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Master's Thesis

Cand. Merc. Strategic Market Creation (SMC)

Drivers and Barriers Within the Purchase of OTC-medicines

A mixed-method study on Danish consumers' purchase of OTC-medicines, and the influence of brand awareness and consumer involvement

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Abstract

Consumers may once have been considered passive recipients of healthcare services, but they are now playing an active role in making their own healthcare decisions. As the paradigm have shifted from being physician- to patient-centered, consumers have gradually become health-conscious and as a result, the ways of making decisions might have changed too. This development suggests a need for exploring the drivers behind the consumers' purchase of OTC-medicines.

The thesis aims to study, through an explanatory sequential mixed method research, the key parameters driving Danish consumers' purchase of OTC-medicines. Specifically, the research examines important attributes in product choice and key drivers and barriers in the choice of distribution channel. Additionally, the thesis investigates how the level of consumer involvement and brand awareness influences the consumer in the purchase. An online survey was conducted in the first phase of the mixed method research, and the results were subsequently explored through 10 in-depth interviews.

The study suggests that the overall key drivers within the choice of distribution channel are Trust, Quality, Convenience, and Price, whereas the most significant barriers discovered include Location, Expensive Price, Lack of Guidance, and Trust. The findings indicate that older consumers are less-price sensitive, and that women tend to perceive higher importance in recommendations from close relationships, compared to men. The findings support previous research in the notion that brand awareness plays a significant role in the purchase of low-involvement products. Also, the findings indicate consumers tend to use brand awareness as a heuristic when purchasing OTC-medicines.

The findings propose that consumers generally consider OTC-medicines low-involvement products, however, related with a higher degree of psychological risk compared to regular low involvement products. Moreover, it is suggested that the level of involvement depends on the perceived risk experienced by the consumer. The findings reveal that the female interviewees tend to perceive a higher risk in the purchase of analgesics and cough and cold remedies, and consequently demonstrates a higher level of involvement than the male interviewees.

Table of Contents

Chapter 1 – Introduction **1**

1.1 Motivation, Purpose & Scope *2*

1.2 Problem Statement *3*

1.3 Delimitation *3*

1.4 Structure *4*

Chapter 2 –The Danish OTC Pharmaceutical Industry **5**

2.1 The Danish OTC-pharmaceutical Market *5*

2.1.1 Distribution channels 6

2.1.2 Liberalization of the Danish Pharma Industry 6

2.1.3 Pricing in the Danish Pharma Industry 7

2.1.4 Regulations within the Danish OTC-medicines market 8

Chapter 3 - Methodology **9**

2.1 Research strategy and design *9*

2.2 Epistemological & Ontological considerations *11*

2.3 Quantitative Approach *12*

2.4 Qualitative Approach *13*

Chapter 4 - Literature Review **15**

4.1 The Importance Consumer Behavior *15*

4.2 Attributes *15*

4.3 Consumer Decision Making Models *16*

4.3.1 The Nicosia Model 16

4.3.2 The Stimulus-Organism-Response (SOR) model 17

4.3.3 The Bettman information processing model (1979) 17

4.3.4 The EKB Consumer Decision-making Model 18

4.3.5 The Consumer Decision Journey 18

4.4 Consumer Involvement *20*

4.4.1 Types of Consumer Decisions 20

4.4.2 Factors influencing the level of consumer involvement 22

4.4.3 Measurements of Consumer involvement 23

4.5 Brand Awareness *24*

4.5.1 Evolution of the Brand Awareness Concept 25

Chapter 5 - Findings **28**

5.1 Quantitative Findings *28*

5.1.1 Preparation of the Data Set 28

5.1.2 Demographic Characteristics of Respondents 29

5.1.3 Analysis of Important Attributes 29

5.1.4 Choice of Distribution Channel 37

5.1.5 Measuring Brand Awareness 40

5.2 Qualitative Findings *47*

5.2.1 Approach of Analysis 47

5.2.2 Thematic Analysis 48
5.2.3 Measuring Consumer Involvement 56
5.2.4 The consumer journey within the purchase of OTC-medicines 58

Chapter 6 - Discussion 60

6.1 Discussion of the research questions 60
6.1.1 Part A 60
6.1.2 Part B 60
6.1.3 Part C 63
6.1.4 Part D 64

Chapter 7 – Conclusion 66

Chapter 8 – Limitations & Future Research 67

8.1 Limitations 67

8.2 Future Research 67

9 References 69

10 Appendices 77

Chapter 1 – Introduction

The world as we know it is constantly changing, and so are consumers and their ways of making decisions (Srivastava & Wagh, 2018). It is argued that consumers are becoming more demanding in terms of wanting to be properly informed and aware about what they put into their body, which arises from the growing concern about health, wellness and quality of life (PwC, 2017). Additionally, it is argued that consumers are becoming more health-conscious as a result of a shift from the physician-centered to patient-centered paradigm (Glowik & Smyczek, 2015). More specifically, where consumers were once considered passive recipients of healthcare services, they are now playing a more active role and feel more confident in making their own healthcare decisions and managing their own health (Anderson & Funnel, 2005). As consumers increasingly want to be in control of their own health, the researcher speculates that there will be an increase in the demand for over-the-counter (OTC) medicines, also known as medicines that are available for the general consumer to purchase without a prescription (Danish Medicines Agency, 2019).

It is argued that health is one of the most important values in life, and essentially *"the basis of a person's existence"* (Glowik & Smyczek, 2015, p. 75). However, it is not possible to purchase a certain desired state of health – on the other hand, it is possible to acquire *"(...) services and products that can improve or maintain one's current health condition"* (ibid, p. 76). By taking advantage of the possibility of gaining access to information it is suggested that *"(...) the empowered consumer knows more, wants more and is able to do more for themselves."* (PwC, 2017).

Furthermore, the liberalization of the Danish pharmacy monopoly in 2001, has improved consumers' access to OTC-medicines (Statens Serum Institut, SSI, 2013). Consequently, the researcher speculates that this places an expectation on the general consumer to be able to distinguish between the products available and their use purpose. In general, there have been a lot of changes in the danish regulations for sales and marketing of OTC medicine during the past decade (SSI, 2013). Liberalization of OTC-medicines has made it possible for the general consumer to purchase pain killers in the supermarket and other smaller retailers, whereas before it was only available at the pharmacy (ibid). It has been argued that the intention of the liberalization of OTC-medicines was to increase the competition and press down market prices and make the available possibilities more transparent for the end consumer (Håkonsen, Sundell, Martinsson & Hedenrud 2016).

The society and public health initiatives are constantly trying to remind and encourage consumers to adopt healthier lifestyles, which influences consumers to spend more time and money on preventive health products, while at the same time reducing the burden on the healthcare system (Glowik & Smyczek, 2015; WHO, 2019). In general, it is suggested that consumers are becoming more educated about the causes of common lifestyle

diseases, but the question is whether or in what ways this has changed the way consumers select and buy OTC-medicines (Glowik & Smyczek, 2015).

1.1 Motivation, Purpose & Scope

It is reasonable to say that almost everyone has taken, are taking, or is going to take some kind of OTC-medicine during the course of their life (ibid). Although some people may feel confident about their knowledge within the subject, studies have shown that many are unaware of the risks associated with the long-term use of OTC-medicines, as well as combination with other agents (Håkonsen et al., 2016). The development of OTC-medicines from being only available exclusively in pharmacies, to becoming accessible at various other distribution channels therefore suggest a requirement for exploring where the products lie in the involvement continuum.

The researcher aims to study the consumer involvement and brand awareness within OTC-medicines, as these are considered important components in understanding the consumer behavior journey within the selection of OTC-medicines (Holdford, 2015; Keller, 2013). It is essential for pharmaceutical companies to understand the behavior of their consumers, in order to achieve commercial success with their products (Holdford, 2015). This is relevant, as a fundamental understanding and knowledge about how the consumers evaluate and make decisions about their purchase will reflect on how well a company's marketing strategy fits the market demand (Keller, 2013). Yet, a strong brand is recognized as one of the most valuable assets of a company and is essential in establishing competitive advantage (Keller, 2013). Hence, the purpose of this thesis is to investigate the key parameters driving Danish consumers' selection of OTC-medicine. The theoretical scope focuses on studying the consumer's purchase of OTC-medicines through the decision-making journey, in order to identify relevant product attributes and distribution channels, as well as test if demographic factors have a significant influence. The thesis will analyze the levels of consumer involvement and brand awareness, and how these factors might influenc the decision-making process.

Existing research on the subject of consumer behavior and the selection of OTC-medicines are generally limited, and mostly based on quantitative empirical data (Dadhich & Dixit, 2017, Pujari, Sachan, Kumari & Dubey, 2017, Boström, 2011). Moreover, existing studies are found to be mostly country-specific to other countries than Denmark (Srivitava & Wagh, 2018; Pujari, Sachan, Kumari & Dubey, 2017; Babu, 2017), whereas this thesis should be regarded as contributing research within the Danish OTC-medicines industry.

1.2 Problem Statement

The thesis aims to study the key parameters driving Danish consumers' purchase of OTC-medicines. In order to address this, the following research questions are formulated:

1) Which product attributes are considered the most important for the consumer, when purchasing OTC-medicines? And are these attributes dependent on the demographics of the consumer?
2) What is the level of brand awareness within the categories of analgesics and cough and cold remedies?
3) What are the motivations behind the consumer's choice of distribution channel?
4) How is the perceived level of involvement within the purchase of analgesics and cough and cold remedies?

1.3 Delimitation

Many interesting perspectives could be covered in the crossfield of consumer behavior and the pharmaceutical industry. However, in order to make the thesis as concrete and relevant for the contribution of insights to existing literature, several delimitations have been made.

Firstly, the thesis only focuses on OTC-medicines, which has been chosen due to the availability of the products and the fact that it is legal to advertise directly towards the end-consumer (Retsinformation, 2018). More specifically, the categories "analgesics" (37.3%) and "cough and cold remedies" (35.4%) are selected, as these two categories alone account for 72.8% (based on revenue incl. VAT) of the OTC-medicines market in Denmark (Statista – Datasheet, 2019). Hence, the researcher suggest that the two specific segments are the most relevant to investigate. Consequently, this delimitation excludes the inclusion any type of prescription (Rx) medicines or veterinary medicines. From this point and forward, OTC-medicines refers to cough and cold remedies and analgesics, unless anything else is stated.

Secondly, the emphasis will be put on analyzing the attributes and motivations within the consumer behavior and decision-making process of the general consumer. The thesis will only take the consumer perspective, and not include the perspectives of manufacturers or retailers. Thirdly, the analysis is based on empirical research conducted in Denmark exclusively. Moreover, the thesis will not take point of departure in a specific company or brand as case example, but rather consider and investigate the dynamics of consumer behavior within the OTC-medicines market in general.

1.4 Structure

The thesis consists of eight chapters divided into two parts: a theoretical part, which is then followed by an empirical part. **The first** and **second chapter** provides an introduction to the overall topic of the thesis, as well as an overview of the Danish OTC-medicines market. Additionally, the research objective and problem statement are presented in the first chapter.

The third chapter specifies the methodology applied, including epistemological and ontological considerations, research design and data collection techniques. **Chapter four** consist of a literature review, which presents the theoretical toolbox required to sufficiently examine the research questions initially presented in chapter one, section 1.2. More specifically, this chapter will outline existing consumer behavior literature and the development within consumer decision making. Moreover, selected literature within consumer involvement and brand awareness will be presented.

Chapter five consist of a presentation and analysis of the empirical findings from the quantitative as well as qualitative data collection. Subsequently, **chapter six** will provide a discussion of the findings presented in chapter five, in relation to the literature review presentenced in chapter four. The conclusion of the thesis and problem statement is presented in **chapter seven**, which will be followed by an overview of limitations within the study and suggestions for future research in **chapter eight**. Lastly, **chapter nine** and **ten** presents the reference list and appendices.

Chapter 2 –The Danish OTC Pharmaceutical Industry

This chapter will present a brief overview of the Danish OTC-pharmaceutical industry, including general numbers and facts about the industry and the distribution/trade channels. An explanation of the concept of liberalizing OTC-medicines will be provided, followed by an overview of the pricing and advertising dynamics of the Danish OTC-medicines market.

2.1 The Danish OTC-pharmaceutical Market

The total Danish OTC-pharmaceutical market has experienced a steady increase during the past decade and reached a total revenue (RSV) of 158 million EUR (incl. VAT) in 2019 (Statista – Datasheet, 2019). Moreover, the total compound annual growth rate (CAGR) of the market is expected to be 3.8% in 2021 (ibid). For a historic overview of the RSV and CAGR, see appendix 1 and 2. The OTC-market is highly competitive and consist of numerous major players. The top 3 leading companies on the Danish OTC-medicines market are GSK Consumer Healthcare (17.5%), Orkla Care A/S (11.6%), and McNeil Pharma ApS (8.4%), who all have wide portfolios of strong OTC-medicine brands and account for 37.5% of the total market. (Passport, 2020)

Most of the OTC-medicine available on the market is characterized as generic medicine, which means that cannot gain competitive advantage through product innovation like originally branded medicine (Danish Medicines Agency, 2013). Hence, the competition is primarily based on pricing and product branding. An example is how Orifarm, one of the largest suppliers of parallel imported pharmaceuticals in Europe, tried to gain a larger market share within the Danish OTC-market by introducing the concept of "Do you yellow?" (Orifarm, n.d.). With this advertising headline, the company wanted to establish a mother brand across product lines, so that the consumer with associate the yellow packages with good value for money. The concept was a success, resulting in an advertising recall 4.5 times higher than competitors and a general higher top-of-mind brand awareness (Søndergaard & Hansen, n.d.).

The sale of medicine is regulated by the Danish Medicines Agency, who has developed regulations for the dispensing of medicine for the following three types of medicines (SSI, 2013). 1) Prescription medicine, which is medicine that may be sold, if a doctor has made a prescription for the specific medicine to the specific consumer (ibid). 2) Pharmacy-only OTC-medicine, which is medicine that may be sold without a prescription, but only at pharmacies (ibid). 3) Regular OTC-medicine (liberalized – explained further later), which is medicine that may be sold without a prescription, by every other retailer than the pharmacies, and who has obtained an authorization from the Danish Medicines Agency(ibid).

The Danish pharmacies account for 70% of the total sales of OTC-medicines (SSI, 2013). Of these, two-thirds are the regular OTC-medicine (liberalized) and one-third is pharmacy-only OTC-medicine. (Danmarks

Apotekerforening: Rapport - Lægemidler I Danmark 2018-2019). The OTC-medicine market in Denmark is highly regulated. As example, it is the Danish Health Authority that decides where pharmacies should be located, and it is a requirement that the owner of a pharmacy must have obtained a master's degree in pharmacy (Apotekerforeningen, 2019).

2.1.1 Distribution channels

Distribution of medicines on the Danish pharmaceutical market can be divided into the primary and secondary sector (SSI, 2013). The primary sector includes the pharmacies, online pharmacies, and retailers outside of the pharmacies, whereas the public sector includes the hospital sector (ibid). In both sectors, there are three distribution channels, which includes suppliers, wholesalers, and retailers (ibid).

Within the primary sector, an example of a supplier is Novo Nordisk, the biggest Danish pharma company, who develops and manufactures medicine mainly within the treatment of diabetes, haemophilia, obesity and NASH (Novo Nordisk, 2020). Companies who parallel imports medicines, such as Orifarm, are also characterized as suppliers. Wholesalers can be 'pre-wholesalers', who handle stock and distribution for suppliers, 'traditional wholesalers', who resell medicines from suppliers, and pure distributers (Danish Competition and Consumer Authority, 2016). Nomeco and Tjellesen Max Jenne account for 99 percent of the distribution of medicines in Denmark, whereas the remaining share is distributed by PharmaService (ibid).

The pharmacies can choose independently which distributor they want to use, as long as it is able to offer the full range of approved medicine to consumers (ibid). As the pharmacies has to follow this Danish legislation, most of the pharmacies choose to use either Nomeco or Tjellesen as their primary wholesaler, where they buy almost all of their medicine (ibid). According to the latest reports, Nomeco is the primary wholesaler for two thirds of the pharmacies, and Tjellesen then takes up the remaining one third of the Danish pharmacies (ibid). The main payer of OTC-medicines in the primary sector is the consumers. A reimbursement system financed by the region exist, however, it is primarily aimed at prescription medicine (ibid). The public sector is administered by the five Danish regions and financed by the state. Amgros is the only wholesaler distributing medicine to the hospitals (ibid). Moreover, they are in charge of negotiating prices and purchasing medicine for the hospitals in the regions, which is done at a yearly basis, in contrast to the primary sector, where prices change every 14th day. (ISPOR, 2015)

2.1.2 Liberalization of the Danish Pharma Industry

Up until 2001, the pharmacies had monopoly on the sale of medicine in Denmark. However, a number of drugs were liberalized in 2001, which meant that retailers outside of the pharmacies were able to apply for authorization to sell selected OTC-medicines. In the beginning, the range of liberalized OTC-medicine

included anti-smoking agents, cough and cold medicines and nasal remedies. However, the range has gradually been extended to include antihistamines for the treatment of allergy and creams for certain skin conditions, just to mention a few. (SSI, 2013)

New regulations on OTC-medicine became effective on the 1st of January 2018, introducing self-selection of certain OTC-medicines, which means that these OTC-medicines may be placed on regular shelves in the retail stores and not only behind the counters (Danish Medicines Agency, 2017). However, in order to do so, several regulations have to be followed, which is further elaborated in the section 2.1.4 Regulations within the Danish OTC-medicines market. The purpose with introducing a so-called self-selection of certain OTC-medicines, was argued primarily to support consumer's access to medicines, and give the consumer a greater possibility to make their own assessment on which medicines they want to purchase (ibid).

2.1.3 Pricing in the Danish Pharma Industry

According to the Danish legislation, prescription medicine and pharmacy only OTC-medicine must be priced equally in all pharmacies in Denmark (Danish Competition and Consumer Authority, 2016). Moreover, the price is determined every 14th day directly by the pharmaceutical companies who manufacture or import the medicine (ibid). More specifically, each company has to report price changes to the Danish Medicines Agency through DKMAnet, which is a system that ensures the companies cannot see the prices of their competitors (ibid). After the price changes has been reported, the Danish Medicines Agency publishes the prices on www.medicinpriser.dk and the medicine with the lowest price gets to be offered by the pharmacists during the next 14-day period, as the Danish legislation requires pharmacists to offer the consumer the lowest priced medicine (ibid). The system has been structured with the purpose to increase competition and thereby assure low medicine prices for consumers in Denmark. (Danish Medicines Agency, 2019)

However, the prices on liberalized OTC-medicine, which can be sold at other retailers e.g. supermarkets and smaller shops, may differentiate as the retail stores have the ability to set the prices themselves. Hence, depending on the specific OTC-medicine, the prices may either be the same at all pharmacies or the prices may change from store to store. (Danish Medicines Agency, 2019)

Danmark is one of the countries in the world with the lowest priced OTC-medicine (Danish Competition and Consumer Authority, 2016). This is not only due to the intense competition on the market, but also because of the 14-day price adjustments and the pharmacies' substitution system, which proposes that consumers should always be offered the lowest priced brand. This is also what is referred to as generic medicine, which is "medicinal products containing the same active substances [as the original branded medicine]" (Danish Medicines Agency, 2013). The generic medicine may be cheaper; however, it must live up to the same

standards as the original medicine. Moreover, it is important to note that original branded medicine is usually protected by patents, and it is only when these patents expire, and the original branded medicine loses exclusivity that generic medicine can be approved and made available for consumers (FDA, 2018).

2.1.4 Regulations within the Danish OTC-medicines market

Pharmaceutical companies have to follow strict regulations throughout the whole value chain, which also includes the area of advertising and general commercialization of drugs (Retsinformation, 2019). The regulations include factors such as placement of products in the store, and it must be placed separately from other products in a way where the consumer is not in doubt that it is in fact medicines (ibid). Moreover, a specific height dimension has to be followed, which is made to ensure that children should not be able to reach the products (ibid). Additionally, the OTC-medicines should be supervised by staff (ibid).

With the liberalization of OTC-medicines, pharmacies and other retailers have to be comply to several regulations. the OTC-medicines must be supervised by the staff. Moreover, it should be placed on shelves more than 140 centimeters from the floor, preventing small children to be able to reach the medicine. The OTC-medicines must be placed separately from other products and it should be clearly pointed out for the consumer, that it in fact is medicines displayed on the shelves. Furthermore, it is the Danish Medicines Agency exclusively who has the authority to decide which OTC-medicines that can be placed on the regular shelves (Retsinformation, 2019).

Chapter 3 - Methodology

The following chapter includes the methodological considerations of the thesis. The research design and strategy, as well as epistemological and ontological concerns will be discussed. Moreover, reflections regarding data collection and quality in the quantitative and qualitative approach will be reviewed.

Primary and secondary data

A range of both primary and secondary data is used throughout the research process of this thesis. The collection of own empirical, primary, data was done through an online survey as well as in-depth interviews using Skype as the communication channel, which was a result of the changed circumstances that had to be made due to CBS's communication regarding master thesis and lockdown under covid-19 (see appendix 3). The data collection, sampling methods, and quality of the two methods will be elaborated in the following paragraphs. Additional material and data about the OTC-medicine market in Denmark, relevant theories and concepts, are acquired from various sources including public statistical databases, websites of Danish healthcare authorities, scientific articles, and literature on the industry.

2.1 Research strategy and design

In order to sufficiently answer the research questions, an explanatory sequential mixed method is applied in this thesis. The explanatory sequential design is characterized as a research design consisting of two phases (Creswell & Plano Clark, 2007). It initiates with a quantitative approach, subsequently followed by a qualitative approach (ibid). Explanatory studies are typically employed with the intention of using the qualitative phase of a study to explain or elaborate on the preceding quantitative phase (ibid). Hence, the qualitative phase builds on the quantitative phase, and the two are connected in the transitional part of the study, and in the interpretation. (Ivankova, N. V., Creswell, J. W., & Stick, S. L., 2006)

Although the priority of an explanatory sequential design would usually be given on the first method in the sequence, the quantitative method, it is decided in this thesis that the higher priority is weighted on the last sequence, where we find the qualitative method (Creswell & Plano Clark, 2007). The priority decision is highly affected by the purpose of identifying factors that influences consumers in the purchase of OTC-medicine, as well as investigating the impact of consumer involvmement and brand awareness. This type of explanatory design, which weighs of priority in the qualitative phase, is referred to as the participant selection model (ibid). Essentially, this model is selected when the researcher needs a basis of quantitative data to identify and select participants for an elaborating, in-depth, qualitative research (Creswell & Plano Clark, 2007). For this thesis, the interviewees were selected from the sample of respondents who participated in the survey and acknowledged that they would like to participate in an in-depth interview revolving around the same topic as

the survey they had just completed. The criteria used for the selection was based on securing demographic diversity among the interviewees, as the quantitative findings suggested that the perceived importance of the distinct attributes might be dependent on gender and age differences. However, it was not possible to obtain a 50/50 distribution among the interviewees, as the not all of the contacted male respondents replied to the mails sent out regarding the interview. The analysis of the quantitative data employed three statistical techniques including descriptive statistics, Cronbach's Alpha, and Chi-square Test of Independence.

Cronbach's Alpha

Malhotra (2006) states that reliability refers to the extent a scale will give the same results if the measurement is repeated. Additionally, the internal reliability refers to the inter-item correlations, which more specifically indicates if all items in a scale are consistent in what they are measuring. One of the most widely used measures of internal reliability is Cronbach's alpha, which essentially calculates the average of all possible split-half coefficients (Malhotra, 2006). The calculated coefficient can differ 0 and 1, and as Bryman (2012) states, the closer the coefficient is to 1, the higher the internal reliability. Malhotra (2006) argue that the value of the alpha coefficient should be higher than .6 in order to be satisfactory. However, the value of the alpha coefficient tends to increase with the number of scale items, which is important to keep in mind when conducting the test (Malhotra, 2006). Pallant (2013) argues that it would be more difficult to compute a high value if there are fewer than 10 items in one scale and suggests that it would be optimal for scales with fewer than 10 items to have a Cronbach alpha ranging from .2 to .4.

Chi-square Test of Independence

According to Bryman (2012), a chi-square test can be used to measure how confident we can be that a relationship exists between two variables. Additionally, the author adds that the chi-square value is useless if the associated level of statistical significance is not taken into account (Bryman, 2012). The level of significance is typically set before conducting a chi-square test, in order to indicate the probability of making an error, as Bryman (2012) states that there will always be a risk that incorrect conclusions can be drawn.

Combining quantitative and qualitative data

While relevant insights about preferred attributes, distribution channels, and levels of brand awareness, within analgesics and cough and cold medicines, was discovered in the quantitative data collection, the research lacked an elaboration of the motivations behind the attributes considered most important for the consumer, choice of distribution channel, and level of consumer involvement. This data was possible to attain by the following qualitative phase, where in-depth Skype interviews, drawing on the quantitative phase, were conducted.

One of the important building blocks of the explanatory mixed methods is the stage(s) where "the mixing or integration of the quantitative and qualitative methods occurs". (Ivankova et al., 2006, p. 11) Integration of the two different methods are seen at several points in this study. Firstly, the research questions are directed towards either quantitative or qualitative data collection and analysis. Secondly, the people interviewed in the second, qualitative phase, were selected respondents from the quantitative online survey, who indicated that they wanted to participate in an in-depth Skype interview centered around the topic of OTC-medicine. Thirdly, findings from the quantitative phase of the mixed method research design were verified in the qualitative phase and compared in the discussion, thus, conducting a triangulation of the data (Bryman, 2012).

2.2 Epistemological & Ontological considerations

As this thesis employs a mixed method research design, the philosophical principles in both methods are combined, which applies to the epistemological as well as ontological considerations. Epistemology deals with *"(...) the question of what is (or should be) regarded as acceptable knowledge in a discipline."* (ibid, p. 27). Within epistemology, positivism and interpretivism are considered some of the most well-known perspectives. The positivistic approach argues that *"(...) reality exist external to the researcher and must be investigated through the rigorous process of scientific inquiry."* (Grey, 2014, p. 56).

On the contrary, the interpretivist approach claims that *"(...) the subject matter of the social sciences —people and their institutions—is fundamentally different from that of the natural sciences."* (Bryman, 2012, p. 28) Hence, the interpretivist perspective stresses that the social world needs to be studied with a different logic that, most importantly, displays the uniqueness of each individual and attempts to grasp the subjective meaning of social interaction. (ibid)

Ontology, on the other hand, deals with *"(...) the study of being, that is, the nature of existence and what constitutes reality"*. (Grey, 2014, p. 55) The most well-known perspectives are referred to as objectivism and constructivism. While objectivism is characterized as *"(...) an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors"* (Bryman, 2012, p. 33), constructivism takes the opposite stance, and suggests that *"(...) social phenomena and their meanings are continually being accomplished by social actors."*. (ibid, p. 33)

In the first, quantitative, phase the world is considered measurable, as hypotheses are tested in a deductive research process. Hence, the positivistic perspective is emphasized, as it is believed that the findings from the online survey reflect acceptable knowledge. Moreover, the data analysis of the survey results focuses on studying people's attitudes, preferences and buying behavior objectively, which emphasizes the objectivistic approach (Grey, 2014). The second, qualitative, phase emphasized an interpretivist perspective, as the purpose

with conducting the in-depth interviews is to explore and interpret the respondents' subjective meaning and understanding of the factors that influences their purchase of OTC-medicine, which in this case is considered acceptable knowledge. Mojtahed, Nunes, Martins & Peng (2014) defines the constructivist approach as *"based on understanding the world of human experiences"* (p. 87). Hence, the respondents' own experiences, thoughts and beliefs regarding OTC-medicine defines what exist in the social world.

The two methods are very different, especially in terms of their epistemological and ontological considerations and perspectives. However, combining the methods presents an opportunity to draw on the strengths while dissolving the weaknesses, which is what Bryman (2012) refers to as 'offset'. Moreover, it is argued that the triangulation of findings has the benefit of mutually verifying the methods, which also increases the validity of the research (Bryman, 2012).

2.3 Quantitative Approach

For the quantitative data collection an online survey was prepared. The purpose of the survey was to study the product attributes considered the most important in the consumers' purchase of OTC-medicines, the preferred distribution channels, and levels of brand awareness. Prior to the development of questions for the survey, secondary sources where explored to help identify measurement variables.

The survey was distributed through several Facebook groups as well as the researcher's private account in order to get as widespread a sample as possible. The respondents were ensured anonymity in the introduction of the survey, as Malhotra (2006) suggest that by doing this, respondents are likely to state their opinions freely. A total of 129 respondents completed the survey, which was available for 2 weeks, with no form of compensation given as incentive for the respondents to answer. The online survey consisted of a combination of open and closed questions, enabling the respondent to answer freely, or on a 5-point Likert scale. The idea of using a Likert scale is primarily to measure the respondents' intensity of feelings about a certain subject (Bryman, 2012). Also, it is argued that a 5-point scale is preferred compared to e.g. a 4-point scale, as this allows the respondent to give a neutral response (ibid). Different Likert scales were used, including scales measuring the degree of importance and agreement. The purpose with the open-ended questions in Q5 and Q6, was to study the unaided brand awareness with OTC-medicines in Denmark. They are connected with Q7, which studies the aided brand awareness.

Research criteria and quality

The population counts as all consumers who have bought any type of OTC-medicine during the last 12 months. Three respondents were screened out in Q1, as they did not meet this requirement, which is fundamental in order to be able to answer the questions in the survey sufficiently. The non-probability sampling method,

convenience sampling, was used (Bryman, 2012). It is argued that this sampling method is used, when data is collected on the account of what is accessible (ibid). The convenience sampling is an optimal method to employ when the researcher has limited time and resources (ibid). However, it weakens the external validity of the survey, which is *"(...) concerned with the question of whether the results of a study can be generalized beyond the specific research context".* (Bryman, 2012, p. 47) The sample size has an effect on the external validity as well, since a higher sample size is suggested to lead to a stronger external validity (ibid). Based on the data analysis, a sample size of 126 respondents is not considered generalizable. Internal validity was ensured by minimizing the number of confounding variables, as well as making sure that the survey questions were revised by others through pilot testing (ibid). Cronbach's Alpha was applied to test the internal reliability of the online survey, that is, to test if the items were inter-correlated (ibid). Additionally, the external reliability of the survey is argued to be high, due to the nature of the survey as research design, which is more replicable than e.g. an interview or focus group (ibid).

2.4 Qualitative Approach

The qualitative data collection consisted of 10 in-depth interviews conducted through Skype. An overview of the interviewees and their gender, age, and occupation is illustrated in Appendix 4, Table 1. Although computer-assisted telephone interviews (CATI) is widely used in quantitative research, it is generally not seen as much as face-to-face interviews in qualitative research literature (ibid). Novick (2008) argues that *"The absence of visual cues via telephone is thought to result in loss of contextual and nonverbal data and to compromise rapport, probing, and interpretation of responses."* (p. 391) Hence, there can be a lot of biases and complications when conducting interviews over the phone or via Skype, such as problems with the connection, lack of body language and facial expressions. All of these implications influence the way people communicate and it may involve difficulty identifying if a question is misunderstood. Hence, face-to-face interviews are definitely preferred, but in the light of CBS's communication regarding master thesis and lockdown during covid-19, it was not possible to conduct such interviews. However, there are some benefits of conducting interviews trough Skype/by telephone (Bryman, 2012). The person interviewed may feel more relaxed and willing to reveal sensitive information (ibid). Moreover, it is argued that telephone interviews have the benefit of being slightly more time-saving and convenient, as the interviewer and person interviewed do not have to book a room and meet up at a selected location (ibid). Instead, the interview is conducted online.

Research criteria and quality

The people who participated in the in-depth interviews, were selected based on the group of respondents who indicated in the survey that they were willing to be interviewed. Hence, the purposive sampling method, generic purposive sampling, was employed, indicating that the participants were sampled based on their relevance to the research (Bryman, 2012). Bryman (2012) argues that the researcher is not able to generalize

the data of this sampling approach, as the data is not collected randomly (ibid). However, the author continuous by emphasized that generalizing data to the population is not the goal of qualitative research (ibid). Eisenhardt (1989) suggest that the generalizability is not crucial, but rather the richness of the data, which does not necessarily increase by the number of interviews conducted.

The interviews had a semi-structured form, which essentially allows for open, yet guided discussions around the topics that are considered relevant for the research. An interview guide was used during all interviews, in order to keep the same structure and be sure to cover the same relevant topics. The interview guide is attached in Appendix 5. All interviews were recorded and transcribed, making it more convenient for the researcher to do the following analysis. Moreover, the interviews were held in Danish, as the interviewees stated that they were more comfortable with this, rather than speaking English. The quotations highlighted and used as examples in the analysis was translated afterwards. The researcher primarily employed the thematic analysis as approach of analyzing the qualitative in-depth interviews of this thesis due to its flexibility and simple structure. Moreover, it was a method the researcher had experience with conducting beforehand. Braun & Clarke (2006) characterizes the thematic analysis as a method of firstly identifying, then analyzing and reporting themes or patterns within the collected data. An elaboration of what a thematic analysis contains will be presented in Chapter 5, section 5.2.1 Approach of Analysis.

According to Bryman (2012), several researchers argue that the quality of qualitative research should be evaluated with different research criteria than those used for quantitative research. An alternative criterion for evaluating qualitative research was suggested by Lincoln and Guba (1994), which is trustworthiness. To ensure high quality in the qualitative data collection, four specific criteria of trustworthiness were taken into consideration: transferability, confirmability, dependability and credibility. In order to increase the credibility of the study, the interview guide was formulated by drawing from existing literature about the topic. Regarding the conformability criteria, it would have been optimal to have different perspectives on the data analysis, in order to reduce the bias of personal interpretation, which is difficult to avoid when only one person is conducting the study and doing the data analysis as well, even when the researcher is trying to remain objective. To address the dependability criteria, all interviews have been through the process of recording, transcribing and coding. Lastly, to have the highest possible degree of transferability, which is referred to as external validity in quantitative studies, an account of the experiences during the data collection was noted, including recordings and transcriptions.

Chapter 4 - Literature Review

As Bryman (2012) argue "the existing literature represents an important element in all research" (p. 8). Hence, this chapter aim to present the theoretical toolbox needed in order to sufficiently answer the research questions. Initially**,** the importance of consumer behavior will be explained, followed by an explanation of the concept of attributes. Moreover, a review of the evolution of the consumer decision making models and its components will be presented. The chapter continues with clarifications on the concepts of consumer involvement and brand awareness.

4.1 The Importance Consumer Behavior

Consumers make a lot of decisions every day and it is essential for companies to understand how and these decisions are made, in order to create products and services that can satisfy the needs of the consumer (Keller, 2013). Solomon (2013) defines consumer behavior as "(…) the study of the processes involved when individuals or groups select, purchase, use or dispose of products, services, ideas or experiences to satisfy needs and desires." (p. 5) Moreover, the study of consumer behavior is multifaceted, as its theories draws on approaches from different fields including psychology, sociology, anthropology, economics, and neuroscience (Sethna & Blythe, 2019). A lot of theoretical frameworks exist to explain why consumers act the way they do, however, it would be impossible to cover it all, not only in regard to lack of space but also due to the relevance for the research objective of this thesis (Solomon, 2013). Thus, only a selection of what the researcher speculates as relevant for the reader, is presented in the following section.

The traditional models of consumer behavior theories assume that the consumer is rational, logically thinking, and fundamentally active, meaning that the consumer will always actively use all information available to evaluate and make informed decisions (e.g. Engel, Kollat, and Blackwell 1968; Howard and Sheth 1969; Bettman 1979). Although these theories might be useful in explaining some buying behavior processes, several researchers today argue that these models are a simplified version of reality, as it has been discovered that we as human beings are not as rational as we would like to think (Ariely 2010; Kahneman 2011; Solomon 2013).

4.2 Attributes

According to Kardes, Cronley & Cline (2014), products and services can be characterized by their attributes. Moreover, they argue that attributes can be either tangible or intangible. Hirschman (1980) states that a tangible attribute "(…) is one which arises directly from the product and may be detected by the individual through one or more of the five senses. Hence, product attributes which may be seen, touched, heard, tasted or smelled are tangible attributes." (p. 9). Kardes et al. (2014) suggest that tangible attributes are easily measured, such as fuel economy in a car.

Intangible attributes on the other hand, are characterized by Hirschman (1980) as existing only "(…) within the mind of the individual and are mentally rather than physically associated with the product. They are not corporeal or palpable; yet they may be used by consumers to comprehend and classify the product." (p. 9). More specifically, intangible attributes are suggested to have a more subjective nature and be determined by consumers who observes or experiences the product or service (ibid). Hence, intangible attributes may include the brand of a product and the customer service provided (Solomon, Bamossy, Askegaard & Hogg, 2006). Additionally, Kardes et al. (2014) proposes that intangible attributes, such as consumers' attitude towards a product's quality and comfort, can be measured e.g. through Likert scales in a survey, asking the consumer to rate the product quality from a scale from 1-5.

Hirschman (1980) argue that the fundamental difference between tangible and intangible attributes lies in the question of where the attribute arises from. Where the tangible attributes arise directly from the physical product detected by the senses, the intangible attributes may not be physically present, but exist a result of consumers' subjective observations and experiences (ibid). Additionally, the author proposes that intangible attributes often result from socialization processes such as family and friends, as well as social institutions e.g. the mass media.

4.3 Consumer Decision Making Models

The following section will discuss selected models within consumer decision making, with the purpose of presenting the evolution of different scholars' perspectives and contributions on the concept.

4.3.1 The Nicosia Model

One of the earliest models within consumer decision making is the **Nicosia model (1966)**, which focuses on the marketer's perspective, defining consumer activities in broad terms. Moreover, Prasad & Jha (2014) argue that the model presents a framework of the relationship between a firm has with its potential customers. More specifically, four different fields in the model illustrates how the firm communicates a message to the consumers, which is then evaluated and compared to other brands, before a decision is made. Additionally, the model considers how both the firm receives feedback in form of sales data and the consumer, in form of experiences that may influence future purchase decisions (ibid). However, a limitation of the model is that the Nicosia model does not mention internal factors which might influence the decision making, such as personality, lifestyle, motivation and involvement (ibid).

4.3.2 The Stimulus-Organism-Response (SOR) model

Another theoretical model of consumer behavior, which derives from the domain of environmental psychology and cognitivism, is known as the **Stimulus-Organism-Response (SOR) model (1974)**. The model developed by Mehrabian and Russell (1974) suggest that consumer behavior is a result of the consumer's emotional response to the environment. Chang, Eckman & Yan (2011) states that 'stimulus' is characterized as factors that influences internal states of the individual. Additionally, Bagozzi (1986) posits that stimuli are external to the individual and involves marketing mix stimuli as well as other environmental inputs, including economic, technological, social, and cultural stimuli.

Chang et al. (2011) continuous by stating that the 'organism' represents the *"(...) internal processes and structures intervening between stimuli external to the person and the final actions, reactions, or responses emitted"* (p. 235). Moreover, several scholars have suggested that the consumer's internal processes may be described as the "black box" (Engel et al., 1968; Jacoby, 2002; Kotler & Armstrong, 2016). It is argued that the 'black box' consist of two parts; the buyer's characteristics, which affects how the stimuli are perceived, and the decision-making process itself, influencing the behavior outcome (Kotler & Armstrong, 2016). Finally, the 'response' refers to the outcome or decision made by the consumer, which are proposed to be either approach or avoidance behaviors (Mehrabian and Russell, 1974). Although the model is widely accepted and employed in consumer behavior studies (Arora, 1982; Buckley, 1991; Donovan & Rossiter, 1994; Wakefield & Blodgett, 1996), it has been criticized for assuming that the consumer is rational and active in all parts of the decision making, as several other traditional consumer decision making models have been criticized for as well (Solomon et al., 2006).

4.3.3 The Bettman information processing model (1979)

The **Bettman information processing model (1979)** provides an analytical framework for understanding consumer behavior, which is argues that consumers have limited capacity for processing information (Prasad & Jha, 2014). Lilien & Kotler (1983) argue that model focuses on the information processing perspective and, more specifically, the process of selecting between alternatives by taking into account what type of information is collected, how the consumer evaluates this information and finally, how the decisions are made in the end. Moreover, the authors state that the model comprises of two sub models, including 'the basic hierarchy' and the 'intermediate process' (ibid). Although the model is claimed to offer valuable insights to factors influencing the way consumers make decisions based on information processing, it is argued that the limitations of the model include the fact that the model is directly operational and does not quantitative support for marketing decisions (ibid).

4.3.4 The EKB Consumer Decision-making Model

Additionally, one of the core theories of consumer behavior is known as the **EKB consumer decision-making model**, originally developed by Engel, Kollat, and Blackwell (1968). It was later revised and known as the Consumer Decision Process (Blackwell, Miniard & Engel, 1986). The CDP model developed by Blackwell et al. (2001) is an example of a classic information processing model, which proposes that consumers go through a sequential process when making decisions, which consist of the following: 1) need recognition, 2) information search – both internally and externally, 3) pre-purchase evaluation of alternatives, 4) purchase, 5) post-purchase evaluation/reflection, and 6) divestment. It is proposed that a decision-making scenario is influenced by two key factors; memories of previous experiences and external variables, in terms of either environmental influences or individual differences (Blackwell et al., 2001). The environmental influences can involve culture, social class, personal influence, family, and situation, whereas the individual differences include consumer resources, motivation and involvement, knowledge, attitudes, personality, values and lifestyle (ibid). Kraft and Weber (2012) emphasize that gender differences play an important role in the decision-making process, as men and women tend to have different shopping motives and characteristics. As example, women to a higher degree wants to satisfy long term needs, whereas men tend to focus on satisfying the short term or immediate needs and wants (ibid).

A need recognition occurs when the consumer recognizes an inconsistency between the current state and a desired alternative state. Blackwell et al. (2001) argue that this initiating process is driven by an interaction between processed stimuli input and environmental- and individual variables. More specifically, the model proposes that information passes through the five stages before it is considered and used (ibid). These stages include exposure, attention, comprehension, acceptance, and retention. (ibid) Some researchers might consider the Consumer Decision Process outdated, but as Foxall (1990) stated, it is hard to deny its relevance. The model offers a clear system to describe how people make decisions today, making it easy for most people to understand and the sequential process makes it intuitively pleasing. (ibid)

4.3.5 The Consumer Decision Journey

Stankevich (2017) argues that traditional models, which illustrate the consumer decision making process as a funnel, fails to capture significant factors that have emerged as a result of the globalization, digitalization, and increasingly informed consumer. Hence, it is suggested that the shift from the traditional one-way communication, from the firm to consumers, towards a two-way conversation, requires a different perspective on the consumer decision making (Court, Elzinga, Mulder, & Vetvik, 2011). The authors proposed a revised version of the traditional decision-making model, also known as **The Consumer Decision Journey (2011)**. Court et al. (2011) supports the traditional EKB decision making model, however, instead of illustrating a linear process of consumer decision making, the model is portrayed as a circular process with an added loop,

where new brands can be added, or old ones subtracted as an active process. Moreover, the model comprises four different phases, including the initial consideration, active evaluation, moment of purchase, and post purchase experiences (Court et al., 2011).

As with the EKB model described earlier, the entry point of the model occurs when the consumer recognizes that he or she would like to satisfy one of their needs (ibid). The impulse of buying can be triggered by internal stimuli, personal events experienced by the consumer, such as the feeling of craving a snack (ibid). It can also be triggered by external stimuli, which on the other hand is characterized as influences from the outside e.g. an advertisement or a friend's recommendation. Hence, the first phase is shaped by the accumulated stimuli gathered through multiple touchpoints, which initiates the decision journey (ibid).

The phase of active evaluation involves a process of gathering information, adding or subtracting brands of consideration, and basically discovering the criteria which are important and prioritized in that specific decision making (ibid). The creators of the model argue that it would be impossible to evaluate all brands available in a category, hence, the consumer is most likely to consider only the options that fit the specific criteria, such as location nearby and price range among other things. Additionally, Lamb et al. (2011) emphasizes that having many alternatives to choose from is not necessarily good, as it can confuse the consumer and might cause a delay of making a decision or cause the consumer not to make the decision and buy in the end.

Another point where the consumer decision journey is different from the traditional EKB model, is the regarding the 'push' and 'pull' dynamics of marketing activities (ibid). More specifically, the authors argue that marketing used to be driven by companies and 'pushed' towards consumers through direct marketing, sponsorships and so on. In contrast, the consumer decision journey today has more of a 'pull' dynamic, as consumers are more involved and will draw on the information they need before making the final decision, which may include asking family members for recommendations and searching for information online (Court et al., 2011). The authors emphasize that the company driven marketing activities (e.g. direct marketing) are still important, but mostly when influencing the consumer's initial consideration set of brands and argue that as the consumer moves further through the decision journey, the influence of the different touch points change simultaneously (ibid).

If a consumer eventually decides to purchase a product or service, the process does not just stop here. The post purchase phase is essential, as Court et al. (2011) argue that it shapes the consumer's opinion for the following purchase decisions within the category, making it an ongoing cycle. Additionally, Court et al. (2011) states that *"(...) more than 60 percent of consumers of facial skin care products, for example, go online to conduct*

further research after the purchase—a touch points unimaginable when the funnel was conceived." (p. 6). Accordingly, the researcher speculates that this quotation emphasizes the increased importance of the post purchase phase, especially in the society we live in today, where digitalization has redefined many of our ways of doing things.

The researcher will base the analysis of the consumer decision making process within the purchase of analgesics and cough and cold remedies on the framework developed by Court et al. (2011). Also, the choice of using the Consumer Decision Journey (2011) instead of other frameworks, is due to its focus on motivational parameters which explains the reasons behind the consumer's purchasing patterns in a simple way, which supports the goal of the overall problem statement of the thesis.

4.4 Consumer Involvement

According to Lamb et al. (2011), the time and effort we, as consumers, put into the decision process and its belonging components is characterized as consumer involvement. Moreover, Zaichkowsky (2010) defined involvement as "a person's perceived relevance of the object based on inherent needs, values and interests" (p. 3), and argues that consumers may express involvement in a product, service, situation, or advertisement. Olshavsky & Granbois (1979) suggest that the concept of consumer involvement is a result of the realization that not all decision-making processes include extensive information search and evaluation of alternatives. Moreover, Kassarjian (1978) adds that it is in fact inappropriate to presume that the consumer actively goes through an extensive process every time a decision has to be made, as the truth is rather that most days are made up of mundane and quick decisions. Engel et al. (1995) argue that consumer involvement has a positive influence on consumer decision making. Additionally, Kotler (2013) suggest that increased consumer involvement results in greater motivation to search for and elaborate on necessary information about the product, which leads to a higher complexity of decision making.

4.4.1 Types of Consumer Decisions

Solomon (2013) argued that different degrees of complexity exist within consumer decision making, and that it may be convenient to think of these in a continuum where one end represents the habitual or routine response behavior, and the other end represents the extended problem-solving.

Consumers are typically claimed to show **routine response behavior** when the products or services are bought frequently, it is inexpensive, only involves internal information search, and the decision-making process generally requires little time of search and decision making (ibid). Hence, it could be a product that has been bought for several years, where the consumer is familiar with the brands available in the category, but still chooses to buy the same every time. An example could be the purchase of toilet paper or toothpaste (ibid).

On the other end of the continuum, is the **extended problem-solving**, which involves a very careful decision-making process where consumers typically have a high degree of involvement (ibid). These types of purchases are typically involving products that are not bought that frequently, or it can even be a first-time purchase (ibid). Consequently, the consumer may not have knowledge of the product category and available brands and will therefore naturally spend more time and effort searching for information, from internal as well as external sources. (Solomon, 2013)

Moreover, in the middle of the continuum we find the **limited decision-making** (ibid). As the name and placement on the spectrum indicates, this category of decision-making does typically not require as much time and investment from the consumer, as with the extended problem-solving (ibid). On the other hand, it is not as if the consumer buys products in this category on a habitual basis, as with the routine response behavior (ibid). Nevertheless, a lot of decisions fall under the category of limited decision-making, as the use of cognitive shortcuts (also known as heuristics) enables the consumer to *"(...) fall back on general guidelines instead of having to start from scratch every time"* (Solomon et al., 2006, p. 328)

New or repeated decision

Holdford (2015) argued that consumer decision-making within pharma can roughly be divided into two categories; it can either be a new or a repeated decision, where a new decision then can require extended- or limited problem solving. If it is a first-time and important purchase for the consumer, Holford (2015) argues that extended problem solving is required. Impulse purchases on the other hand, falls into the category of limited problem solving, as it is usually un-planned decision that occurs if consumers are exposed to some kind of external stimuli, such as advertisements (ibid). Additionally, repeat decisions can also involve different degrees of problem solving. Holdford (2015) claims that extended problem solving within a repeat purchase is most likely to occur if the consumer has experienced dissatisfaction with another product they have used before. Otherwise, the repeat purchases are generally argued to require limited problem solving (ibid).

"Patients often remain loyal to non-prescription cough and cold medications because they remember that previous use brought them relief. Rather than carefully weigh each alternative, the consumer simply chooses the brand that worked the last time." (Holdford, 2015, p. 213)

Hence, the researcher speculates that the Holdford's (2015) quotation could indicate that a repeat purchase within OTC-medicines is not necessarily related to brand loyalty, but more to more to habitual buying behavior, as suggested by Kotler & Armstrong (2016).

4.4.2 Factors influencing the level of consumer involvement

Lamb et al. (2004) argued that the level of consumer involvement is affected by five different factors. First of all, **previous experience** is argued to play an essential role regarding the level of involvement demonstrated by the consumer e.g. when a certain purchase becomes familiar, the involvement typically decreases, as the brain learns to make its own shortcuts, which is also known as heuristics (ibid). However, when consumers are purchasing a certain product or service for the first time, the involvement tend to increase (ibid). Moreover, it is argued that consumer involvement is directly and positively related to **interest** (ibid).

Another important factor influencing consumer involvement is **the perceived risk of negative consequences** (ibid). Lamb et al. (2004) argue that the risks can be divided into three categories, which include financial risk, social risk, and psychological risk. The category of financial risk involves *"(...) exposure to loss of wealth or purchasing power"* (Lamb et al., 2004, p. 200) Some scholars consider risk an antecedent to involvement (Chaffee & McLeod, 1973), while others argue that the conceptualization of risk is an integral part of consumer involvement (Laurent & Kapferer, 1985; Mitchell, 1999). Lamb et al. (2004) support the latter perspective and thus suggest that a higher perceived risk, whether it is financial, social- or psychological, will most likely be related to a likewise higher consumer involvement. As OTC-medicines generally has a low monetary value combined with a low sign- and hedonic value, it is suggested that parallels exist with low involvement products. However, it is argued that a certain degree of psychological risk may be identified due to the potential harmful effects an incorrect use or dosage may cause. Paddison & Olsen (2008) suggest that psychological risk is associated with temporal- and physical risk. The temporal risk within OTC-medicine is suggested to be high, as consumers are presumed to evaluate the immediacy and duration of relief in the purchase and post-purchase phase (ibid). Additionally, the physical risk is likewise perceived to be high, as it may involve performance (the degree of effectiveness and efficacy) and safety (potential risk of misapplication) (ibid).

Additionally, the level of consumer involvement might also be dependent on **the specific situation** e.g. Susan might usually buy low priced brands of juice but decides to see what other more quality options she could serve for her guests at the birthday brunch she is planning to throw in the weekend. Hence, the occasion of her birthday ends up getting the consumer more involved than usual. The last influencing factor emphasized by Lamb et al. (2004) is **social visibility**. More specifically, when consumers purchase products which are displayed to the social world and it is thereby taking part in defining them, there is a social risk involved. Thus, higher increased social visibility of a product is argued to lead to a higher involvement. (Lamb et al., 2004)

4.4.3 Measurements of Consumer involvement

Zaichkowsky (2013) developed the Personal Involvement Inventory (PII) (1985), which was suggested to be a context-free 20-item scale measuring "the motivational state of involvement" (p. 59). The PPI scale, which was later revised to consist 10 items instead of 20, was argued to be context-free in the sense that the meaning of the concept did not differ across the three identified antecedent factors, including characteristics of the person, the stimulus and the situation (Zaichkowsky, 2013). During the same year the PII scale was developed, Laurent & Kapferer (1985) proposed a five faceted framework of involvement, including 1) the perceived importance of the product, 2) the perceived risk importance, 3) the perceived probability, 4) the sign value, 5) the hedonic value (p. 43).

Richins and Bloch (1986) adds to the definition of perceived importance that consumers who show high levels of product involvement most likely find the product interesting. This interest might result from the perception that the product category is in line with the consumer's values and beliefs (ibid). Regarding the perceived risk importance, Laurent and Kapferer (1985) argue that it essentially involves the negative consequences that would emerge if a poor decision is made. The perceived risk probability is essentially characterized as the consumer's perceived likelihood of making a poor decision (ibid). According to Laurent & Kapferer (1985), the symbolic or sign value is something attributed to the product/consumption/purchase by the consumer. Pettigrew (2002) added that the sign value is related to the notion that consumers subconsciously want to achieve a desired self-image, which may be influenced by the several environmental factors, such as the culture the consumer belongs to. Chaudhuri and Holbrook (2002) suggest that the level of hedonic or emotional value a product comprises can range from high to low, where the high end characterizes a product with mostly pleasurable befits, and the low end characterizes a product with solely functional benefits.

Instead of suggesting a single definition and index of involvement, as Zaichkowsky (1985), Laurent & Kapferer (1985) proposes a framework which is argued to give a more full picture of the conceptualization, by measuring the five components of the model, which results in a full involvement profile of the consumer. The framework proposed by Laurent & Kapferer (1985) will be used in this thesis, to analyze the consumer involvement within the categories of cough and cold remedies and analgesics. However, the thesis will focus on mostly analyzing and discovering the consumer involvement profiles in a qualitative approach, in contrast to the mainly quantitative study employed initially (ibid). The researcher speculates that analyzing the consumer involvement through a qualitative perspective, may generate deeper insights to the consumer involvement profiles, which the researcher speculate is relevant to discover in order to answer research question 4: *How is the perceived level of involvement within the purchase of analgesics and cough and cold remedies?*

4.5 Brand Awareness

A brand is defined as "(…) a name, term, symbol, design, or combination thereof that identifies a seller's products and differentiates them from competitors' products." (Lamb et al., 2004) Furthermore, it is argued that a brand has three main purposes, which includes product identification, repeating sales, and new-product sales (ibid). More specifically, a brand should enable consumers to distinguish a specific product from others on the market (ibid). Additionally, brand equity refers to the value of a brand, and it is considered one of the most significant concepts in brand management (ibid). Thus, it is a concept widely discussed in research where numerous theoreticians have contributed with their conceptualization (Boulding, 1956; Levitt, 1962; Watkins, 1986; Bennett, 1988; Aaker, 1991; Keller, 1993).

One of the most cited theoreticians within branding and brand equity came up with definition and states that brand equity is *"a set of assets and liabilities linked to a brand, its name and symbol, that adds to or subtracts from the value provided by a product or service to a firm and/or to that firm's customers"* (Aaker, 1991, p. 15). Aaker developed the Brand Equity Model, which illustrates the different categories of brand assets, and suggests that a high level of brand equity creates value for the consumer as well as the firm that holds the brand (ibid). On the consumer side, Aaker (1991) argues that value is added by improving the interpretations and processing of consumer information. Moreover, it is suggested that brand equity can enhance customer satisfaction, as well as having a positive effect on the consumer's confidence in the decision-making process (ibid). There are several benefits for the firm as well, including the improvement of profit margins, enhancing customer retention, and gaining competitive advantage (ibid). The Brand Equity Model consists of perceived value, brand awareness, brand loyalty, brand associations, and other proprietary brand assets (ibid). However, the thesis will focus on the concept of brand awareness only, as the amount of existing research upon this particular concept in relation to the consumer decision-making journey is limited. Also, Macdonald & Sharp (2000), emphasizes the importance of brand awareness in the following quotation:

"(…) One of the major goals of marketing is to generate and maintain brand awareness, this is seen as particularly important in low-involvement situations where consumers may engage in little active search for information to aid choice." (ibid, 2000, p. 5)

Hence, it is relevant to include the concept of brand awareness in the discussion of what degree of consumer involvement exist within the purchase of OTC-medicine (ibid).

4.5.1 Evolution of the Brand Awareness Concept

The concept of brand awareness is not only a relevant, but occasionally also an undervalued component within the brand equity concept (Aaker, 1996). However, there is a common agreement among theoreticians within the field that brand awareness is a fundamental concept within the customer-based brand equity (Hoyer & Brown, 1990; Aaker, 1996; Laurent, Kapferer & Roussel, 1995). The following paragraphs will go through selected contributions to the conceptualization of brand awareness.

One of the first definitions of the concept was expressed by Assael and Day (1968), who claimed that brand awareness was based on unaided brand recall, and this idea was acknowledged by other theoreticians later on. Also, considering brand awareness as a trace in the consumer's memory, as well as identification and recognition of a brand under distinct conditions was stressed by Rossiter & Percy (1987). A few years later, Hoyer & Brown (1990) argued that brand awareness was a level of brand knowledge, which involved the consumer's recognition of a brand name. Moreover, the authors stated that brand awareness characterizes the lowest level of brand knowledge. Additionally, it was suggested by Hoyer & Brown (1990) that a positive relationship exist between brand awareness and repeat purchase decisions, which means that a higher brand awareness is likely to result in a higher possibility of the consumer making a repeat purchase.

Rossiter & Percy (1991) discussed the relevance of different types brand awareness in different situations, suggesting that aided brand awareness is mostly relevant when several options are present in the purchase situation. On the other hand, when there are not many options, spontaneous or unaided brand awareness should be used as a measure instead (ibid). Additionally, Rossiter & Percy (1991) was some of the first scholars to acknowledge that brand awareness could refer to more than just a brand name, but also include the design and packaging, as well as other characteristic features of the brand.

Aaker (1991) classified three measures of brand awareness in a hierarchical format, where brand recognition is considered the lowest level of awareness, brand recall is the moderate level of awareness, and top-of-mind is considered the highest level of brand awareness. Two years later, Keller (1993) added that brand awareness is a performance of brand recognition and brand recall. He further states that brand recognition is related to the consumer's ability to confirm previous experience with a brand, when the brand is revealed as a cue (ibid). Furthermore, brand recall is to a higher extent associated with the consumers capability of remembering a specific brand when e.g. a product category is given (ibid). In addition, Aaker (1996) argued that brands that have high levels of brand recognition and low levels of brand recall may be referred to as 'graveyard' brands. He explained that this type of brands usually has low consumer recognition outside of the store environment (Aaker, 1996).

Laurent et al. (1995) elaborates on the different measures of brand awareness presented. Firstly, it is argued that 'spontaneous' or 'unaided' brand awareness is measured when asking a consumer to mention the brands, they are known within a given category, without any help or guidance (ibid). Secondly, the 'top of mind' awareness is measured with the same approach, but with focus on the first mentioned brand (ibid). Thirdly, the 'aided' brand awareness involves presenting a selection of brands for the consumer, and then ask which of the brands the consumer recognize (ibid).

Baker (2003) supports the theory proposed by Miller (1956), which suggest that the human mind has limits in its capacity for processing information. More specifically, Miller (1956) suggest that the most adults are able to recall five to nine items in their short-term memory, and this notion is also known as the magic number seven (plus/minus two). Baker (2003) argue that this number might be used as a benchmark in testing any brand communication. Hence, the researcher speculates that this may be used as a benchmark when measuring brand awareness.

According to Macdonald & Sharp (2000), brand awareness has a significant effect on the consumer decision making by *"(...) influencing which brands enter the consideration set, and it also influences which brands are selected from the consideration set"* (p. 5) Hence, it is emphasized that brand awareness is not only relevant in getting consumers to recall and recognize a specific brand in the searching process, but also relevant in the phase where the consumer has to make the final choice (ibid). The authors suggest that consumers tend to use brand awareness as a heuristic e.g. by choosing the brand they know (ibid). Also, Macdonald & Sharp (2000) argue that consumers tend to show inertia in changing the habit of using this heuristic.

Keller (2013) defines the concept of brand awareness as "(…) the strength of the brand node or trace in memory, which we can measure as the consumer's ability to identify the brand under different conditions." (p. 72) Moreover, both Aaker (1991) and Keller (2013) claim that the concept consists of both brand recognition and brand recall. The former is defined as *"(...) consumers' ability to confirm prior exposure to the brand when given the brand as a cue"* (Keller, 2013, p. 73). More specifically, it is whether a consumer can recognize e.g. a shampoo that was seen in an ad earlier that same day, or maybe the week before. Moreover, brand recall is concerned with *"(...) consumers' ability to retrieve the brand from memory when given the product category, the needs fulfilled by the category, or a purchase or usage situation as a cue."* (ibid, p. 73)

Aaker & McLoughlin (2010) states that *"(...) awareness provides the brand with familiarity, and people like the familiar."* (p. 176). Keller (2013) supports this notion by arguing that the awareness and familiarity with a brand alone, may lead to the consumer choosing to purchase that specific brand. Overall, brand awareness plays a significant part within the consumer decision-making process, as the consumer's ability to recall and/or

recognize a brand consequently increases the likelihood of the consumer considering and actually purchasing the brand (ibid). Especially in low-involvement situations, familiarity has a greater effect on the quality perception of a brand than its physical characteristics do (Macdonald and Sharp, 2003).

The Elaboration-likelihood model, developed by Petty and Cacioppo (1983), supports the belief that consumers decision making of a low involvement product may be based on brand awareness. The authors explain that the low involvement may be explained by lack of purchase motivation or purchase ability, meaning that the consumer either do not care about the product or do not have much knowledge about the category (ibid). Additionally, Radder & Huang (2007) suggest that high-involvement products comprises high levels of brand awareness, and likewise low involvement products have low levels of brand awareness.

Rossiter and Percy (1997) suggest that consumers are most likely consider a variety of brands before selecting the one to purchase, and if the consumer does not know that the brand exist, it is difficult to be within that considered range. The range of brands considered is typically narrowed down as the consumer gets closer to making a final decision and ensuring a high level of brand awareness for a particular brand, consequently, makes the additional brands less likely to be thought of and recalled (Hoyer & Brown, 1990). Also, in purchasing situations where the consumer is less involved, even the slightest degree of brand awareness can be essential in determining the consumer's final decision (Hoyer & Brown, 1990). Macdonald & Sharp (2000) goes a little further and claims that despite the quality and prices of other brands, the brand with the highest brand awareness tend to be preferred by the consumer.

Keller (2013) argues that brand awareness affects the creation and strengthening of associations that construct the brand image. Hence, brand awareness can actually be considered a prerequisite for brand image, as a trace or node in memory has to be established before it is possible to create a brand image. Moreover, Court et al. (2011) emphasizes the importance of brand awareness stating that brands that are in the consumer's initial consideration set may be up to three times more likely to be purchased, compared to brands that are not in it.

Chapter 5 - Findings

The purpose with the following chapter is to present the analysis and findings of the quantitative- qualitative data collection.

5.1 Quantitative Findings

The following section presents the findings of the quantitative data collection. More specifically, descriptive statistics of the survey data is provided in order to give the reader an overview of the point of departure for the following statistical analyses. The internal reliability of the scales is tested using Cronbach's Alpha. Additionally, Chi-square Test of Independence is used to test the relationship between selected variables and demography.

Hypothesis testing

As Malhotra (2006) states, analyzing relationships between two or more variables usually involves some kind of hypothesis testing. A null hypothesis H_0, which indicates that the variables are independent of each other or of no effect, and an alternative hypothesis H_1, which indicates dependency between variables or effect, are formulated (Malhotra, 2006). Several statistical techniques can be used to test the relationship between two variables; however, the choice of test is dependent of what type of variables are being tested (Bryman, 2012). In this thesis, the researcher seeks to test the relationships between two nominal variables. Consequently, the Chi-square Test of Independence is suggested to be a proper choice of statistical test (Bryman, 2012).

5.1.1 Preparation of the Data Set

The data was retrieved from Google Forms, where the survey was published, and hereafter uploaded to the statistical software program, SPSS. The data consisted of a sample of 129 respondents in total. However, after the data was cleaned for outliers and missing variables, three respondent number 62, 74 and 90 were deleted from the data set. They were screened out in Q1, as they had not bought any kind of OTC-medicine within the last year. Hence, they did not proceed to complete the rest of the questions and it would therefore not make sense to include them in the following analysis. Thus, a sample of 126 respondent remains after the data cleaning. Some variables were recoded into numeric variables for the purpose of the data analysis. Moreover, the age groups were combined to three distinct groups instead of six, as some of the initial groups had a very small number of respondents and the researcher therefore speculated that it would affect the following data analysis if the groups were not merged. For a full overview of measurement types and re-coding of the data set, see appendix 6. A descriptive overview of the demographics of the respondents is presented in the following paragraph.

Cronbach's Alpha

The internal reliability, or inter-item correlation, of the scales used in the online survey is measured by conducting tests of Cronbach's alpha, as mentioned earlier in Chapter 3, section 2.1 Research Strategy and Design. The internal reliability was tested on q4, where the estimated alpha coefficient was .667 (appendix 7). The result is considered acceptable according to Malhotra (2006) and Pallant (2013), considering the value over .6 and the scale consisting of eight items. However, the researcher speculates that the internal reliability could be increased, if more items were added to the scale.

5.1.2 Demographic Characteristics of Respondents

The final data set which was used for the further data analysis consisted of a total of 126 respondents (N = 126), including a gender distribution of 82.5% female (n = 104) and 17.5% male (n = 22) cases. Moreover, the majority of the sample respondents was within the age group of 18-25 years (n = 53) and 26-35 years (n = 45), whereas some of the age groups only had 1-3 respondents. If the expected frequencies in each cell, which is also called the expected count, are too small the results of a test may not be valid (Bryman, 2012). Moreover, it is argued that a solution to this problem can be to combine or merge one or more categories with neighboring categories (Bryman, 2012). Consequently, the initial seven categories in q10 (measuring age groups) were combined and reduced to the following three categories: 1) under 18-25 years, 2) 26-55 years, and 3) +56 years. For an overview of the initial age groups and the exact frequencies, see appendix 8.

Respondents from all regions of Denmark were represented in the data set, with an overweight of respondents living in the Capital Region of Denmark (n = 38) and the Region of Southern Denmark (n = 60). Furthermore, respondents from the Central Jutland Region represented 14.3% (n = 18) of the total sample, and Region Zealand (n = 5) and Region North Jutland (n = 5) represented 5% each. For a full overview of the distribution of respondents within regions, see appendix 9.

5.1.3 Analysis of Important Attributes

The purpose with the following section is to identify the product attributes that are considered most important for the consumer when purchasing OTC-medicine. This is done through a descriptive analysis of the scale measuring the consumer's perceived importance of selected tangible as well as intangible attributes (q4). Moreover, a chi-square test is conducted to measure if the attributes are dependent on the demographics of the consumer (gender and age group).

A descriptive statistics table is conducted in SPSS to get an overview of the mean and standard deviation for each item on the scale (q4a-q4h). A 5-point Likert scale has been used to measure the respondent's perceived importance of the distinct attributes, which means that the closer the mean value of each item is to five, the

higher the average perceived importance that specific item has. A mean value of 1 indicates that the average tendency of respondents perceives the attribute as 'not important at all', whereas a value of 5 indicates that average tendency of respondents perceive the attribute is 'very important'. Consequently, it is proposed that cases with mean values below three will not be considered important in influencing the consumer purchase decision. By excluding the variables with mean values below three, the items concerning *availability* (q4e, M = 3.80), *recommendations from pharmacists* (q4d, M = 3.50), *price* (q4b, M = 3.48), and *recommendations from family and friends* (q4f, M = 3.19) are perceived as the most important attributes when purchasing OTC-medicine. For an overview of the descriptive statistics of q4, see appendix 10.

5.1.3.1 Relationship between attributes and demographics

Attributes and gender

Firstly, it is tested whether the attribute of price is dependent of gender, where the following hypotheses are formulated and tested using Chi-square test of independence (using $\alpha = 0.05$).

H_0: The attribute of price is independent of gender

H_1: The attribute of price is dependent of gender

Table 1

Chi-Square Test

q4b_importance_price and q8_gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.357[a]	4	.500
Likelihood ratio	5.208	4	.267
Linear-by-Linear Association	1.879	1	.170
N of valid cases	126		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 1.92.

The result of the chi-square test, illustrated in Table 1, shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. This means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and the attribute of price, X2 (4, N = 126) = 3.357, p = .500.

A chi-square test is conducted on the attribute of recommendations from pharmacists (q4d) as well (using α = 0.05). The following hypotheses are formulated:

H_0: The attribute of recommendations from pharmacists is independent of gender
H_1: The attribute of recommendations from pharmacists is dependent of gender

Table 2

Chi-Square Tests

q4d_importance_anbefaling_farma and q8_gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.428[a]	4	.051
Likelihood ratio	7.890	4	.096
Linear-by-Linear Association	5.123	1	.024
N of valid cases	126		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.27.

The result of the chi-square test, illustrated in Table 2, shows a p-value which is higher than the chosen significance level, α = 0.05. As with the attribute of price, this means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and the attribute of recommendations from pharmacists, X2 (4, N = 126) = 9.428, p = .051. However, it is discovered that the relationship between recommendations from pharmacists (q4d) and gender (q9) is stronger (p = .051) than the relationship between price (q4b) and gender (q9) (p = .500), as the p-value is significantly lower in the first Pearson Chi-square test. However, as long as p<.05 we cannot reject the null hypothesis H_0, nor accept the alternative hypothesis H_1.

Additionally, a chi-square test is conducted on the attribute of availability (q4e) and gender (using $\alpha = 0.05$). The following hypotheses are formulated:

H0: The attribute of availability is independent of gender
H1: The attribute of availability is dependent of gender

Table 3

Chi-Square Tests

q4e_importance_tilgængelighed and q8_gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.126[a]	4	.713
Likelihood ratio	2.083	4	.721
Linear-by-Linear Association	.111	1	.739
N of valid cases	126		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 1.22.

The result of the chi-square test, illustrated in Table 3, shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. As with the attribute of price and recommendations from pharmacists, this means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and availability, X2 (4, N = 126) = 2.126, p = .713.

Lastly, a chi-square is conducted on the attribute of recommendations from family and friends (q4f) and gender (using $\alpha = 0.05$). The following hypotheses are tested:

H_0: The attribute of recommendations from family and friends is independent of gender
H_1: The attribute of recommendations from family and friends is dependent of gender

Table 5
Chi-Square Tests
q4f_importance_anbefaling_fam_ven and q8_gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.155[a]	4	.038
Likelihood ratio	12.946	4	.012
Linear-by-Linear Association	4.649	1	.031
N of valid cases	126		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.27.

The result of the chi-square test, illustrated in Table 5, shows a p-value which is lower than the chosen significance level, $\alpha = 0.05$. Different from the other attributes tested, this means that the null hypothesis H_0 can be rejected, and the test therefore indicates that there is significant relationship between recommendations from friends and family (q4f) and gender, X2 (4, N = 126) = 10.155, $p < .05$. Hence, the null hypothesis H0 can be rejected with 95 percent confidence, accepting the alternative hypothesis H_1, stating that recommendations from family and friends are dependent of the gender.

To summarize the findings from the Chi-square tests conducted in SPSS, the researcher speculates that the only attribute that has a significant relationship with gender is the attribute of recommendation from family and friends (q4f), as the test for this variable was significant at $p < .05$. Additionally, the results of the descriptive statistics suggest that women tend to perceive the recommendations from family and friends as a more important attribute, compared to men (see appendix 11).

However, it is important to notice the comment below each Chi-square table, as it describes whether the data used for the test meet the assumption of all expected frequencies to be >5. Since the richness of the data collected from the online survey is limited, the comments under each table also state that a certain percentage

of the cells in each test have an expected count less than 5. Consequently, this indicates that the reader should critical of the Chi-square test of independence results, and this consequently reduces the validity of the scale.

Attributes and age

It is tested whether the attribute of price is dependent of age, where the following hypotheses are formulated and tested using Chi-square test of independence (using $\alpha = 0.05$).

H_0: The attribute of price is independent of age

H_1: The attribute of price is dependent of age

Table 5

Chi-Square Tests

q4b_importance_price and q9_recoded

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	24.384[a]	8	.002
Likelihood ratio	19.196	8	.014
Linear-by-Linear Association	9.117	1	.003
N of valid cases	126		

a. 7 cells (46.7%) have expected count less than 5. The minimum expected count is 1.40.

The result of the chi-square test shows a p-value which is lower than the chosen significance level, $\alpha = 0.05$. Hence, the null hypothesis H_0 can be rejected, and the test therefore indicates that there is significant relationship between price (q4b) and age groups, X^2 (8, N = 126) = 24.384, $p < .05$. Hence, the null hypothesis H0 can be rejected with 95 percent confidence, accepting the alternative hypothesis H_1, stating that price is dependent of the age groups. The results of the descriptive statistics indicate that the lower age group, the more importance is perceived for price.

Next, it is tested whether the attribute of recommendations from pharmacists and age are

It is tested whether the attribute of recommendations from pharmacists is dependent of age, where the following hypotheses are formulated and tested using Chi-square test of independence (using $\alpha = 0.05$).

H_0: The attribute of recommendations from pharmacists is independent of age

H_1: The attribute of recommendations from pharmacists is dependent of age

Table 6

Chi-Square Tests

q4d_importance_anbefaling_farma and q9_recoded

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.221[a]	8	.837
Likelihood ratio	4.281	8	.831
Linear-by-Linear Association	.000	1	1.000
N of valid cases	126		

a. 4 cells (26.7%) have expected count less than 5. The minimum expected count is 1.65.

The result of the chi-square test shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. This means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and the attribute of price, X^2 (8, N = 126) = 4.221, p = .837.

Moreover, it is tested whether the attribute of availability is dependent of age, where the following hypotheses are formulated and tested using Chi-square test of independence (using $\alpha = 0.05$).

H_0: The attribute of availability is independent of age

H_1: The attribute of availability is dependent of age

Table 7
Chi-Square Tests
q4e_tilgængelighed and q9_recoded

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.457[a]	8	.097
Likelihood ratio	10.877	8	.212
Linear-by-Linear Association	2.832	1	.092
N of valid cases	126		

a. 4 cells (26.7%) have expected count less than 5. The minimum expected count is 1.65.

The result of the chi-square test shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. This means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and the attribute of price, X^2 (8, N = 126) = 13.457, p = .097.

Moreover, it is tested whether the attribute of recommendations from family and friends is dependent of age, where the following hypotheses are formulated and tested using Chi-square test of independence (using $\alpha = 0.05$).

H_0: The attribute of recommendations from family and friends is independent of age
H_1: The attribute of recommendations from family and friends is dependent of age

Table 8

Chi-Square Tests

q4f_importance_anbefaling_fam_ven and q9_recoded

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.808[a]	8	2.13
Likelihood ratio	8.880	8	.3.52
Linear-by-Linear Association	3.841	1	.050
N of valid cases	126		

a. 4 cells (26.7%) have expected count less than 5. The minimum expected count is 1.65.

The result of the chi-square test shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. This means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and the attribute of recommendations from family and friends, X^2 (8, N = 126) = 10.808, p = 2.13.

To summarize the results from the chi-square tests conducted to test the relationship between selected attributes and age, it was found that the attribute of price (q4b) was significant at $p < .05$, which indicates that we can confirm with 95 percent confidence that the perceived importance of price as an attribute is related to the age group of the respondent. Additionally, the descriptive statistics suggest that the price is perceived as more important for respondents in lower age groups, and accordingly, it has less importance the higher age group a respondent is in (see appendix 12).

5.1.4 Choice of Distribution Channel

The following section focuses on identifying the consumer's preferred choice of distribution channel when purchasing OTC-medicines. This is done through a descriptive analysis of the closed, categorical measure (q2). Additionally, chi-square tests are conducted to estimate if the preferred choice of distribution channel is related to the demographics of the respondents.

The results of the data collected from the online survey reveals that more than half of the respondents (57.9%) most often purchases OTC-medicine at the pharmacy. About one third of the respondents (34.9%) indicated that they mostly purchase OTC-medicines at the supermarket. Hence, only a very small proportion of the sample prefer to make their purchase at gas stations, kiosks, 7-eleven, Matas, or online.

Table 9
Descriptive Statistics

Q2_OTC_purchase_where

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Apoteket	73	57.9	57.9	57.9
	Supermarkedet	44	34.9	34.9	92.9
	Tankstationer, kiosker, 7/11	4	3.2	3.2	96.0
	Matas	1	.8	.8	96.8
	Online (eks. Apopro.dk, Apotekeren.dk	4	3.2	3.2	100.0
	Total	126	100.0	100.0	

5.1.4.1 Relationship between choice of distribution channel and demographics

Choice of distribution channel and gender

We want to test the relationship between the choice of distribution channel and gender using a Chi-square test of independence (using $\alpha = 0.05$). The following null hypothesis and alternative hypothesis are defined.

H0: The location consumers most often tend to buy OTC-medicines is independent of gender
H1: The location consumers most often tend to buy OTC-medicines is dependent of gender

Table 10
Chi-Square Tests

q2_OTC_purchase_where and q8_gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.614[a]	4	.461
Likelihood ratio	3.047	4	.550
Linear-by-Linear Association	2.324	1	.127
N of valid cases	126	58	

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is .17.

The result of the chi-square test, illustrated in Table 10, shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. This means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between gender and the choice of distribution channel, X^2 (4, N = 126) = 3.614, p = .461.

Choice of distribution channel and age group

Next, we want to test the relationship between the choice of distribution channel and age groups. Hence, following hypotheses are made:

H0: The choice of distribution channel is independent of age group
H1: The choice of distribution channel is dependent of age group

Table 11

Chi-Square Tests

q2_OTC_purchase_where and

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.452[a]	8	.235
Likelihood ratio	8.536	8	.383
Linear-by-Linear Association	.946	1	.331
N of valid cases	126		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .13.

The result of the chi-square test, illustrated in Table 11, shows a p-value which is higher than the chosen significance level, $\alpha = 0.05$. This means that we cannot reject our null hypothesis H_0, and the test therefore indicates that there is no significant relationship between age group and the choice of distribution channel, X^2 (8, N = 126) = 10.452, p = .235.

5.1.5 Measuring Brand Awareness

The level of brand awareness is analyzed through the measurements suggested by Laurent et al. (1995) and Keller (2013), consisting of spontaneous/unaided brand awareness, top of mind recall, and aided brand awareness. The questions constructed to measure the unaided brand awareness and top of mind recall include q5 (cough and cold remedies), and q6 (analgesics). Whereas the aided brand awareness is measured in q7, where brands within both categories are mentioned.

The unaided brand awareness is measured by count of the number of brands mentioned, as well as identifying which brands are mentioned the most (Laurent et al., 1995). The top of mind recall simply counts the first brand mentioned, and which of these brands are repeatedly mentioned the most. The aided awareness essentially counts the number of brands the respondents are able to recognize, as well as the overall level of awareness per brand.

The top of mind brand recall for each of the three categories was measured by using the descriptive statistics function in SPSS to make frequency tables of q5, and q6. This provided the researcher with an overview of the data. See appendix 13 for a full overview of the frequency tables. As the questions measuring unaided brand awareness (q5, q6) had an open-ended response format, the researcher decided to divide the responses into categories based on the first mentioned brand. Additionally, minor spelling errors were found in several of the open-ended answers, however, if the intention of what brand the respondent referred to was clear, it was counted in. For example, some wrote “Strepsil” or “Stepsil” instead of “Strepsils” (appendix). Separate categories were made for answers mentioning 1) product types within the category (not a specific brand), 2) other OTC-medicines (outside of the category), and 3) answers such as “ingen” and “pas”, indicating that the respondent could not think of any brands.

By looking at the means of each measurement from the frequency analysis, it is revealed that the analgesics category has the highest mean (M = 2.68), compared to the categories of cough and cold remedies (M = 1.81). This indicates that the average level of unaided brand awareness is highest within the category of analgesics. However, the standard deviations also reveal that the category of analgesics has the most widespread sample (q6, SD = 1.891), compared to the category of cough and cold remedies (q5, SD = 1.770). The minimum and maximum values of each measurement show that both categories have respondents who is not able to recall any brands in the specific category unaided. Moreover, the maximum values for the category of cough and cold remedies (n = 12) and analgesics (n = 13) are. For a full overview of the descriptive statistics of the two measures of unaided brand awareness, see appendix 13

Table 12 – TOP 3 BRANDS

Top of mind brand awareness within the category "Cough and cold remedies"

Count*	Brand
56	Strepsils
9	Otrivin
6	Halls
5	Zyx
5	Zymelin
1	Mentioned product type within the category (not specific brand)
0	Mentioned other OTC-medicines (outside of the category)
8	Could not mention any brands within the category

**Number of times the brand was mentioned first.*

As illustrated in Table 12, the results show that Strepsils, within the category of cough and cold remedies, had the highest level of **top of mind recall**, as 44.4% of the respondents (n = 56) mentioned this brand as the first in their answer. The brand Otrivin followed with 7.1% (n = 9) of the respondents mentioning this as the first brand they could think of. The large gap between Strepsils and the following brands specified in Table 12 indicates that the brand Strepsils dominates the category of cough and cold remedies. Moreover, Strepsils is the only brand with a relatively high level of brand awareness within the category, as almost half of the respondents were able to recall this as the first brand that come to mind.

The top 3 of brands mentioned first, consist of three throat lozenges brands and two nasal spray brands, which is suggested as characteristic products for the category. Moreover, one respondent did not mention any brands but instead described two types of products, "cough sirup and cough tablets", and 6.3% (n = 8) of the respondents were not able to mention any brands within the category. Overall, the results of the survey data indicate that a significant difference in between top of mind brand recall exist within the category of cough and cold medicines, with Strepsils as the leading brand.

As mentioned earlier, the unaided brand awareness is measured in terms of the number of brands the individual respondent can recall without any guidance (Laurent et al., 1995). However, the open-ended response format of the questions measuring unaided brand awareness (q5, q6) was not considered optimal for the data analysis. Therefore, the researcher decided to recode the variables according to the number of brands mentioned e.g. "Otrivin, Strefen, Strepsils" was recoded to the numeric variable "3", as a total of three brands were mentioned by that concerning respondent. Missing values in q5 and q6 were recoded with an arbitrary value imputation, in this case the missing value was replaced with the value "999" to make the number stand out from the rest

of the answers. It was then specified in the in the "missing" column in SPSS, to make sure that these values in the further statistical analysis. A frequency analysis was conducted for each of the new variables, to give an overview of the distribution.

Unaided brand awareness: cough and cold remedies

The results of the frequency analysis show that more than half of the respondents in the sample (67.6%, n = 71), excluding missing values, were able to recall 1-2 brands within the category of cough and cold remedies. As illustrated in Table 13, as the number of mentioned brands increases, the share of respondents within these groups decreases. Additionally, the data shows that it is rather difficult for the respondents to mention more than four brands, as the valid percentage for respondents mentioning 5-12 brands are 6.8% (n = 7). Furthermore, the researcher speculates that the two respondents that are able to mention 8 and 12 brands respectively within the category, might be working in the pharmaceutical industry or the health sector, as the higher level of awareness within the category deviates so much from the mean (M = 2.17). Only a small amount of the respondent sample (3.8%) were not able to mention any brands in the category at all.

It is worth noticing that the missing values within the category of cough and cold remedies (q6) represents 16.7% of the total sample. The researcher speculates that the missing values could indicate that the respondents were not able to recall any brands in the given situation, which would mean that the missing values could be recoded to "0" and transferred to the first row, adding up to 25 respondents (19.8%) in the first row. However, the researcher has chosen not to do this, as there would always be some uncertainty associated with the missing values, and the researcher can never be 100% certain of the underlying reason why the respondent did not provide an answer. As Bryman (2012) argues, open-ended questions are more time consuming and require greater effort from the respondent. Hence, the researcher suggest that this could have played a role in regard to detecting a higher drop-out rate.

Table 13

Frequency table: q5_unaided_brandawareness_coughandcoldremedies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	3.2	3.8	3.8
	1	41	32.5	39.0	42.9
	2	30	23.8	28.6	71.4
	3	13	10.3	12.4	83.8
	4	10	7.9	9.5	93.3
	5	2	1.6	1.9	95.2
	6	3	2.4	2.9	98.1
	8	1	.8	1.0	99.0
	12	1	.8	1.0	100.0
	Total	105	100.0	100.0	
Missing	999	21	16.7		
Total		126			

As the questions measuring unaided brand awareness (q5, q6) had an open-ended response format, the researcher decided to divide the responses into categories based on the first mentioned brand. Additionally, minor spelling errors were found in several of the open-ended answers, however, if the intention of what brand the respondent referred to was clear, it was counted in.

Table 14 TOP 3 BRANDS

Top-of-mind brand awareness within the category "analgesics"

Count*	Brand
73	Panodil
18	Pamol
15	Ipren
1	Mentioned product type within the category (not specific brand)
0	Mentioned other OTC-medicines
1	Could not mention any brands within the category

**Number of times the brand was mentioned first.*

The analysis within the category of analgesics showed a relatively high **top-of-mind** recall of the brand Panodil, as 58% of the respondents (n = 73) mentioned this as the first brand. Pamol and Ipren followed with 14.3% (n = 18) and 11.9% (n = 15) respondents respectively. Moreover, the statistical distance (stat. dis.)

between the first and second highest mentioned top-of-mind recall in the category of analgesics is higher (stat. dis. = 55) compared to the stat. dis. In the category of cough and cold remedies. The top three of the brands with the highest level of top-of-mind recall are all either containing the drug paracetamol or ibuprofen, which are some of the most recommended analgesics, simply because it has fewer side effects (Promedicin, 2019).

Unaided brand awareness: analgesics

Table 15 shows that 72.5% (n = 87) of the respondents, excluding missing values, were able to recall 1-3 brands. Moreover, 21.4% (n = 27) of the respondents were able to recall 4-5 brands within the category of analgesics, which is almost twice as much as the amount/share of respondents able to recall 4-5 brands within cough and cold remedies, which is 11.4% (n = 12). This indicates that the overall brand awareness is higher for the category of analgesics. The median (Mdn = 3.00) and mean (Mdn = 2.80) confirms this assumption. As seen in the measurement of unaided brand awareness within the category of cough and cold remedies, two respondents were able to recall a significantly higher number of brands compared to the mean (M = 2.80), which is illustrated in Table 15 where we see that two respondents could recall 11 and 13 brands each. The share of respondents not able to mention any brands are quite small, and only account for 1.7% (n = 2) of the total sample (excl. missing values).

Table 15

Frequency table: q6_unaided_brandawareness_analgesics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.6	1.7	1.7
	1	30	23.8	25.0	26.7
	2	22	17.5	18.3	45.0
	3	35	27.8	29.2	74.2
	4	13	10.3	10.3	85.7
	5	14	11.1	11.1	96.8
	6	2	1.6	1.6	98.4
	11	1	.8	.8	99.2
	13	1	.8	.8	100.0
	Total	120	100.0	100.0	
Missing	999	6			
Total		126			

Aided brand awareness

The brands were chosen randomly by search of each category on the online website Webapoteket.dk. There are several online distributors of medicine available (both Rx and OTC), however, this specific website was chosen as it has the largest selection of OTC-medicine (Netpatient, 2020).

The results of the frequency analysis show that all respondents were able to recognize at least three of the listed brands. Moreover, it is discovered that 12 brands were recognized on average (M = 12.40), and some were even able to recognize all of the 25 listed brands. The standard deviation in the measurement of aided brand awareness (q7, SD = 3.616) was significantly higher than for the two measurements of unaided brand awareness (q5, SD = 1.724; q6, SD = 1.484). This indicates that the answers in the measurement of aided brand awareness (q7) varies more from the mean, which the researcher speculates could be due to the fact that respondents are being guided. Hence, the data points are closest to the mean in the measurement of unaided brand awareness in the category of cough and cold remedies. Additionally, the researcher argues that it is important to have in mind that the measurement only looks at the recognizability of the brands but does not take into account how well the respondent knows the brands. Hence, a respondent who have ticked off 18 brands might not have tried it themselves. It is enough if the respondent recognizes the brand name.

Table 16

Aided brand awareness measurement (q7)

N	126
Mean	12.40
Median	13.00
Std. Deviation	3.616
Variance	13.075
Minimum	3
Maximum	25
Top 5*	Panodil (n = 126), Pamol (n = 120), Ipren (n = 120), Strepsils (n = 117), Treo (n = 116)

*Highest levels of brand awareness (across both categories)

Table 17 displays the top 10 ranking of the measurement of aided brand awareness, or what Keller (1995) argue is brand recognition. As illustrated in the table, Panodil has the ultimate highest measured level of aided brand awareness, as all respondents (n = 126) were able to recognize the brand. Put together with the unaided brand awareness and top-of-mind measurement, where Panodil scored top points as well, the researcher argues that this brand has an overall very high level of brand awareness, which is speculated to be the desired state.

See appendix 14, table 1, for a full overview of all 25 brands and their ranking according to the survey analysis results.

Table 17

Top 10 - Aided Brand Awareness (q7)

Ranking	Brand	n*	%**
1	Panodil	126	100
2	Pamol	120	95.2
3	Ipren	120	95.2
4	Strepsils	117	92.9
5	Treo	116	92.1
6	Zymelin	99	78.6
7	Otrivin	94	74.6
8	Kodimagnyl	94	74.6
9	Pinex	89	70.6
10	Zyx	77	61.1

*Number of respondents

**Proportion of respondents able to recognize the brand

5.2 Qualitative Findings

The following chapter presents the findings of the qualitative data collection, assembled after the quantitative data collection. More specifically, this chapter will involve a thematic analysis of the conducted in-depth interviews, which draws on the findings from the quantitative data collection, revealing significant themes and subthemes within the subject of the purchase of OTC-medicines.

5.2.1 Approach of Analysis

One of the most common, yet rarely acknowledged approaches of analyzing qualitative data is the thematic analysis, which is employed in this thesis (Bryman, 2012). Moreover, Braun & Clarke (2006) argued that *"Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex account of data."* (p. 5) In contrast to e.g. grounded theory and critical discourse analysis, the thematic analysis approach does not have 'an identifiable heritage' and have not been clearly defined as to how such an analysis should take form. However, Braun & Clarke (2006) developed a guideline for conducting a thematic analysis, which will be elaborated further in this chapter.

Generally, qualitative methods of data analysis can be divided into two camps. The first camp comprises methods that are *"(...) tied to, or stemming from, a particular theoretical or epistemological position."* (ibid, p. 4) Whereas the second camp refers to methods that are *"(...) independent of theory and epistemology and can be applied across a range of theoretical and epistemological approaches"* (ibid, p. 5). It is suggested that approaches of qualitative data analysis such as grounded theory would belong in the first camp, whereas the thematic analysis fits in the second camp (ibid). The thematic analysis will follow structure of the 6-phased of a thematic analysis suggested by Braun & Clarke's (2006), which consist of the following:

1) Familiarizing yourself with your data
2) Generating initial codes
3) Searching for themes
4) Reviewing themes
5) Defining and naming themes
6) Producing the report

The thematic analysis will be presented in thematic maps to give an overview of the process of narrowing down the themes. Qualitative data analysis software such as NVivo have not been used, as the researcher found it hindering for the creative process. Moreover, the researcher speculates that doing the analysis manually enabled an understanding of the underlying meanings and dig deeper into the collected information.

5.2.2 Thematic Analysis

The purpose with the thematic analysis is to examine the consumer behavior when purchasing OTC-medicines and find underlying motives behind the consumer's choice of distribution channel, which is done through an interpretation of the data collected from the in-depth interviews.

Initially, the transcribed interviews were read and re-read several times, while initial thoughts and ideas were noted. Afterwards, initial codes were generated based on the framework approach suggested by Bryman (2012, p. 579). Several themes and subthemes found within the transcribed data were organized and synthesized in matrixes with relevant quotations (see appendix 15). The initial thematic map, illustrated in Figure 1, was created in to provide an overview of the data. The initial overall themes that were found to appear within the 10 interviews included Symptoms, Purchase Situation, OTC-medicine, Brands, Attributes, Attitude, Influences, and Distribution Channels. In order to specify the findings of the qualitative data and create the best possible value from the coding, a total of six thematic maps were constructed: 1) Initial thematic map, 2) Developed thematic map, 3) Additional thematic map A, 4) Additional thematic map B, 5) Additional thematic map C, and lastly, 6) Final thematic map. With each thematic map, the themes and subthemes were narrowed down to represent fewer variables, and the final thematic map only included the most significant drivers and barriers discovered.

Initial Thematic Map

The initial thematic map indicates that the interviews considered a variety of different attributes, possible distribution channels, and factors that may influence the purchase of OTC-medicine. Moreover, a specific set of brands was mentioned several times by the interviewees including Panodil, Ipren, Strepsils, Treo, Otrivin and Zymelin among others. The data revealed distinct attitudes towards the purchase, consumption and advertising of OTC-medicine, where some were found to be reluctant to taking medicine in general and only did so very rarely and others found it natural to take OTC-medicine now and then, to reduce pain or discomfort.

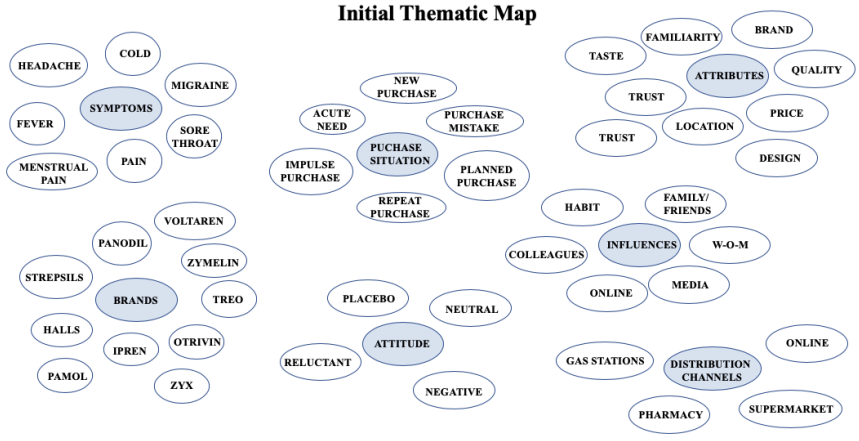

Figure 1: Own creation - Initial Thematic Map

Developed Thematic Map

The developed thematic map illustrated in Figure xx shows a refined and more precise representation of the interview data, while still including the most important themes and subthemes discovered in the initial coding phase. The refined version was developed by further reviewing, organizing and allocating the initial codes into distinct groups. An essential change from the initial thematic map, illustrated in Figure 1, to the developed thematic map, illustrated in Figure 2, is the creation of the two general themes drivers and barriers. The drivers refer to parameters which might drive the consumer to purchase OTC-medicine, while the barriers refer to parameters which might hinder the consumer in making a purchase. Moreover, the branches of the two main themes, drivers and barriers, extends to the subthemes; tangible attributes, intangible attributes, influences and intrinsic motives.

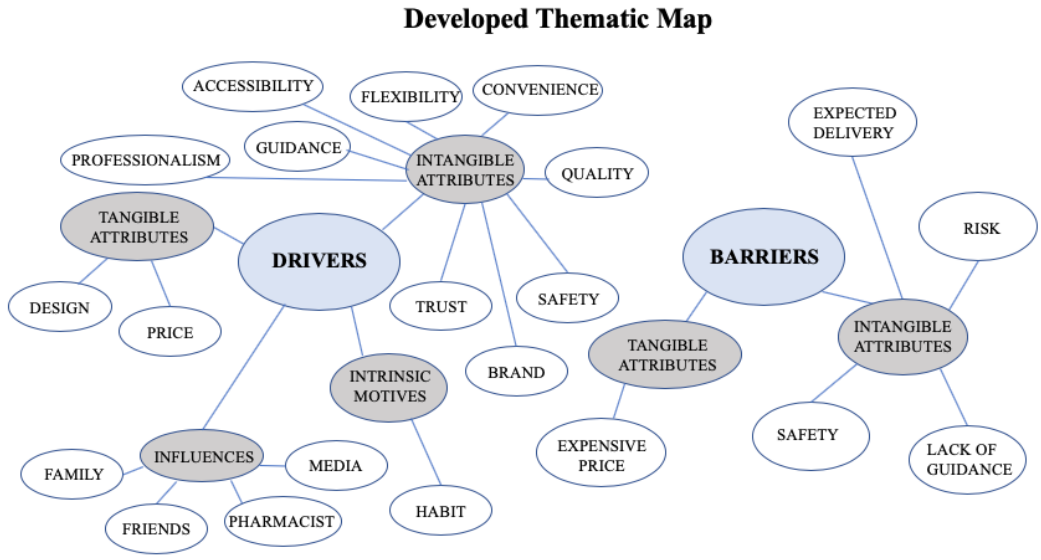

Figure 2: Own creation - Developed Thematic Map

The researcher proposes three maps in addition to the developed map, to more specifically address the research question: What are the motivations behind the consumer's choice of distribution channel? Hence, each of the additional maps illustrates the drivers and barriers for the three distribution channels most frequently mentioned in the interviews; pharmacy, supermarket, and online.

Additional Thematic Map A (Pharmacy)

The additional thematic map 1, presents the most significant drivers and barriers within the purchase OTC-medicine with the pharmacy as distribution channel. As illustrated in Figure 3, the three factors found to be most relevant to involve barriers were Trust, Selection, and Quality, whereas the barriers were Price and Store location.

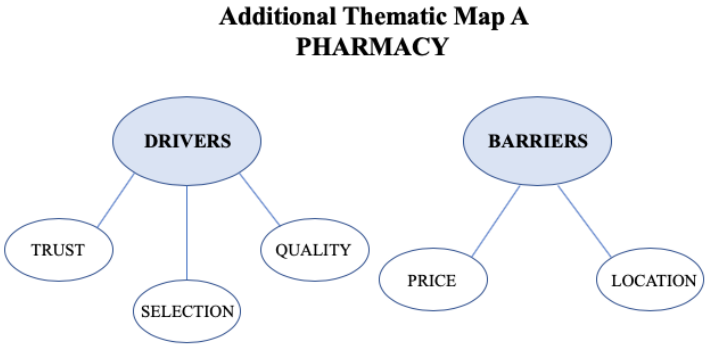

Figure 3: Own creation - Additional Thematic Map A (Pharmacy)

Drivers

This section will explain and elaborate on the key drivers and barriers identified in the additional thematic map, illustrated in Figure 3, which is based on the pharmacy as distribution channel. One of the key drivers discovered in the thematic analysis is Trust. The concept refers to the feeling of confidence and security that purchasing OTC-medicine from a pharmacy, will result in getting the 'right' and most optimal treatment to cure or heal the consumer's symptoms. The advice and guidance from the pharmacist also fits within this concept, as several of the interviewees state that one of the primary reasons that they go to the pharmacy, is so they can get advice on what medication to use and get a deeper explanation of how the medicine works, how to take the medication and see what alternatives exist.

An interviewee states that even though she has done some research prior to going to the pharmacy, the advice from the pharmacist would have a bigger influence on her final purchase decision: "Sometimes I do research online. But when I am thinking back, even if I have done some research or found out something, I still end up listening to the pharmacist's advice e.g. if they have any alternatives" (Interviewee 1, transcriptions and recordings on file). Additionally, several interviewees also mention that it is an old 'tradition' to buy OTC-medication in the pharmacy, as this was the only place possible before the liberalization. The researcher speculates that if this is the place people have always bought their, they might connect it with the familiarity and habit of old traditions. This indicates the strong influence of the pharmacist when purchasing OTC-medicines.

Another key concept discovered within the drivers is Quality. Several of the interviewees mention that they perceive OTC-medicines bought at a pharmacy with better quality. Selection is also considered one of the main drivers when consumers are purchasing OTC-medicine. Some of the interviewees expressed that if they wanted to be certain to get their preferred brand, they would go to the pharmacy, as they believed that they had the widest selection. It could also be in a situation where the consumer is not completely sure on what exact brand to purchase, and prefers to have more options to choose from, than what is available e.g. in the local supermarket.

Barriers

The most significant concepts that emanated from the data, identified as barriers to choosing the pharmacy when purchasing OTC-medicines, is Price and Location. Generally, the interviewees perceived the prices in pharmacies as more expensive compared to other distribution channels such as supermarkets or online. As one of the interviewees stated: "I just often feel like it is a little more expensive in the pharmacy compared to the supermarket." (Int. 9, recordings/ transcriptions on file). Hence, this quotation indicates that the consumer is price conscious and might have noticed several times, that she pays more the OTC. Several of the interviewees stated that the distance they had to the pharmacy would play a big role in deciding where to purchase OTC-medicines. Consequently, if the consumer/interviewee was in an acute situation and had other options nearby, they would most likely choose another option than the pharmacy. One of the interviewees stated the following when asked which distribution channel she would prefer: "Then I would go to the pharmacy. And if there was not any nearby, then I would go to an OTC-outlet in a supermarket." (Int. 2, recordings/ transcriptions on file).

Additional Thematic Map B (Supermarket)

Figure 4 illustrates the key drivers and barriers within the purchase OTC-medicine with the supermarket as distribution channel. The most significant drivers were found to be Convenience, Price, and Accessibility, while the most important barriers discovered were Lack of guidance, Selection, and Health Risk.

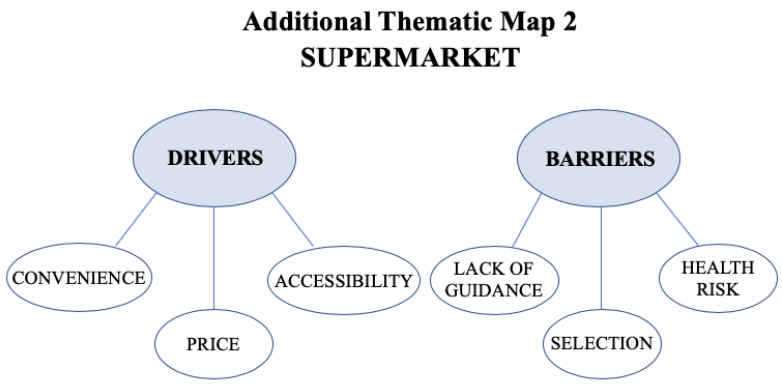

Figure 4: Own creation - Additional Thematic Map B (Supermarket)

Drivers

Within the thematic map based on the supermarket as distribution channel, the primary drivers identified were Convenience and Price. There was consensus among all of the interviewees that one of the key drivers of choosing the supermarket over other distribution channels, was the fact that it was convenient, usually because the purchase could be combined with the grocery shopping. One of the interviewees stated the following when asked about which distribution channel he preferred: "Well it is typically in the local area – supermarkets where you do grocery shopping anyways and then you combine it with the purchase of OTC-medicines." (Int. 4, recordings/ transcriptions on file). Another interviewee adds that people probably choose the supermarket because they do not want to bother going into several different stores, if they can get all they need in one (Int. 6, recordings/transcriptions on file).

Price was another factor that was repeatedly recognized among the interviewees, as a driver for choosing the supermarket. As one of the interviewees states: "From my experience it is cheaper to buy in supermarkets, which makes me motivated to go there instead of going to the pharmacy." (Int. 9, recordings/ transcriptions on file). This quotation explicitly indicates that price is an important attribute, and that it is actually a driver for some consumers when deciding where to purchase OTC-medicines.

The third and last driver based on the supermarket as distribution channel is accessibility. The interviewees mention that people living in smaller villages might not have a pharmacy nearby, but they will usually always have access to a supermarket with a smaller selection of OTC-medicines. One of the interviewees stated the following in the context of what arguments she could think of to explain why people might choose to go to the supermarket instead of pharmacy: "Because the pharmacies are not in present in all smaller villages, then you might have to take a longer drive to get to the nearest pharmacy." (Int. 9, recordings/ transcriptions on file). Hence, the quotation is in the context of emphasizes the benefit of the supermarkets being easily accessible for all. Also argued to fit within the category of accessibility is the opening hours, as one of the interviewees states that supermarkets usually have longer opening hours, which means that you have the possibility to purchase analgesics at 9 pm, should the need occur (Int. 4, recordings/ transcriptions on file).

Barriers

The most critical concepts that are found to be hindering for consumers making a purchase at the supermarket are Selection and Lack of guidance. As well as the wider selection of OTC-medicines was identified as one of the drivers for choosing the pharmacy, the absence of a wide selection could function as a barrier to choosing the supermarket as distribution channel. Several of the interviewees would even be willing to go to another store instead of purchasing an alternative, if the supermarket did not have the individual's preferred brand.

However, there was a consensus that this only applied to situations that were non-acute. This means that if the individual were in a lot of pain and needed e.g. some kind of analgesics right away, there would be a willingness to purchase an alternative to the preferred brand. One of the interviewees stated the following when asked about what they usually do if their preferred brand was sold out e.g. at the pharmacy: "Well, if I was not having a headache, then I would wait. But if I was having a pounding headache and just needed something [to cure the pain] then I could be willing to try something else." (Int. 10, recordings/ transcriptions on file).

Some of the interviewees mentioned the lack of guidance from pharmacists as a hindering factor, which was often related to the fear of buying the 'wrong' OTC-medicine. This opinion was especially applied to new purchases, which was emphasized in the following statement: "It is with 100% certainty that I would not consider going to the supermarket the first time I was to buy D-drops" (Int. 1, recordings/ transcriptions on file). The interviewee further explained that it was really important for her to get the right guidance from a pharmacist when purchasing OTC-medicine for her daughter, as she was concerned with not only her own medical consumption, but very much also what is consumed by her daughter.

Additional Thematic Map C (Online)

The additional thematic map developed considering the online distribution channel is illustrated in Figure 5. Considering an online distribution channel, the main drivers were found to be Anonymity, Flexibility, Price. Moreover, the main barriers discovered were Expected delivery and Trust.

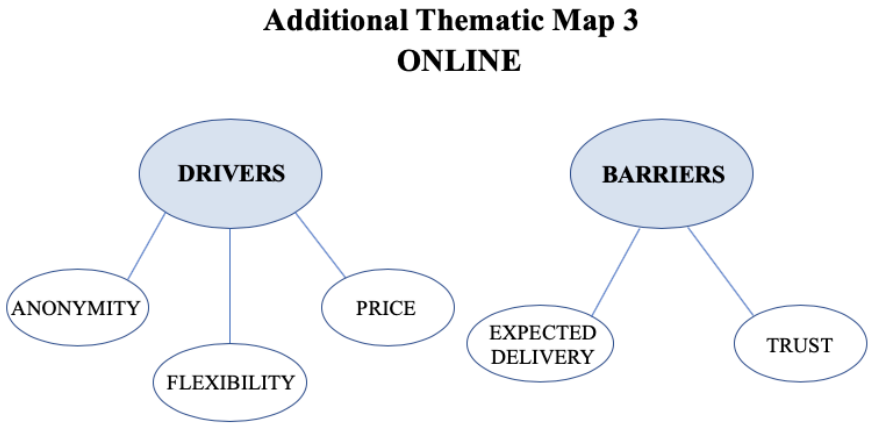

Figure 5: Own creation - Additional Thematic Map C (Online)

Drivers

Taking point of departure in the online universe as distribution channel, the key drivers discovered were Flexibility, Anonymity, and Price. Within the concept of flexibility lies the 24/7 availability to search for, discover and make a purchase of OTC-medicines which is independent of time and location. Moreover, one

of the interviewees argue that is makes the busy everyday life easier: “People go to work and then they can just order what they need online and boom, it is in your mailbox two days later. I must say that I think this is the future.” (Int. 6, recordings/ transcriptions on file).

A factor which distinguishes the online distribution channel from other alternatives is the anonymity and privacy that comes with shopping online. More specifically, some people might not want others to see what OTC-medicine they are purchasing, as they consider it a private matter. One of the interviewees mentioned a situation where she felt uncomfortable buying Imodium at her local supermarket: “I thought that it was a bit embarrassing to ask for [Imodium], as you kind of imply indirectly that you have problems with your stomach, and I did not want the cashier in my local supermarket, whom I encounter once a week or more, to know about my stomach problems” (Int. 3, recordings/ transcriptions on file).

The last factor identified as a driver within the online distribution channel was price. Several of the interviewees mention that an incentive to buy OTC-medicine online might be the lower expected price, as well as opportunities for special member offers and rebates. One of the interviewees stated the following about the attractiveness of buying OTC-medicine online: “I think it has a lot to do with these member offers and rebates on other products that you might need anyway. For example, then you could also get that day cream you are using on sale.” (Int. 9, recordings/ transcriptions on file). Hence, the rebates and offers on other products such as creams might tempt the consumer to buy OTC-medicine when they are placing the order anyways. Another interviewee shared her experience on buying another brand than the one she had experience with, as it was cheaper: “I had tried Otrivin before, but then I saw that Zymelin was cheaper, so I decided to buy that.” (Int. 2, recordings/ transcriptions on file). Hence, the data suggest that price sensitive consumers might choose the online distribution channel when purchasing OTC-medicine.

Barriers

The most critical concepts within the barriers of choosing the online distribution channel is Expected delivery and Trust. There was a great consensus among the interviewees that a hindrance for choosing the online distribution channel was due to the longer expected delivery, which might be problematic if the consumer experiences an acute feeling of pain and needs some kind of medical treatment right away. One of the interviewees states the following regarding the consequence of longer expected delivery as a hindrance: “If I was feeling ill, it would take some time for it [the medicine] to get here, whereas if I just went to Netto I could get it right away.” (Int. 3, recordings/ transcriptions on file). Hence, the longer expected delivery was found to be a key barrier in choosing the online distribution channel to purchase OTC-medicine – at least, if it was for treatment in an acute situation.

Another major barrier discovered in the data was related to trust. This includes general trust to e-commerce, as well as the verification that the products offered lives up to the medical standards. “You cannot really be sure of what you get. Well you just cannot. That is also why I always check what it is and do research on what kind of package it [the medicine] usually comes in.” (Int. 6, recordings/transcriptions on file). This quotation illustrates the suspicion or mistrust in purchasing OTC-medicines online. The lack of guidance is also connected to concept of trust, as one of the interviewees states the following: “Well, you might not get the same guidance. For example, if I have a migraine buy Panodil, when it is in fact not enough to with Panodil because migraine has to be treated with another type of analgesic.” (Int. 2, recordings/ transcriptions on file). Hence, the lack of guidance also created a form of health risk for the consumer, or at least a risk of buying a medicine that is indicated for another treatment purpose.

Final Thematic Map

After ongoing analysis and further modifications to the codes and their placements in the map, the most significant and relevant drivers and barriers were presented in the final thematic map, illustrated in Figure 6. The results within the final thematic map indicates that the most significant drivers for the purchase of OTC-medicine were: *Trust*, *Quality*, *Convenience*, and *Price*. Furthermore, the most significant barriers identified were: *Location*, *Expensive Price*, *Lack of Guidance*, and *Trust*. The final thematic map illustrates the main drivers and barriers across distribution channels.

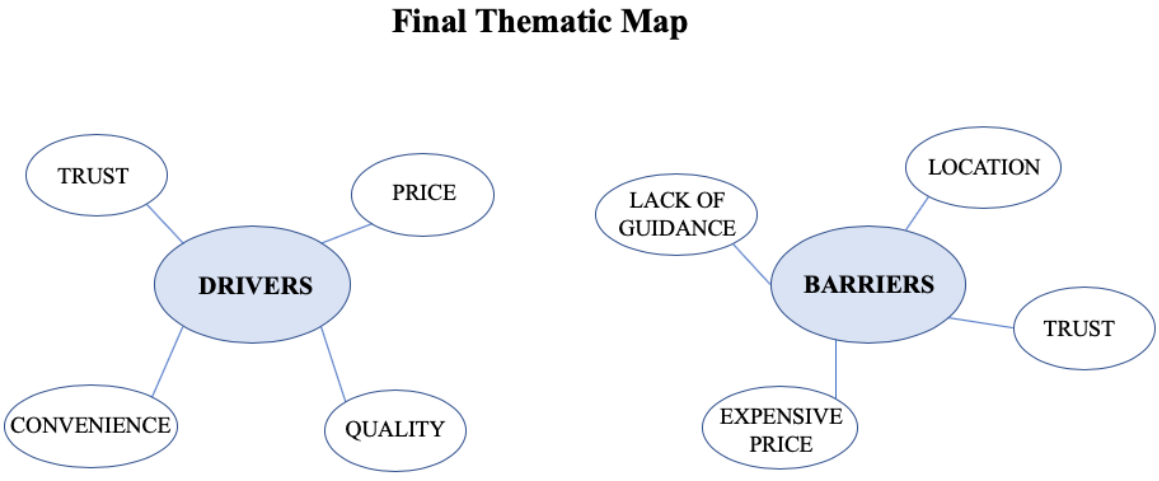

Figure 6: Own creation - Final Thematic Map

The final thematic map illustrates the main drivers and barriers within the consumer’s purchase of OTC-medicines. The final thematic map as well as the additional thematic maps A-C will be used in the further analysis to answer the research questions. It is important to note that the thematical maps do not show the

driver and barriers for each subject interviewed, the maps rather represent a subset of the concepts and opinions discovered in the interviews. Hence, the purpose with developing thematic maps is to find the main drivers behind the choice of distribution channel.

5.2.3 Measuring Consumer Involvement

The purpose with the following section is to apply Laurent & Kapferer's (1985) five faceted framework of measuring consumer involvement in a thematic analysis of the 10 interviews conducted. As mentioned earlier, the model proposes that consumer involvement is based on five determinants: 1) perceived importance/interest, 2) perceived risk importance, 3) perceived risk probability, 4) sign value, and 5) hedonic/pleasure value.

Perceived importance

The analysis of the qualitative data suggests that the perceived importance or interest is relatively low, as the majority of the interviewees displayed a low to moderate interest within the category. This is argued to be partly because of the low level of hedonic value, which will be further elaborated. However, there were a couple of outliers who indicated a higher interest in the purchase of OTC-medicines than others, e.g. because they consider themselves very deliberate in their choice of consumption and health (Int. 1, int. 6, transcriptions on file).

The majority of the female interviewees mentioned that they preferred to have a continual supply of analgesics, whereas the male interviewees had a tendency to mostly purchase analgesics as the need occurred. One of the interviewees stated the following about her supply of analgesics: *"I like to have Panodil in stock. Then I have a package in my bag, one on my bedside table, and one in my bathroom."* (Int. 3, transcriptions on file). This might indicate that the interviewee feels a certain degree of safety to have analgesics on supply, just in case the need occurs, as she would like to feel prepared. It is discovered that the male interviewees do not put as much effort in the safety aspect, in fact only one of the male respondents indicated a degree of interest within the purchase of OTC-medicines. It is worth noticing that this male respondent was also the oldest of the interviewees. Hence, the both age and gender might have an influence on the degree of interest within the purchase of OTC-medicines, indicating that if the consumer is male, the interest, involvement and perceived risk might increase with age.

Perceived risk importance

Based on the interview data, it is suggested that the risk importance related to financial risk and psychological risk. Hence, if the consumer perceives the price of the OTC-medicine as inexpensive, the consumer would not recognize it as a critical risk if he/she were to make a wrong purchase, as the monetary loss is little. One of the interviewees stated the following: *"It is not that big an amount of money (...) It is kind of the same as*

toothpaste, just another product." (Int. 4, recordings/transcriptions on file). The interviewee's comparison of OTC-medicine and toothpaste clearly indicates the low perceived risk he associates with the purchase of OTC-medicine. The same interviewee states the following a little further in the interview, expressing his perceived concerns about the consequences of buying a wrong product: *"If it turns out that the product is not working [the way it is supposed to], then I will just search for a new product."* (Int. 4, recordings/ transcriptions on file). Hence, the interview data indicate that the financial risk linked to the purchase of OTC-medicines is low. However, the findings also show a higher perceived psychological risk, as the interviewees want analgesics and cough and cold remedies that are effective in treating their pain or discomfort, and at the same time are safe, in order to avoid potential misapplication of the OTC-medicines.

Perceived risk probability

Based on the qualitative data, the perceived likelihood of making a poor decision is suggested to decrease as the consumer's knowledge and experience about the category increases. Hence, the perceived risk probability would be lower if the consumer had a thorough knowledge about the product, compared to making a purchase within a category that he/she never any experience with. An interviewee emphasizes that if she was to buy OTC-medicine within a new category, she would perceive a greater risk of buying the wrong product and as a result, she would most likely become more involved in such a situation (Int. 2, recordings/transcriptions on file). However, several of the interviewees indicated that they considered the purchase of OTC-medicine at distribution channels other than the pharmacy with a higher level of risk. More specifically, a higher risk was perceived be the interviewees of buying products with the incorrect indication or lack of guidance on the dosage and/or side effects.

Sign value

The interviewees indicated a low or almost non-existing symbolic or sign value to the OTC-medicines, which is seen in their desire for the purchase to be as convenient and quickly done. Based on the analysis of the qualitative data, the researcher speculates that this is closely related to the hedonic value, which is explained in the following section.

Hedonic value

The analysis of the interview data suggest that OTC-medicines is perceived to represent mostly functional benefits and would as a result be placed in the low end of the hedonic continuum suggested by Chaudhuri and Holbrook (2002). This is explained by the fact that consumer simply use the products eliminate a form of pain or discomfort that has arisen. An interviewee states the following: *"Products that I go for are products that have the ability to relieve my pain."* (Int. 4, recordings/transcriptions on file).

5.2.4 The Consumer Journey Within the Purchase of OTC-medicines

The purpose of this section is to outline the customer journey for the consumer purchase of OTC-medicine, based on Court et al. (2009) consumer decision making journey and the findings. In the proposed model, the need recognition usually occurs when the consumer identifies a state of health that deviates from the normal e.g. experiences pain in form of a headache or a sore throat, after which the consumer will continue to the next stage of searching for information. However, some interviewees states that they usually wait to see if the pain could be cured by any natural solutions such as sleeping or eating some food. If the symptoms get worse, the consumer will then continue to the next phase. Dependent if the consumer has experienced similar situation previously or it is a first time or at least more unknown experience with a lack of experience to draw on, the approach will be different. The interviews revealed that e.g. experiencing headache could be an example of a situation where the consumer is not that involved in searching for external information and is most likely to go to the local supermarket or and buy what they typically buy. However, if the consumer experiences a situation that has a more unfamiliar nature, the consumer is more likely to go to the pharmacy as the pharmacologist working in the pharmacies are the only people allowed to give guidance and advice on OTC-medicines.

As Court et al. (2011) stated, consumers are most likely to consider options that are relevant and fit the specific criteria. Hence, if the consumer experiences acute headache or migraine, he/she is most likely to consider a distribution channel that is nearby. As example, one of the interviewees stated that she was willing to go to another store nearby if her preferred brand was out of stock. However, if the pain was acute, she would most likely be willing to consider an alternative (Int. 10, recordings/transcriptions on file). Based on the conducted interviews, it is proposed that the initial set of brands considered are highly influenced on the consumer's own previous experience, as well as the recommendations from friends and family. However, in the phase of active evaluation consumers may replace this initial set of brands right up until the moment of purchase. The consumer will evaluate the importance of product attributes and where some consumers are mostly focusing on buying the cheapest alternative, other consumers would happily pay a little more to make sure that they get the safest and most effective option.

Up until the purchase decision, many evaluations take place. If the consumer has decided to make his/her purchase at the pharmacy, the guidance from the pharmacist may have a big influence on the final purchase. However, if the consumer has decided to go to a supermarket, factors such as the price and packaging design is suggested to play a bigger role. Moreover, if the purchase is made online the purchase decision is to a large extent influenced by the selection and information provided on the web page. The interviews revealed that consumers are highly influenced by the recommendation from pharmacists whose authority and expert

knowledge has the power to convince the consumer to consider other brands, which might not even have been in the initial consideration set.

After the final decision has been made and the consumer makes his/her purchase, the post purchase experience is the result of the effect of the OTC-medicine. Hence, if the consumer has a good experience with e.g. a certain brand of nasal spray, he/she is more likely to recommend it to his/her family, friends and other peers. Whereas a bad experience with a product will first of all mean that the option of re-purchase is reduced to a great extent, as well as the probability of the consumer recommending that specific brand to others.

Impulse buying behavior

The survey revealed that some consumers, mostly women, prefer to have a package of e.g. analgesics in stock, just in case. For this segment, the need recognition might occur while standing in line at the local supermarket. As one of the interviewees states, she might realize that she needs to buy a package of analgesics as she remembers that she recently took the last pills in the blister package and would always prefer to have one package in stock, just in case (Int. 3, Int. 3, recordings/transcriptions on file). This impulse buying behavior could be triggered by seeing the box of OTC-medicine placed at the check-out counter. In this case, the consumer will go through a very short decision-making process, as she usually purchases the same brand every time. This could be explained from loyalty, but most interviewees also revealed that they purchase the same brand out of habit, meaning that it is not as if the brand has a crucial significance, but rather because the brand is familiar to the consumer and because it is “what I have always bought” (Int. 9, recordings/transcriptions on file).

Chapter 6 - Discussion

The following chapter will discuss the findings from the survey and interviews, presented in chapter five and six, in relation to the theoretical background introduced in chapter four. The chapter will be divided into four parts (A-D), where each part will focus on discussing the proposed answer to each of the research questions.

6.1 Discussion of the research questions

6.1.1 Part A

Part A of the discussion will address the research question: **Which product attributes are considered the most important for the consumer, when purchasing OTC-medicines? And are these attributes dependent on the demographics of the consumer?**

According to the Consumer Decision Journey proposed by Court et al. (2011), today's consumers tend to be more involved in the decision-making process, drawing on the information from family and friends before making a final decision. Blackwell et al. (2001) suggest that the consumer's decision-making process is influenced by previous experiences and external variables, in form of either environmental influences or individual differences. The findings suggest that the following product attributes are proposed to be the most important for the consumer when purchasing OTC-medicines: *availability*, *recommendations from pharmacists*, *price*, and *recommendations from family and friends*.

It is suggested that the attribute of recommendations from family and friends is statistically significant to gender at $p < .05$, indicating that recommendations from family and friends are dependent of the gender. Moreover, it is proposed that women tend to perceive the recommendations from family and friends as a more important attribute, compared to men. It is suggested that the attribute of price is statistically significant to age group at $p < .05$, indicating that price is dependent of the age groups. The data analysis indicates that the lower age group the respondent belongs to, the higher perceived importance is assigned for the attribute of price, suggesting that older consumers are less price sensitive.

6.1.2 Part B

Part B of the discussion will address the following research question: **What is the level of brand awareness within the categories of analgesics and cough and cold remedies?**

The analysis of the survey data indicates that the overall measured level of brand awareness within the categories of analgesics and cough and cold remedies is low, which is primarily due to the limited number of brands the respondents were able to recall in the measure of unaided brand awareness.

The average level of unaided brand awareness is found to be highest within the category of analgesics. Within the category of analgesics, the majority (72.5%, n = 87) of the respondents, excluding missing values, were able to recall 1-3 brands. Moreover, 21.4% (n = 27) of the respondents were able to recall 4-5 brands within the category of analgesics, which is almost twice as high the percentage able to recall 4-5 brands within cough and cold remedies (11.4%, n = 12).

The findings indicate that more than half of the respondents in the sample (67.6%, n = 71), excluding missing values, were able to recall 1-2 brands within the category of cough and cold remedies. The results show that it is difficult for the respondents to mention more than four brands, as the valid percentage for respondents mentioning 5-12 brands is 6.8% (n = 7). According to Miller's (1956) theory on the limited capacity of the human mind, most adults are able to recall between five and nine items in their short-term memory. Applying this to the brand awareness measurement, the fact that the majority of the respondents were only able to recall 1-3 brands, suggest a low level of brand awareness. The measurement of top-of-mind brand recall showed higher number of recalls within the category of analgesics, compared to the category of cough and cold remedies. The statistical analysis of top-of-mind recall, within the category of analgesics, indicate a relatively high-level top of mind recall of the brand Panodil, as 58% of the respondents (n = 73) mentioned this as the first brand. Pamol and Ipren followed with 14.3% (n = 18) and 11.9% (n = 15) respondents respectively.

Within the category of cough and cold remedies, Strepsils (44.4%) was the brand with the highest measured level of top of mind recall, followed by the brand Otrivin (7.1%). According to Aaker (1991), the top of mind brand recall is argued to be the most important of the three metrics measuring brand awareness of a specific brand, as the respondent is not guided in any way and the first brand mentioned indicates a truly aware consumer within that brand. Hence, with almost half of the respondents recalling Strepsils, as well as the large gap between the following brand, Otrivin, it is suggested that Strepsils dominates the category of cough and cold remedies. For each of the categories, the highest level of top-of-mind brands recall are Panodil (58%, n = 73) and Strepsils (44.4%, n = 56), with Panodil being the ultimate winner. The majority of the interviewees also indicate, that Panodil is perceived as such a generic brand that they may use the brand name when talking about analgesics, even though they are not thinking about the brand Panodil in particular, it could also be Pamol, Ipren or Treo.

As Keller (1993) states, brand recognition is the consumer's ability to confirm a previous experience with a brand, whereas brand recall is the consumer's ability to remember a brand when e.g. a specific product category is given. In relation to the findings, the brand recognition is argued to be high for the brands Panodil and Strepsils, and the brand recall is agued to be high for the two brands as well. Looking at the categories in general, it is argued that the brand recognition is on an average level, whereas the brand recall is low. This is

what Aaker (1996) refers to as ‘graveyard’ brands, suggesting that these brands will only be considered when the consumer is about to make an in-store purchase. Thus, brands within OTC-medicines would be characterized as ‘graveyard’ brands, according to Aaker (1991). However, what might be added to this conception, based on the findings, is that this notion tends to be confirmed mostly in the case of a repeated purchase or in a category where the consumer has a higher degree of knowledge and interest. Based on the findings, it is argued that in a purchase situation where the consumer has limited knowledge and experience, the research of products and brands begins before entering the store. The findings indicate that consumers collect information online and through their friends, family members, and collages. This is suggested to be due to the higher trust consumers have on information from people they have a relation to, believing “if you thought the product was effective, then it must be”.

The findings from the quantitative data indicate that the brands Panodil and Strepsils has the highest levels of brand awareness, which is confirmed in the qualitative interviews where interviewees also mention that these two specific brands as the ones they prefer to buy. As mentioned in the literature review, Macdonald & Sharp (2000) argue that brand awareness has a significant effect in which brands “enters” the consideration set. The findings suggest that the brands which are in the initial consideration set is also the brands which are most likely to be purchased, when the consumer makes the final decision. In the case of OTC-medicines, it is suggested that brands with a low level of awareness will have difficulty of being considered by the consumer. The findings suggest that the strongest gateways for brands with a low or non-existing level of awareness to be included in consumers’ consideration set, is suggested to be if the consumer receives advice from family and friends, or even better, if the advice or recommendation comes from a pharmacist. This notion is based on the analysis of the interviews, which shows that several of the interviewees were open to trying new brands if they were recommended by the pharmacist, but otherwise not really willing to change their set of preferred brands. According to the findings, this is most likely to be due to the perceived trust, professionalism and quality that the pharmacist hold. Moreover, the results from both the quantitative and qualitative data support Macdonald & Sharp’s (2000) findings that consumers tend to use brand awareness as a heuristic, and that it is difficult for consumers to change the habit of using this heuristic in the decision-making process.

Several of the interviewees mention that they usually purchase the brand Panodil when they need analgesics, because that is what they have always purchased and also because Panodil is the analgesic brand they have grown up with and which their parents bought. Also, the findings indicated that some consumers are less willing to buy other brands than what they are used to. Several interviewees showed a willingness to try new brands, as long as it was verified by the pharmacist that the content and quality was the same. However, there were a few outliers, primarily male interviewees, who states that they did not have any preferences within brand, previous experience or anything, price and convenience was simply the most important. This confirms

the findings from the quantitative phase suggesting a relationship between gender and the attribute of recommendations from friends and family, and specifically that there might be a stronger tendency to value recommendations from friends and family in the purchase of OTC-medicines, if the consumer is a woman.

6.1.3 Part C

Part C of the discussion will address the following research question: **What are the motivations behind the consumer's choice of distribution channel?**

The qualitative findings reveal that the preferred distribution channels are the pharmacy and supermarket, which support the findings of the online survey, where these two were measured to be the two most preferred distribution channels as well. The results of the thematic analysis conducted in chapter 5, suggest that the main motivations behind the consumer's choice of distribution channel are different according to the consumer's preferred choice of distribution channel. However, the overall key drivers are *Trust*, *Quality*, *Convenience*, and *Price*, whereas the most significant barriers discovered include *Location*, *Expensive Price*, *Lack of Guidance*, and *Trust*.

With the pharmacy as distribution channel, the main drivers are *Trust*, *Selection*, and *Quality*, whereas the barriers include *Price* and *Location*. The findings reveal that an overall trust towards the pharmacists, the quality of the guidance they provide, and selection of products are major driver in choosing the pharmacy as distribution channel. However, the fact that pharmacies are not represented in every smaller village and thereby not easily accessible for everyone, indicates to the most significant barrier for consumers.

With regards to the supermarket as distribution channel, the main drivers are *Convenience* and *Price*, and the barriers are *Selection* and *Lack of Guidance*. Several of the interviewees who preferred to purchase OTC-medicines at the supermarket, mention that the convenience of being able to buy the analgesics or cough and cold remedies in parallel with another errand such as grocery shopping, is a major motivation. Triggers that might prevent consumers going to the supermarket to purchase OTC-medicines are to a large extent the lack of guidance and selection, especially when it is concerning a new product category.

Lastly, considering the online distribution channel, the drivers are *Flexibility*, *Anonymity* and *Price*, whereas the barriers are *Expected delivery* and *Trust*. Although the majority of the interviewees indicated no preference for choosing the online distribution channel when purchasing OTC-medicines, they do recognize the lower prices, the flexibility of being able to place an order any time of the day, and the anonymity that follows as significant drivers. However, there was consensus about the significant barriers of trust and longer expected

delivery. The researcher speculates that this is related to the level of perceived risk associated with OTC-medicines, which is explained in Part D of the discussion.

Additionally, the findings indicate that gender differences might have an influence on the choice of distribution channel. The analysis of the qualitative data show that the female interviewees have a tendency to have a continual supply of analgesics, whereas the male respondents only purchase analgesics in a situation where a specific need occurs and where it would be necessary to relieve the pain acutely. Hence, this supports the theory of Kraft and Weber (2012), which argues that women tend to focus more on satisfying long term needs, whereas men tend to focus more on immediate needs and wants.

The findings reveal that the general attitude towards consuming OTC-medicines and advertising of OTC-medicines is surprisingly reluctant. Several of the interviewees indicates states that they try to avoid taking analgesics and cough and cold remedies unless it is strictly necessary. The researcher suggest that this is related to the perceived risk associated with the OTC-medicines, which will be further elaborated in the following section.

6.1.4 Part D

Part D of the discussion will address the following research question: **How is the perceived level of involvement within the purchase of analgesics and cough and cold remedies?**

Based on the analysis of consumer involvement, employing a five-faceted framework by Laurent & Kapferer (1985), it is suggested that the overall consumer involvement within the purchase of analgesics and cough and cold remedies is considered to be low. However, not the lowest level of the involvement continuum suggested by Solomon (2013), as findings indicate that the consumption of OTC-medicines entails a moderate level of psychological risk for the consumer. More specifically, the level of involvement within the purchase of analgesics and cough and cold medicines is suggested to lie in between the routine response behavior and limited decision-making, on the involvement continuum suggested by Solomon (2013).

Lamb et al. (2004) argues that the consumer's previous experience has a positive effect on the level of involvement. The findings confirm this notion, as the majority of the interviewees mention that they take previous experiences into consideration when evaluating brands in the purchase of OTC-medicine. However, the findings also indicate a couple of outliers who do not consider previous experience or brand preference but are willing to buy any brand as long as it can relieve the discomfort or pain the consumer experiences.

Richins and Bloch (1986) and Lamb et al. (2014) argue that consumer involvement is directly and positively related to interest. The findings support this theory, as the general view among the interviewees is that they perceive OTC-medicines as low involvement products in which they do not have any specific increased interest in, other than concerning the functionality of the products. Some of the interviewees however, had certain product categories, where they consider themselves more involved than others. As example, one of the interviewees mentioned that she considers the purchase of analgesics a habitual purchase, and therefore consider herself less involved in that purchase compared to other OTC-medicines, such as cough and cold medicines.

Laurent & Kapferer (1985) and Lamb et al. (2004) support the notion that perceived risk is an important factor in determining the level of involvement, indicating that a higher perceived risk relates to a higher level of consumer involvement. The qualitative findings indicate that there is a psychological risk involved with the purchase of OTC-medicines. More specifically, several of the interviewees points out that there is a risk of buying the 'wrong' medicine when making the purchase through other distribution channels other than the pharmacy, due to the lack of guidance on indication and dosage. The few outliers within the interviewees, who did not perceive any risk in the purchase of OTC-medicines, were likewise the interviewees with the lowest perceived involvement. Hence, the findings support the conception that perceived risk is positively related to consumer involvement.

Laurent and Kapferer (1985) suggest that sign- and hedonic values are positively related to consumer involvement. The findings indicated very low or not existing sign- and hedonic values, as analgesics and cough and cold remedies are mostly characterized with functional benefits, rather than pleasurable benefits. The latter is typically related to a higher involvement product, whereas OTC-medicines are found to be perceived as a low involvement product.

Chapter 7 – Conclusion

The purpose of the following chapter is to summarize the clarify the findings, which will be used to provide an answer to the overall problem statement: **What are the key parameters driving Danish consumers' purchase of OTC-medicines?**

The findings reveal that the preferred distribution channels are the pharmacy and supermarket, and that the main motivations behind the consumer's choice of distribution channel are depend on the choice of distribution channel. However, the overall key drivers are *Trust*, *Selection*, *Quality*, *Convenience*, and *Price*, whereas the most significant barriers discovered include *Location*, *Price*, *Selection*, *Lack of Guidance*, and *Trust*. Consumers generally consider OTC-medicines low-involvement products. However, the notion of consumers becoming increasingly health-conscious, and consequently more involved in their health choices, combined with the findings, suggest that it may not be in the very low end of the scale. Analgesics as well as cough and cold remedies are considered different from regular low involvement products, as the OTC-medicines are related with a higher degree of psychological risk, which includes the degree of effectiveness, efficacy, and safety of the products. Hence, it is suggested that the level of involvement is placed between the routine response behavior and limited decision-making, on the involvement continuum.

The low levels of involvement associated with the purchase of OTC-medicines has an effect on the attributes considered the most important by the consumer, which are consequently of more functional rather than emotional character. The attributes considered most important by the consumer in the purchase of OTC-medicines is *availability*, *recommendations from pharmacists*, *price*, and *recommendations from family and friends*. Moreover, the attribute of price is found to be dependent on age, suggesting that older consumers are less price sensitive. Recommendations from family and friends, on the other hand, is discovered to be dependent on gender, suggesting that women tend to value perceive higher importance in recommendations from close relations compared to men.

It is found that the level of involvement, in regard to OTC-medicines, tends to depend on the perceived risk experienced by the consumer. The findings reveal that the female interviewees tend to perceive a higher risk in the purchase of analgesics and cough and cold remedies, and consequently demonstrates a higher level of involvement than the male interviewees. Additionally, the thesis supports previous research in the finding that brand awareness plays a significant role in the purchase of low-involvement products. Also, the findings indicate a support of the theory arguing that consumers tend to use brand awareness as a heuristic when purchasing low involvement products. The qualitative findings revealed a high brand awareness of Panodil and Strepsils, and in this way support the findings of the online survey, conducted in the quantitative phase of the study.

Chapter 8 – Limitations & Future Research

The purpose with this chapter is to critically reflect on the limitations of the thesis, as well as provide suggestions for future research.

8.1 Limitations

The thesis is subject to several limitations and the purpose with this section is to present an overview of the identified limitations, as well as assess the impact the limitations has on the overall findings and conclusions of the study.

The non-probability sampling method as well as the sample size of the survey data are identified as limitations of the study. The researcher's use of the non-probability sampling method, convenience sampling, has a negative effect on the generalizability of the results, due to the fact that it may have resulted in an under- and overrepresentation different sub-groups in the sample. The sampling method in combination with the relatively small sample size (N = 126), has the consequence of weakening the external validity of the results. The use of a probability sampling method and collection of a larger sample would result in a stronger external validity, due to fewer sample biases. However, this would require more time and resources.

The biases associated with conducting interviews over Skype, such as the lack of determining the body language and facial expressions of the interviewees, is considered a limitation to the study as well. This could only have been prevented by conducting the interviews in person, which was not possible due to CBS's communication regarding master thesis and lockdown during covid-19 (appendix). Although a lot of effort was put in translating the exact meaning of the interviewees' quotations, used to highlight significant points in the analysis, the researcher argues that there is a possibility of meaning being lost in the translation from Danish to English. Additionally, the researcher moreover points out that even though the thematic analysis and coding was revised numerous times, some codes might have been overlooked. Hence, the codes may be biased by the researcher's subjective interpretations, which could only be avoided if the data was analyzed from several perspectives. Other limitations identified might include time and financial constraints.

8.2 Future Research

The overall purpose of the thesis is to study the key parameters driving Danish consumers' purchase of OTC-medicines, specifically within the categories of analgesics and cough and cold remedies. The theoretical frame of the thesis focuses on how brand awareness and consumer involvement influence the decision-making process when purchasing OTC-medicines. In order to increase generalizability of the data, future research

should collect a bigger sample of respondents. Also, it could be interesting to address other categories within OTC-medicines, to see if there are differences in the drivers within these categories.

Future research could extend the study to include other parts of Aaker's (1996) Brand Equity model, such as brand loyalty, perceived quality, brand associations, and other proprietary assets. Additionally, future research could employ focus groups instead of in-depth interviews in the qualitative phase of the data collection, to see if the group dynamics would have an effect on the discovered drivers and barriers when purchasing OTC-medicines. However, the researcher speculates that the group dynamic of focus groups may influence the participants' motivation to answer with the same level of honesty as the researcher experienced in the in-depth interviews.

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10 Appendices

See attached file.