522  | -0.4381 | 0.661316     |
| Frequentalcohol | 0.043448  | 0.041250  | 1.0533  | 0.292207     |
| Onlinebuyer     | 0.284144  | 0.037897  | 7.4978  | 6.49e-14 *** |

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1