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THE IMPACT OF INDUSTRY CHANGES ON THE MARKETING AND SALES OF MEDICINES

The Finnish perspective

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International Business
Bachelor's Thesis
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ABSTRACT OF
BACHELOR'S THESIS

Author: Tiia Rontu
Title of thesis: The Impact of the Industry Changes on the Sales and Marketing of Medicines

Date: 13 April 2017
Degree: Bachelor of Science in Economics and Business Administration
Supervisor: Susan Grinsted

Objectives

The main objectives of this study were to find out the changes that have taken place in the Finnish pharmaceutical market over the last 10-15 years, the main marketing techniques and channels used for medicines in the Finnish market and – ultimately – to explore if these changes have made the pharmaceutical companies to change their current marketing techniques or adopt new ones.

Summary

The pharmaceutical industry is going through radical changes in the 21st century. Among these changes are the decline in the amount of new drug development, the generic drugs entering the market, changing regulatory environment and the emerging new markets for drugs. In this thesis, qualitative interviews were conducted with pharmaceutical companies and a pharmacist to meet the objectives stated above.

Conclusions

The research showed that in the Finnish market the changes which have had the most impact on pharmaceutical companies are the increasing industry regulation, the generic entrance and the digitalization of the marketing channels. Due to these changes, companies increasingly put emphasis on maintaining relationships to practitioners and internet and social media in marketing.

Key words: *pharmaceutical industry, pharmaceutical marketing*

Language: English

Grade:

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1. INTRODUCTION

Staying healthy is one of the grounding needs of all living things. This makes pharmaceutical industry one that is fairly sure to remain profitable since people are always willing to spend money on their health. This is also a reason that makes various stakeholders – society, pharmaceutical companies, doctors, pharmacists, customers – interested in the industry. Changes facing the industry regard several entities economically but also affect social welfare and people's general wellbeing.

As the industry is about making profit with people's wellbeing, the marketing of pharmaceutical products can be ethically questionable. The changes facing the industry might complicate the profit-making of pharmaceutical companies: thus, it is important to investigate whether they change their marketing and sales strategies and the impact they have on the customers. This study examines the changes that have taken place in the pharmaceutical industry within the last 10-15 years and how they have affected the marketing strategies of the pharmaceutical companies operating in the Finnish market. Next the background of the topic will be introduced more thoroughly, followed by introduction to the research problem, questions and objectives behind this study.

1.1. Background

The pharmaceutical industry is a unique field of business for three reasons. Firstly, it deals with people's well-being. This relates social aspects to it. This leads to the second unique issue about the industry which is the exceptional regulation that surrounds its business environment (Pharma Industry Finland Code of Ethics, 2017, Blumenthal, 2004). Finally, the consumer preferences are not formed by taste but consumers' physical needs. This makes the industry especially research intensive as the companies ought to constantly come up with new innovations in order to keep up with the competition (Wagner & Wakeman, 2016). Ultimately the nature of the industry is summed up in the notion that the consumer is not capable of assessing the products sold by the pharmaceutical companies. This puts them in a unique position in the sense

that they are dependent on the information which they receive from the pharmaceutical companies, doctors and pharmacists.

The research intensity of the pharmaceutical industry leads to it being highly patent-oriented. The patents filed for drugs usually last for 20 years (Budish, Roin & Williams, n.d). This means that the patents which have been filed for the traditional blockbuster medicines in the past are starting to expire in the course of the 21st century. This is only the tip of the ice berg in a discussion of the many changes that have taken place and are taking place within the industry during this decade. What derives from this are the generic drugs' market entry and the declining amount of new innovations as there is only a limited amount of new raw materials for medicines and they have mostly been discovered.

Finally, pharmaceutical marketing is a highly debated matter since there lies an ethical dilemma. In Finland, The Pharmaceutical Industry Finland Code of Ethics sets the limits for pharmaceutical marketing. The ground rule is that it is not allowed to market prescription medicines directly to the consumers (Pharmaceutical Industry Finland, 2017). Yet the marketing of prescription medicines to prescribing entities poses a conflict of interest as the doctors' primary concern is the patients' health while the pharmaceutical companies strive to sell their product in order to make profit (Lukkari & Parvinen, 2008; Blumenthal, 2004).

1.2. Research Problem

The pharmaceutical industry is going through radical changes in the 21st century. The need for new antibiotics is rapidly increasing, patents for old blockbuster medicines are expiring and generic versions are entering the market. At the same time the industry environment is increasingly regulated. Research is required to assess the impact on the sales and marketing techniques of pharmaceutical companies which expect a return for the large sums they use in marketing their products to doctors, pharmacists and customers.

1.3. Research Questions

The research questions underlying this study are the following:

1. *What changes have been seen in the Finnish market over the last 10-15 years?*
2. *What are the main marketing channels and techniques for medicines used by pharmaceutical companies in the Finnish market?*
3. *Have the pharmaceutical companies changed their marketing practices or adopted new ones due to industry changes?*

1.4. Research Objectives

Ultimately, this study aims at achieving the following objectives at the end of this thesis.

1. *To find out which of the industry changes that were recognized by the previous literature were also recognized by the companies operating in the Finnish market.*
2. *To determine the main marketing methods for prescription and self-care medicines after the industry changes.*
3. *To explore if the industry changes have made the pharmaceutical companies in the Finnish market to change their marketing practices or adopt new ones.*

Extensive literature can be found on the issue of pharmaceutical marketing. However, sufficient research has not been made on the Finnish market. To summarize the first chapter, this study aims at contributing to the existing literature in two ways. Firstly, the research maps the Finnish market by finding out which of the changes occurring in the global market and identified by the literature can be seen in the Finnish market. Secondly, the research aims at exploring the marketing strategies of the pharmaceutical companies operating in the Finnish market. Not until after this initial screening is it possible to meet the above mentioned objectives of this thesis. Next the discussion will move on to the existing literature on the subject.

2. LITERATURE REVIEW

2.1. Introduction

This literature review aims at developing a conceptual framework for clarifying the changes which have occurred within the last 10 years in the pharmaceutical industry and their impact on the marketing and sales of pharmaceuticals. The literature review will begin by discussing the four key changes that have taken place in the pharmaceutical industry over the last decade: decline in discovery, approval and marketing of new chemical entities, the generic drugs entering the market, changing regulation and the emerging markets. As the industry concerns several different entities – consumers, general practitioners, pharmaceutical companies and institutions – it is crucial to investigate the existing literature on these entities in order to understand the effects of these above mentioned changes. Thus, the literature review will address each of these groups before clarifying the current sales and marketing practices used by the pharmaceutical companies. These practices vary somewhat between prescription and non-prescription medicines which is why they are discussed separately in this literature review. Finally, the literature review will conclude by presenting a conceptual framework on the impact of industry changes on the sales and marketing of pharmaceutical products and different entities in this phenomenon.

This thesis focuses on the Finnish pharmaceutical market. Nonetheless, there are two reasons why international sources comprise the bulk of this literature review. Firstly, Finland is a part of the European Union (EU) which makes it subject to changes in the European market and legislation. Secondly, as it is a relatively small market only a limited amount of literature can be found on the Finnish market. In addition, inspecting the global trends helps to put the thesis in a wider context.

2.2. Changes in the industry

2.2.1. Decline in discovery, approval and marketing of new chemical entities

New chemical entities (NCEs) can be defined as the compounds emerging from new drug discovery (Baines, 2010). In order to maintain economic growth, it is crucial for pharmaceutical industry to actively engage in new drug development. It is an industry driven by high research and development intensity. (Wagner & Wakeman, 2016). Being such an important aspect of the industry, it remains a popular field of study among the industry scholars; thus, extensive research and literature can be found on pharmaceutical research and development (R&D). Hashimoto and Haneda (2008) describe R&D as a stage prior to production, claiming it to be as important as the production itself. Becker and Lillemark (2006) describe pharmaceutical industry as a technology driven sector, offering a linear model for the industry new product development where R&D develops new products and hands them to marketing – creating an environment of close collaboration between natural sciences and business.

Over the last decade, however, the industry has experienced a decline in the amount of NCEs (Hashimoto & Haneda, 2008; Mannching, 2015; Gautam, 2016). This results in fewer blockbuster medicines making it to the market, potentially causing issues for the companies in the industry. Indeed, Baines (2010) states that the value of these new launches is significantly less then when the bulk of pharmaceutical companies' revenues were comprised by blockbuster medicines that caused significant increase to the revenue. He presents two main reasons for this: the increased scrutiny and safety standards from the Food and Drug administrations (FDA) and low success in creating new medicines. These reasons will be further discussed in the following paragraphs, followed by discussion about the cost of pharmaceutical R&D. As patents are an important aspect of new product development in the pharmaceutical industry, this section of the literature review will end with discussion on literature concerning patents and finally a concluding paragraph with some suggestions on how to address these issues drawn from the literature.

The industry regulation has become stricter both globally and in the Finnish market. In Finland, this shows as the reference price system established in 2009, the generic substitution launched in 2003 and some changes in the reimbursement system

(Lääketeollisuus, 2017). Globally the FDAs' increased scrutiny and safety standards concerning drugs has led to limited approval of NCEs. Nonetheless, Haley & Haley (2012) question this notion, stating that is difficult to assess the real impact of regulatory burdens on the changes in R&D costs over time. It can be said that the impact of regulation on companies' R&D remains controversial. Yet Haley and Haley (2012) present an interesting example from India, an emerging market for the industry, that describes the effect of strict regulation on the emerge of NCEs. Under the process-patent regime, from 1972 to 2004, India grew to be the world's fourth largest country measured by the size of its pharmaceutical industry. Process-patent regime refers to regulation where patents are only allowed for the processes of new drug development but not the actual products. After 2004, when the country shifted to product-patent regime and by consequence from process to product research, there is evidence of decreased domestic innovation (Haley & Haley, 2012). This is an example of the type of regulation that might be harmful for new drug development.

Literature shows that R&D efficiency has globally decreased in pharma industry. As the process of new drug development is highly costly and demands big investments from the pharmaceutical companies, the industry is labelled by great financial risk. It is natural for many development projects to result in failure; as this occurs the greater the initial investment for R&D, the bigger impact these unsuccessful products have on the successful products (DiMasi, Grabowski, Hansen, 2016). This results in firms considering their R&D projects with more caution and - ultimately - engaging in less new drug discovery. Interestingly, Hashimoto and Haneda (2008) present an example of the Japanese pharmaceutical industry where neither diffusion nor innovation of R&D technology has occurred over the years 1983-1992. This means R&D efficiency loss for the decade; yet firms continuously engage in R&D expenditure. It seems that the companies have found another meaning of R&D expenditure beside R&D itself, which shows how deeply enrooted R&D is for the industry. Yet Hashimoto and Haneda (2008) state that sufficient evaluation of firms' R&D evaluation has not been made.

As the industry is highly R&D intensive, the cost of new drug development is an issue that is of importance to various entities, especially the drug companies engaging in R&D. Studies show that developing new drugs is a relatively expensive process and that the research-active – that is, originator companies – spend approximately 17 percent of the revenues they gain from prescription drugs on R&D (Wagner &

Wakeman, 2016). Indeed, Becker and Lillemark (2006) state that high R&D to sales ratio is typical for pharma industry as it is a highly technology driven sector. They also note that the expensiveness of industry R&D has led to debates on prescription drug prices, importation of drugs, regulatory policies and barriers to entry. The general estimation of new drug development seems to be little over $800 million per one NCE (Wagner & Wakeman, 2016; Adams & Brantner, 2006). However, Adams & Brantner (2006) state $800 million is an underestimation and that there is variation in estimated drug costs. Similarly, according to Dimasi, Grabowski and Hansen (2016) the social costs of developing new compounds are difficult to measure. Finally, industrial R&D also includes a substantial financial risk since many development projects result in failure (DiMasi, Grabowski & Hansen, 2016). Therefore, it can be stated that the cost of R&D in the pharma industry remains a controversial issue.

The success of new products emerging from industry R&D is highly dependent on patents (Wagner & Wakeman, 2016). Therefore, they should also be examined while discussing the industry R&D. Patents can be defined as a period of market exclusivity for innovations. In the case of pharmaceutics this is often 20 years. (Budish, Roin & Williams, n.d.). Already in the 1780s John Locke has referred to patents as the “fruits of labor”, causing controversy whether this means the processes or the products of labor (Haley & Haley, 2012). There has also been discussion whether patents provide enough protection for the products as companies seem to view secrecy as an even more important factor for their products’ success. It has, however, been stated that the companies ought to protect their production with patents rather than the end products as this kind of “product-patent regime” might reduce innovation (Haley & Haley, 2012). This supports the notion of John Locke’s statement referring to the processes of labor.

2.2.2. Market entry of generic drugs

Generic drugs can be defined as the low-cost alternatives for the registered brand drugs. Over the last decade generic drugs have entered pharmaceutical market with force, causing a substantial drop in medicine prices (Baines, 2010; Mannching, 2015; Wagner & Wakeman, 2016; Lukkari & Parvinen, 2008; Lääketeollisuus, 2017). There are two reasons for this: the expiring of patents and the economic downturn. Firstly, the expiration of the patents of blockbuster medicines enables generic drug makers to

undercut the branded products' profit margin with 6 months. Secondly, together with the patent expiration the economic downturn leads to an increase in generic sales and dramatic drop in medicine prices (Baines, 2010; Mannching, 2015; Lääketeollisuus, 2017). The estimation of this increase was from $12 billion to $18 billion between the years 2008 and 2012 (Baines, 2010). However, Lukkari & Parvinen (2008) claim that this phenomenon is hindered in the Finnish market due to some cognitive institutions that make the prescribers maintain their current prescribing patterns, protecting the branded drugs (Lukkari & Parvinen, 2008). This can be questioned given the notion that a reference price system was introduced in Finland in 2009 to enhance generic substition (Lääketeollisuus, 2017).

2.2.3. Regulatory changes

Regulatory changes have occurred both internationally and in Finland when it comes to the pharmaceutical industry (Lääketeollisuus, 2017; Baines, 2010; Gautam, 2016). As this thesis focuses on the Finnish pharmaceutical market, mainly the regulatory issues relevant to this market will be addressed in this literature review. International market will also be touched upon.

Lukkari and Parvinen (2008) define institutional environment as the "process, mechanisms and channels of influence that relate to legitimacy in a particular market". Accordingly, they define regulating as the "evident interaction with regulatory institutions that exist to ensure the stability, order and continuity and social welfare". Both of these terms are closely linked to the Finnish drug market which is a typical European market; it is defined by tight regulation, strong normative order in terms of professions, trade unions and patent associations and, lastly, slowly changing actor cognitions. Therefore, for companies operating in Finland the relationships with existing institutions are a crucial part of the business and should to be the basis for building customer portfolios (Lukkari & Parvinen, 2008).

Literature shows that the current institutional context of the Finnish drug market is fairly dynamic (Lukkari & Parvinen, 2008; Lääketeollisuus, 2017). Over the recent years there have occurred various institutional disruptions in Finland. For example, establishment of the European Medicines Agency, The European Economic Area

agreement have taken place within the last decade, affecting the local business network, its wholesale and factory licenses, provision of medical information and its marketing authorization processes. This is due to their power of imposing direct constraints to the industry. A reference price system was also introduced in 2009 in order to enhance generic substitution (Lukkari & Parvinen, 2008; Lääketeollisuus, 2017). In addition, the membership of the EU causes implications for the Finnish regulatory environment. All in all, the regulatory environment in Finland is regarded as positive since the professional associations in Finland are considered to be objective and educated. Also, new local regulations have been estimated to raise the expertise of the local institutional environment (Lukkari & Parvinen, 2008)

The industry is fairly unstable also internationally when it comes to regulation environment. For example, Baines (2010) claims that in the US the economic downturn has caused a healthcare debate due to which the pharmaceutical companies need to demonstrate the value brought to patients. Similarly, Frank and Newhouse (2008) add to this topic by presenting the issue of drug pricing in the U.S.

2.2.4. The emerging markets

In the course of the 20th century the relative importance of the developing world has grown for the industry. These “E7” countries are, according to most sources (Baines, 2010; Haley & Haley 2012; Karpagam et al., 2012), China, India, Brazil, Russia, Turkey, Indonesia and Mexico. All of these countries have the following things in common: they are non-industrialized yet have potential for growth (Baines, 2010). Three primary reasons for this emergence of new markets can be found from the literature as follows. Firstly, historically the US market has been the largest market in the industry. However, due to the economic recession the industry has faced years of slow growth in the US market and has had to look for new emerging markets for production and purchase power. Secondly, these emerging markets have the following competitive advantages: their relative costs for R&D and for human resources are low and they have a strong demand for new medicines (Haley & Haley, 2012; Gautam, 2016). Given the industry’s need for new markets, these are substantial advantages. Thirdly, less-developed countries have strong product-patent protection in the pharmaceutical industry compared to the industrialized countries (Haley and Haley,

2012). These factors create a favourable environment for new innovations and market entries (Haley & Haley, 2012; Gautam, 2016). On the other hand, Haley and Haley (2012) argue that the new regulatory environment that the developing countries have adopted hurts domestic innovation. Baines (2010) also presents the challenge this development poses for the companies as the diseases, environments and medical needs of these emerging markets are not fully understood. It can be stated that more research needs to be done to find out the implications of the emergence of the new markets for the industry and for the target countries.

2.3. Different entities concerned by the industry

2.3.1. Consumers

As the pharmaceutical industry ultimately deals with people's health and well-being, the consumers are of critical interest for the pharmaceutical industry, not only for the purpose of making profit but to ensure people's general health (Pharma Industry Finland Code of Ethics, 2017, Blumenthal, 2004). Therefore, the customers have a special relationship to the pharmaceutical companies compared to other businesses since their well-being depends on their products. Yet concerns have been raised about the pharmaceutical companies' unethical practices in marketing and selling which corrupts healthcare and – ultimately – risk the consumers' health (Blumenthal, 2004; Cornock, 2015)

2.3.2. General practitioners

The medical practitioners that are most concerned by the industry are those with the authority to prescribe or dispense medicines: doctors, dentists, veterinarians and the pharmaceutical personnel at pharmacies (Lääketeollisuus, 2017). In Finland the profession is highly valued with long traditions - these traditions include cooperation between the pharmaceutical companies and physicians' associations in the knowledge-intensive fields of critical research. Indeed, according to Lukkari and Parvinen (2008), the Finnish medical association has stated that the professions of a doctor and drug industry cannot be separated. This has been argued to result in a conflict of interest which will be further discussed in the later sections of this literature

review (Lamarche & MacKenzie, 2015; Blumenthal, 2004; Lukkari & Parvinen, 2008; Sah & Fugh-Berman, 2013). Ultimately Lukkari & Parvinen (2008) state that the legitimacy of the professional associations is a result of the prevalent situation where they are in control of the institutional information and considered the leading, objective expert organizations. This enables them to strategically influence the industry. Conversely, it can be found throughout the literature that the drug companies widely influence the doctors (Blumenthal, 2004; Lamarche & MacKenzie, 2015; Sah & Fugh-Berman, 2013). Thus the literature suggests a two-sided situation where the doctors strive to influence the drug industry and vice versa.

2.3.3. Pharmaceutical companies

The literature refers to the world's largest pharmaceutical firms in Europe and the US as “The Big Pharma” (Yaqub, 2014; Baines, 2010; Wagner & Wakeman, 2016; Lukkari & Parvinen, 2008; Rafols et al., 2014). According to the Pharmaceutical Industry Finland, (2017), the biggest pharmaceutical companies in the Finnish market are Orion Pharma, Glaxosmithkline, Pfizer, MSD, Roche, Novartis, Takeda, Sanofi, Janssen-Cilag and Ratiopharm. Rafols et al. (2014) have also in their study listed the “Big Pharma” in Europe and in USA. As they also mention Pfizer, Glaxosmithkline, Novartis and Sanofi in their investigation, it can be stated that the biggest operators in the field are dominant around the world. What is noteworthy is that more similarities can be found between the Finnish market and the European market than between the Finnish market and the US market.

2.3.4. Regulatory institutions

Medical institutions have, both internationally and in Finland, two important tasks: to produce medical information and to regulate the industry (Formoso et al, 2016; Lääketeollisuus, 2017; Lukkari & Parvinen, 2008). The critical institutions when it comes to the Finnish market are the State as the regulator and professional associations as the validating institutions (Lukkari & Parvinen, 2008). Also, the European Medicines Agency (EMEA), European Economic Area (EEA) and the EU as

they have had a strong influence on the entire medical industry and its practices (Lukkari & Parvinen, 2008; Lääketeollisuus, 2017). Furthermore, what is noteworthy about the Finnish market according to Lukkari and Parvinen (2008) is that in Finland the regulatory institutions have the power to set direct constraints to the companies.

2.4 Marketing and sales in the industry

The current marketing practices of pharmaceutics are very much dictated by the Finnish Medicines Agency, Fimea in Finland. It is the authority in charge of controlling the marketing of pharmaceuticals (Lääketeollisuus, 2017). More specifically, the Pharmaceutical Industry Finland (PIH) Code of Ethics presents detailed provisions on pharmaceutical marketing, stating the way it along with pharmaceutical information should be targeted at consumers and healthcare professionals in Finland (Lääketeollisuus, 2017). As the provisions set for the marketing of prescription-only medicine and for the marketing of self-care differ from each other, the following paragraphs will consequently discuss the literature written on the marketing of self-care products and prescription medicines separately. Literature focusing on global pharmaceutical marketing practices will also be discussed.

“A pharmaceutical company can inform consumers about various diseases and their prevention, diagnosis and treatment. The health information focused on disease awareness must guide the consumer towards additional information on health promotion and the treatment of the disease” (Pharma Industry Finland Code of Ethics, 2017).

2.4.1 Prescription-only medicines

The PIF Code of Ethics dictates that the marketing of prescription-only medicines in Finland can only be targeted at “professionals who are entitled to prescribe or dispense medicines and need pharmaceutical information in their work” (Lääketeollisuus, 2017). As stated in the paragraphs above, these professionals are doctors, dentists, veterinarians and the pharmaceutical personnel at pharmacies. Since prescription-only

medicines comprise the bulk of pharmaceutical sales – over 80% - it is an important field of business for the pharmaceutical companies (Ebeling, 2011; Lääketeollisuus, 2017). Thus extensive literature can be found on the techniques they use in marketing the prescription-only medicines to the practitioners.

Pharmaceutical companies' use of various means of social psychology to influence the health care providers has been widely recognized in the literature. These means can be divided into financial and non-financial (i.e. deference, opportunity to be revered as an expert) inducements (Sah & Fugh-Berman, 2013; Ebeling, 2011). Next both of these will be discussed in further detail, followed by discussion on the dilemma of "conflict of interest" that is mentioned several times throughout the literature.

Financial ways that the companies use to influence the physicians prescribing are gifts, sponsored research and education grants. This influencing may begin already during the education of the doctors and continue throughout their careers (Ebeling, 2011; Sah & Fugh-Berman, 2013; Blumenthal, 2004). Indeed, Blumenthal (2004) describes this interaction as "pervasive" and states that it influences negatively on the quality of health care. The physicians are mostly confident that they can objectively prescribe, yet there is evidence of the occurrence of this negative influence (Sah & Fugh-Berman, 2013; Blumenthal, 2004; Lamarche & MacKenzie, 2015). Thus, Sah & Fugh-Berman (2013) have identified the ways of denial through which the professionals remain unaware of the industry's influence. These are the following: avoiding thinking about the conflict of interest, rejecting that the industry relationships affect physician behaviour and universalizing the responsibility for problems arising from conflicts.

Similarly, Sah and Fugh-Berman (2013) have identified the principles of persuasion that the companies use to convince the physicians; the first of these, reciprocity, can be categorized as one of the financial ways. By this they refer to the obligation to help those who have helped you – in which case receiving a gift triggers such a state. This is also addressed by Blumenthal (2004) as he states that the size or importance of the gift remains insignificant in terms of the formation of a reciprocal relationship. On national level these gifts may be industry grants, on an institutional level educational grants and on an individual level fees for research or – a gift of value as negligible as a pen – to maintain the brand name in the physicians' minds and trigger reciprocity norms.

The non-financial ways that the companies use in influencing the practitioners include, for example, the possibility of being considered an expert. They can also be inspected through the principles of persuasion presented by Sah and Fugh-Berman (2013) They include commitment and consistency, social proof, liking and authority. Lukkari & Parvinen (2008) address the third principle, liking, by stating that pharmaceutical companies intentionally engage in building networks to the prescribing professionals in order to maintain favourable customer portfolios. They argue that, ultimately, this interaction between the practitioners is merely customer portfolio managing in the highly institutionalized drug market and thus requires continuous, intentional networking on behalf of the drug companies. Finally, Sah and Fugh-Berman (2013) recognize the two principles behind successful building of non-financial commitment to the pharmaceutical companies: people tend to believe messages delivered with confidence and that people anchor on initial information. The latter is supported by Lamarche's & MacKenzie's remark (2015) that only 7% of new drug info gained by practitioners comes from other sources than pharmaceutical companies.

It is crucial that the different entities gain correct pharmaceutical information which enables the correct use of medicines. It is a precondition for people's health and working capacity and, on the other hand, the best treatment practices (Lääketeollisuus, 2017; Blumenthal, 2004). Given this notion the conflict of interest deriving from the physicians' interactions with the companies is troublesome. Factors behind this conflict of interest reach beyond merely the pharmaceutical companies pursuing sales and the physicians working for the benefit of curing diseases; the government spending on drugs and the personal interests which professionals may have are also a part of this conflict (Lukkari & Parvinen, 2008; Blumenthal, 2004; Lamarche & MacKenzie, 2015). The literature presents several reasons for the existence of cognitive dissonance. Firstly, Sah and Fugh-Berman (2013) claim that the conflict of interest is due to cognitive dissonance, a discomfort that arises from conflicting beliefs and that the physicians try to avoid. On the other hand, Lukkari and Parvinen (2008) say that this is due to the intentional relationship building which the companies engage in. Both of these notions support the existence of subconscious biases that prohibit the doctors from being aware of such conflict (Sah and Fugh-Berman, 2013). Other reasons presented by Lukkari and Parvinen (2010) are the long traditions of co-operation which the pharmaceutical companies and physicians have. What should be noted is the

ultimate impact of this situation on the consumer: overuse of expensive branded drugs and potentially negatively influences on the quality of health care (Lamarche & MacKenzie, 2015; Blumenthal, 2004; Lukkari & Parvinen, 2008; Sah & Fugh-Berman, 2013).

2.4.2. Self-care medicines

In Finland the PIF Code of Ethics allows only the marketing of self-care medicines without prescription to consumers (Pharma Industry Finland Code of Ethichs, 2017). Therefore, the issue of direct-to-consumer advertising will be discussed in this section concerning non-prescription medicines. Yet what should be noted is that the global situation differs from that of the Finnish market in that the FDA has allowed direct-to-consumer advertising also for prescription pharmaceuticals already in the 1980s in the USA (Ebeling, 2011; Mihm, 2013). Globally the following trends in marketing self-care medicine can be discovered from the literature: personal selling and online marketing. In the following these will be discussed in the context of the Finnish market as well as globally.

Globally the issue of direct-to-consumer-advertising (DTC) of prescription medicines has been a highly debated matter (Mihm, 2013). Indeed, Ebeling presents that DTC is used to “brand” illnesses and promote the sales of certain drugs. Though this is not an issue in Finland, some controversial aspects can also be found from the advertising of non-prescription medicines. For example, Mihm (2013) found that there are gender related differences in companies’ direct-to-consumer marketing as women were targeted at twice the rate of males in the gender specific ads. He also identifies the two primary types of advertising appeals: informational appeals using the uniqueness of a product and emotional appeals appealing to consumer’s feelings to match their wants.

The emergence of online pharmacies has brought up the emergence of online pharmaceutical marketing, changing the world of health care by enabling the purchase of drugs without consulting a physician (Levaggi et al., 2009). There are differences in the marketing strategies of online pharmacies compared to the regular pharmacies. Firstly, they are more focused on non-prescription drugs and health foods. Secondly, the literature suggests that their marketing and pricing strategies resemble those of a

commodity market as they vary according to variety, quality and target group. They also use hot sales lists, free delivery and other unusual means for regular pharmacies in their marketing (Su et al., 2013; Levaggi et al., 2009). While providing the various people with access to medicine round the world, the issues brought by online pharmacies have also been addressed. According to Levaggi et al. (2009) selling drugs via internet can turn into public health risk since it is an unregulated market and encourages the misuse of drugs. Here it should be noted that even if most online pharmacies did not require prescriptions, within the EU article 30 justifies a national prohibition on the "sale by mail order of medical products subject to prescription" (Levaggi et al., 2009).

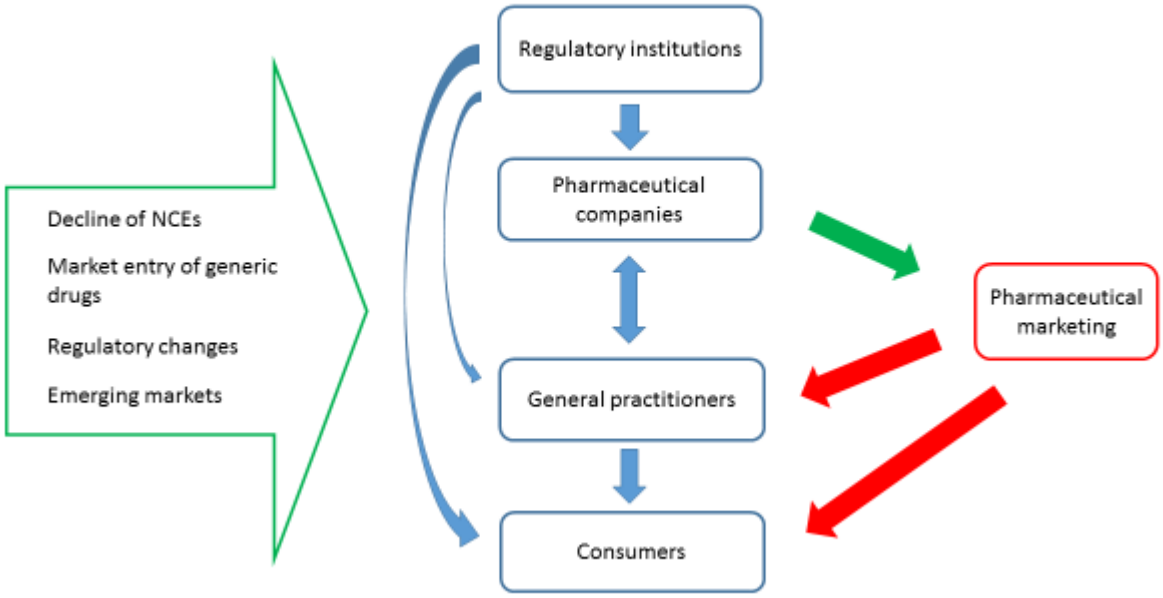
Due to the nature of the industry there are certain challenges in the marketing of pharmaceuticals. Firstly, there are certain demands for the minimum information that should be present in an advertisement of a medicine. In Finland the PIH Code of Ethics dictates this (Pharmaceutical Industry Finland Code of Ethics, 2017). Globally this is done by the FDA. The challenge of direct-to-consumer ads is that they should provide adequate information in a short period of time (Su et al, 2013). In addition, the R&D intensity of the industry brings some challenges for the marketing of medicines (Becker & Lillemark, 2006; Wagner & Wakeman, 2016). According to Becker and Lillemark (2006) it is a challenge to integrate the traditional marketing role to pharmaceuticals since the consumer needs are not influenced by taste - thus discovery is merely creating new innovations. Also the speed of product commercialization is slow due to obligatory clinical trials (Wagner & Wakeman, 2016). Finally, patents cause issues in the marketing of medicines due to the long time lag between commercialization and filing patents; as they must be filed at the time of the innovation, the effective time of marketing while the patent is still effective often remains short (Wagner & Wakeman, 2016; Budish, Roin & Williams, n.d).

2.4. Conceptual Framework

It can be concluded from the literature that four major changes have occurred in the pharmaceutical industry within the last ten years. This has an impact on the different entities on the industry: regulatory institutions, general practitioners, consumers and

the pharmaceutical companies conducting pharmaceutical marketing. The situation can be portrayed in a conceptual framework shown in Figure 1.

Figure 1: Conceptual Framework



Firstly, the four changes – decline of NCEs, market entry of generic drugs, regulatory changes and the new emerging markets – have changed the industry environment, affecting the different entities in the industry. This can be seen from the large green arrow. Also, the relationships between these entities can be seen from the framework. The regulatory institutions set regulations, thus exerting their power over the pharmaceutical companies. Moreover, the regulations affect the general practitioners as they are guidelines for their work. Another important task these institutions have is to convey trustworthy medical information to the consumers. A noteworthy relationship in this framework is the reciprocal relationship of the pharmaceutical companies and the general practitioners as they engage in two-way influencing with each other. Ultimately, the consumers are influenced by the general practitioners as they seek medical advice and guidance from them. The small green arrow in the framework portrays the new output that the companies produce after these industry changes, the pharmaceutical marketing. This marketing is directed at both the general practitioners and the consumers.

3. METHODOLOGY

This section of the thesis describes the methodology used for conducting the research. Methodology is the theory of how research is intended to be undertaken in a study – thus it is a crucial part to understand the research for both the researcher and the reader of the study (Saunders, Lewis and Thornhill, n.d.). It is important in terms of understanding why a certain approach has been chosen for the research as well as the objectives of the research.

Next the research approach - the ideology behind researching the chosen topic – will be discussed. The research objectives underlying the chosen research approach will also be addressed. This will be followed by discussion on the actual data collection method. For the sake of clarity, it should be mentioned here that the term “method” is used when referring to the techniques used for gathering and analyzing data as opposed to the term “methodology” which was defined in the previous paragraph (Saunders, Lewis and Thornhill, n.d).

3.1. Research approach

The first decision when developing the research approach for this study was to decide whether to use merely secondary data for the research or engage in primary data gathering. Gathering secondary data via exploring the written literature is a crucial part of every research. Indeed, quoting Lukkari & Parvinen (2008): “Pure induction without theoretical reference might prevent researchers from benefiting from previous work.” Realizing the importance of the literature survey, the nature of this thesis also called for primary data collection since it intends not only to find out *how* marketing is done but also *why* and what are the underlying phenomena behind this. Moreover, the Finnish market is such a small market that sufficient literature from its current marketing procedures to conduct entirely secondary research could not be found. Thus I chose to first thoroughly engage in literature survey and after that secondary data gathering.

Consequently, deciding whether to use quantitative or qualitative data in this research followed this decision of data gathering method. From these two, the qualitative basis was chosen for the following reasons. Firstly, as this thesis focuses on studying the marketing practices of a specific field of business, its theories originate mainly from the field of marketing. They are often researched with the means of qualitative methods. Qualitative methods refer to methods where images and words are used in explaining situations (Carcary, 2009). Moreover, pharmaceutical marketing is a field of marketing that should be considered separately from other marketing in business. This is due to the strict institutional regulation that dictates the industry policies. This makes its environment unique: thus it is more convenient to be measured via qualitative research methods as they are flexible and sensitive to the context (Carcary, 2009).

From the large pool of qualitative data collection methods, interviews were chosen for the primary data collection method of this thesis. This is due to the nature of the study that is rather an exploratory one - a study intended to find out "what is happening, seeking new insights and to assess phenomena in a new light". That is, it aims at establishing causal relationships between variables (Saunders, Lewis and Thornhill, n.d). This thesis aims at explaining the relationship between the current pharmaceutical marketing strategies and the changes taking place in the industry. As Saunders et al. (n.d.) suggest, "interviewing experts in the subjects" is a convenient way for conducting an exploratory research. In the context of this thesis it was most suitable to choose certain corporate elites – the marketing managers of pharmaceutical companies – to be interviewed since they are experts to tell about their company's marketing procedures.

The benefits of personal interviews over, for example, filling a questionnaire, has been widely recognized (Kothari, 2014; Saunders et al, n.d.). The benefits that contributed to the choice of personal interviews for this thesis are the following. Firstly, this allows the interviewer to have complete control over who answers the questions (Saunders et al, n.d.). Secondly, personal interviews enable the collection of more information that is of greater depth. Thirdly, it enables spontaneous reactions as opposed to mailed questionnaire (Kothari, 2014). Moreover, it has been found that managers prefer being personally interviewed over filling a survey. In addition to the convenience of personal interview, in person it is easier for them to receive personal assurance about the

confidentiality of the information (Saunders et al, n.d.). This latter point is essential in the context of the pharmaceutical industry as it is very strictly regulated.

More specifically, semi-structured interview was chosen for this research. A structured interview involves “the use of a set of predetermined questions and of highly standardized techniques of recording” (Kothari, 2014). Though a sort of structure was needed for the interviews to reassure the gathering of relevant information, this specific structuring did not suit the purpose of this thesis for two reasons. Firstly, using strictly predetermined questions would have hindered the interviewees from engaging in free discussion on the topic. To gain an in-depth understanding on the field it was crucial that the interviewees could add points that they considered worth mentioning. In addition, “highly standardized techniques of recording” could not be used for this research. Thus, semi-structured interview was chosen for the research approach of this study.

3.2. Data collection

The sole primary data collection method for this thesis was interviews. The data was drawn from five interviews in total: one pharmacist, two marketing managers in charge of self-care medicine and two marketing managers in charge of prescription-only medicine. The interviewees were chosen using the following criteria.

Firstly, within the time limits set for this thesis any number of interviews was deemed to be small; a better outcome could be achieved by concentrating on either the conducting or the receiving end of the marketing. In this thesis, the conducting party was chosen. Hence the aim was to interview the entities conducting pharmaceutical marketing – the pharmaceutical companies. As this thesis focuses on the Finnish market, the primary criteria for choosing the companies was that they were reasonably big companies and operated in the Finnish market. This is to ensure the gathering of relevant data from the Finnish market. An important notion here is that the strict industry regulation sets very different criteria for the marketing of self-care medicines as opposed to the prescription medicine. To gain full understanding of the pharmaceutical marketing it was important to interview experts of both fields.

Therefore, both marketing managers of self-care and prescription medicines were contacted.

Secondly, while concentrating on the companies' perspective, to gain a full understanding of the industry an interview from the target of the marketing was also in order. As stated in the literature review, the options for this were doctors and pharmacists. Even though a doctor was also considered to be interviewed for this thesis, it soon became clear that in Finland many private chains regulate the pharmaceutical marketing to doctors. Thus, within the time restrictions it was easier to find a pharmacist to interview. A pharmacist in charge of a pharmacy that is a member of a big pharmaceutical chain in Finland was chosen to be interviewed. Table 1 summarizes information on the contacted companies and the interviewees.

Table 1: Interviewees

Interviewee	Company	Core operations	Operating area	Headquarters
Marketing director of prescription medicines	Company A	Drug research and development.	Undisclosed	Undisclosed
Marketing director of self-care products				
Marketing director of prescription medicines	Company B	Drug development and testing for people and animals.	100 countries	In Espoo, Finland
Marketing director of self-care medicines				
Pharmacist	Company C	Selling medicines and self-care products	-	-

The data collection phase included the following steps. It began with contacting the chosen companies. All the interviewees were approached the same way: they were first sent an email followed by a phone call to ensure the response and reaching the

right person. However, as company B did not have the contact information of its marketing management on its Facebook site, the contacting process proceeded slightly differently as it happened via the company's communications manager. Also, the pharmacist was contacted merely via phone call. After getting responses from all the interviewees a date and time for the personal interview was set. All the interviews were conducted in person, using a mobile device for the recording. The aim was to create a most natural, relaxed environment for the interview to ensure that the interviewees could pursue also topics other than those set by the initial structure of the interview. To ensure this it was mentioned in the beginning of the interview.

Due to the industry's regulated nature the pharmaceutical companies demanded to see the questions beforehand. This had to be taken into consideration in the data analysis part of this thesis as that was not the case with the interview with the pharmacist. Yet this thesis aims at drawing a thorough image of the industry's marketing procedures based on the interviews. In the light of this notion the ability to directly compare is not as relevant as the ability to draw new insights from the interviews. Thus, it can be said that the data is equally usable.

The limitations of this research can be summed up in four bullet points as follows:

- Limited time for data collection
- Relatively small total number of interviews
- Lack of an interview with a prescribing doctor due to the time limit
- Some interviewees seeing the questions beforehand

3.3. Data analysis

The data analysis part of this thesis consisted of two main phases. First the interviews were listened to and transcribed. Next the main points were found from each interview. This was done as the basis of the findings chapter. After this, the main points were grouped to find differences and similarities among the interviews. Finally, these differences and similarities were analyzed using the literature review as well as the conceptual framework of this thesis to conduct the chapter on analysis. This analysis was used to form the final conclusions of this thesis.

4. FINDINGS

In this section the main findings from the primary research of this thesis – 5 interviews with four from the industry aspect and one from a pharmacist – will be discussed. The findings are organized utilizing the features of the conceptual framework as sub-topics. These consist of two bigger concepts: the changes in the industry and the current marketing practices of medicines. The empirical material is summarized accompanied by direct quotations from the interviews; this ensures the capturing of the original message of the interviewee.

4.1. Changes in the industry

What could be drawn from the interviews is that major changes have taken place in the industry within the last 10 years which have had an impact on the entities operating in the Finnish market. These changes will be discussed in the next paragraphs, following the themes which occurred in the literature review.

There are certain issues that should be noted with regard to the findings related to the industry changes. Firstly, ten years is a long time; some of the interviewees had not been within the company long enough to be able to assess some of the changes which occurred within these years. Secondly, the interviewees from the drug companies were responsible for the marketing of their companies' products. Therefore, certain topics inevitably fell out of their responsibility areas which meant that they could not respond thoroughly to some of the questions.

4.1.1. Decline in discovery, approval and marketing of new chemical entities

When it comes to the discovery of new chemical entities (NCEs), what stood out from the interviews is that both the medical companies seemed to hold creating new innovations in great value. All their interviewees stated that creating new innovations is the core of their business. More specifically, innovating new medicines seemed to be their primary concern.

The common ground among the interviewees was also that they did not seem to notice any decline in the amount of new product discovery. Indeed, according to the pharmacist, new products came in every week. In addition, interviewees from company A stated that in the recent years the amount of new product launches has rather been in an increase. The common opinion was that if there was any decline it was due to mere seasonal changes.

What is noteworthy here is that the interviewees seemed to have considered the whole product range – the prescription- and self-care medicines as well as self-care products when answering this question of the recent trends in new medicine launches. The situation is different when considering only the NCEs since discovering completely new medicines is rare. Indeed, a quote from an interviewee from Company B summarizes the situation:

"Recent years have been good in terms of product launches – we have had approximately ten new product launches within the last five years. Though now that I think about the question, approximately 30% of these launces have been medicines, only 1-3 new medicines in five years, that is…"

In addition, the Finnish market is strictly regulated due to which it is rather complex to launch a new medicine. Both companies A and B noted that the product launches are entirely dependent on which medicines are granted the sales permission. The interviewee from the self-care medicine side in company B described the situation as follows:

"I think the trend is that the amount [of NCEs] is decreasing... And it's the same thing for the prescription-medicines; the ones that have gone generic have gone generic and the next round is coming in 2000-something when certain medicines begin to go generic. Be that as it may, there are not many medicines left that have patents."

4.1.2. Market entry of generic drugs

All the interviewees recognized the impact that the generic drugs' market entry has had on their pricing. However, they seemed to consider this development as a natural consequence from the strict market regulation. All the interviewees from the drug companies agreed that the generic drug entrance has not changed their pricing strategies but that there is rather a causal connection between the generic drug

entrance and the overall decline in prices. As described by an interviewee from Company B:

"A product comes in that has not had the research and development cost and all the products' prices go down. That's part of the business."

Also, the common opinion of the drug companies was that they do not focus on producing the generics but that their focus is on delivering new innovations. They also highlighted that once their own product's patent expires they strive to make their own alternative for this product in the generic side. Here the contrast should be noted between the statements of the drug companies' representatives and the statements of the pharmacist; whereas the drug companies highlighted their focus on the original innovations, according to the pharmacist these companies do make "copies" of other companies' medicines also.

What is most noteworthy about the interviews is that neither of the drug companies considered the generic entrance as a threat to their core business – the original innovations. Interviewee from company B even stated that competition is always good. What arose from the interviews is that the market is fairly saturated in Finland in the sense there is a vast number of products in all product categories. An interviewee from Company B recognized this by stating that it is challenging for a new company to enter the market in the current circumstances. A quote from the pharmacist clarifies the situation from the pharmacists' end:

"We have pretty much stuck to these companies as there is no reason to take more from another company; there is limited amount of space and if we take something from a company it demands its own storage space."

As the interviewed drug companies are big operators in the Finnish market with long traditions, they do not have a reason to regard the generic entrance as a threat to their business.

4.1.3. Regulatory changes

All the interviewees recognized the highly regulated environment of the industry. The following quote from the pharmacist describes the situation well:

"You always come across regulation when you mention the word drug."

However, both the pharmacist and an interviewee from company B's prescription side recognized that this is due to the fact that consumer is not qualified for assessing prescription medicine and thus regulation is in order. Therefore, they regarded regulation as a positive thing.

The biggest regulatory change that the companies recognized was the reference price system. An interviewee from Company A even described the impact of the reference price system on their business as "dramatic". This is mainly in the prescription side. According to the interviewee from Company B there are fewer and fewer branded products as they become interchangeable.

In contrast, the interviewed drug companies did not seem to recall that the membership of EU has had a big impact on their business. Both the drug companies did recognize the impact of the EU harmonizing the legislation of its member countries; however, from the Finnish perspective they did not think this has had a big impact on the market environment. An interviewee from Company B recognized the impact of the EU with two main points. Firstly, the free movement of products that brings with it international competition. Secondly, the centralized marketing authorization from EU. The main impact of the EU is that nowadays when a new product is launched, a centralized marketing authorization is pursued that comprises the entire EU area. He too, however, regarded the impact of these two as fairly small. From the self-care medicine side of Company B the interviewee stated that it becomes costly when the EU unifies the legislation of the member countries as this requires changes in, for example, packaging.

Overall, the interviewees thought that over the last 10 years the regulation has become stricter and The Finnish Pharmaceutical Industry Code of Ethics has become even more specific.

4.1.4. The emerging markets

When asked about the manufacturing locations of their products, all the interviewees from drug companies were rather hesitant in answering. The interviewees from Company A named Europe and the USA as some of their manufacturing locations but could not specify the locations due to the large amount of their manufacturing facilities

around the world. As the reason for the multiple production locations they said that a back-up alternative is needed in case there occurs problems in the production or supply chain in one country. Company B, however, highlighted their domestic production as they have manufacturing facilities also in Finland. The interviewee also added that the company does have some production abroad but that the Company does not further discuss the location of this production.

Furthermore, the interviewees from the drug companies were unable to specify whether there has occurred any trends in new manufacturing facilities.

"I cannot answer this since we are only told where the products come from. Though I don't think any major changes have occurred."

The pharmacist noted that drug companies actively follow the global situation of the manufacturing locations. In addition, according to the pharmacist, domestic production in Finland is these days so small that it is nearly non-existent. She also mentioned the trend of centralizing production to certain countries that, for example, have the needed raw ingredients – such as India.

4.2. Marketing and sales in the industry

The main theme that was present in all the statements about pharmaceutical marketing was the strict regulation. The ground rule is that The Pharmaceutical Industry Finland Code of Ethics sets the criteria for pharmaceutical marketing which is monitored by the Supervisory Commission for the Marketing of Medicinal Products. This regulation sets very different criteria for the marketing of self-care medicines and the prescription medicines. Thus, the findings concerning each of these will also be discussed separately, starting with the prescription medicines and then moving on to the findings about the marketing of self-care medicines.

When it comes to the importance of prescription and self-care medicines, somewhat differing statements were made by the pharmaceutical companies. On one hand, company B stated that both are financially equally important. On the other hand - as creating new innovations for curing diseases was named as the primary importance for both companies - the prescription medicines were named important prescription-wise. The companies were also somewhat reluctant in stating which takes more of their

marketing budget; it was merely revealed that traditional medias are costly marketing channels and they are only used for the marketing of self-care medicines.

4.2.1. Prescription-only medicines

Prescription medicines cannot be marketed to the consumer under any circumstances. This forms the foundation for the marketing of prescription medicines which was also apparent in the interviews. When asked about the main marketing channels for prescription medicines, all the interviewees mentioned this as the most important issue when choosing the marketing channels for prescription medicines; they must be chosen carefully so that they cannot reach the consumer even by accident.

With this primary condition in mind, various marketing channels were mentioned by the interviewees. All the interviewees mentioned professional training provided by the pharmaceutical companies as an important part of the companies' marketing mix. Another main channel that was mentioned was the use of representatives. Company B's representative highlighted that when it comes to prescription medicines,"face to face" operations are the biggest part of the companies' marketing mix. What should be noted is the difference to the self-care medicines. According to the interviewee from Company B, traditional media such as radio and TV play an insignificant role in the marketing mix of the prescription medicines.

Besides this, different channels targeted at professionals were mentioned such as intranets, professional magazines and websites. The pharmacist described the information that is targeted to the pharmacies as follows:

"All channels are in use – one could read information about new medicines from sun up to sun down."

In the following sections these channels will be further discussed. The discussion will proceed in accordance with the themes seen in the literature review: first the non-financial ways will be addressed and after that the financial ways.

4.2.1.1. Non-financial ways

The non-financial strategies of marketing prescription medicines aim at building and maintaining relationships with pharmacists and prescribing doctors. The empirical findings show that the non-financial ways of marketing are of high importance when it comes to the prescription medicines. As stated by the interviewee from Company B:

"This is ultimately about sales… A medicine is no better than any other product in the sense that it could sell itself; it is up to the marketing and sales functions to do that."

In terms of the non-financial ways of marketing medicines, the main means for this are the representatives. Indeed, the findings from the interviews show that representatives are broadly at use in the industry. They are sent to visit pharmacists and prescribing doctors on a regular basis to give information about the company's products. Both pharmaceutical companies stated that these representatives have geographical responsibility areas but also areas of specialization; according to the interviewee from company B, one group is sent to visit doctors and another to visit pharmacists. According to the pharmacist, different pharmaceutical companies send representatives to visit the pharmacy weekly. Furthermore, they might hold regional information sessions or education seminars.

Interestingly the pharmaceutical companies' statements about the aim of the use of representatives slightly differ. The interviewee from Company A highlighted that their purpose is merely informative;

"When new drugs are launched it is important is to make sure that the doctors know how to use them. The most important task of the representatives is to talk about this and the benefits the product has for the patient"

The interviews with Company B, however, stressed on the representatives' responsibility in selling the product:

"The representatives meet plenty of doctors and try to argue for their own product – though it is very limited what can be said [about the product]. It is sales job; you're trying to make an impression so that your drug would be prescribed."

Interestingly the pharmacist noted that it is both ecologically and economically inefficient for the companies to physically send out representatives to talk about their products. Yet they are still widely used as the most important tool for marketing prescription medicines. The reason for this can be drawn from the empirical data – the value of the representatives does not seem to lie so much in the information they

provide but the personal relationships they build. All the interviewees declared that the goal is to have the same representatives regularly visit the same doctors and pharmacists. As the reason for this the pharmacist stated that it is nice to have “a familiar face” to the company. Company A’s interviewee said that the reason for this is that it facilitates things to have the same person visit the same people.

The drawback of this personal relationship with the representatives also emerged in the interviews. The pharmacists and the doctors have the power of determining which representatives they meet – or refuse to meet. A quote from the pharmacist clarifies the situation:

”The pharmacists decide who is accepted to present [their product]; some are not accepted if they are annoyed with them or do not want to use the personnel’s time”

In addition, all the interviewees stated that the information about new medicines comes primarily from the representatives. The doctors have the authority to prescribe medicines and the pharmacists have the authority to recommend alternative general products for the prescriptions. Thus, it is a preliminary condition for different drugs to be prescribed that the representatives are allowed by the doctors and pharmacists to present them.

Besides using the representatives, another important way of maintaining relationships with the practitioners is the collaboration that drug companies do with the practitioners. Both the drug companies stated to have collaboration contracts with all the large pharmaceutical chains in Finland. When asked to describe their co-operation with pharmacists and doctors, one could again note the difference in weighting between Company A and Company B’s statements. Company A – once again – highlighted that they have many types of co-operation but mainly educational. Company B stated that it is mainly marketing collaboration. Company A, however, seemed to consider the quality of education as the primary concern in terms of maintaining relationships with the practitioners:

“The quality image of the practitioners is formed via the quality of the education; that is what the doctors appreciate these days and that is what the relationship to the representative and the whole company is dependent on. That we have relevant speakers and that the education is related to the products but also benefits the doctor and the patient.”

Finally, the importance of the representatives again came up in this context. The pharmacist stated that the companies that they have most in common with are the

ones who market both prescription- and self-care medicines as they are visible more often in the everyday lives of the pharmacies.

4.2.1.2. Financial ways

The financial ways of marketing prescription medicines to doctors and pharmacists refer to anything with monetary value that the drug companies might hand out along with their product information. The change in industry regulation within the last century was apparent in the interviews – all the interviewees stated that the PIF Code of Ethics regulates strictly the handing of any types of gifts to the practitioners in Finland. Thus, companies focus on providing education when it comes to the financial ways of marketing their products.

The interviewees highlighted that the representatives are only allowed to have educational material with them as they visit the doctors and pharmacists. All the material that they can hand out is dictated in the PIF Code of Ethics. This means mostly different educational handouts. As stated by the interviewee from Company B, usually the representative's visit occurs during café or lunchbreaks when it is normal to bring some café or bakery products but nothing more. Company A also addressed the issue well:

"The industry change is apparent in the Code of Ethics; these days it is not allowed to leave so much as a pen but merely educational material"

The interviewee also continued on the subject, saying that this development is "a few years old". In the past it was allowed for medical companies to leave gifts related to the doctor's profession – the shift to the current state has occurred incrementally.

Despite this it is still usual that the companies provide training for the practitioners. This training means organizing education seminars for pharmacists both live and virtually. The virtual educational possibilities were brought up several times over by the pharmacist as a "new revolutionizing form of education". In addition, there are different fairs for all the healthcare professionals where pharmaceutical companies can be present. Both companies seemed to recognize the importance of providing quality education. Interviewee from Company B stated the following on the matter:

"The only way to get people to attend these trainings these days to ensure that the program is good and that it is experienced as neutral but that the company also has its own turn to speak."

The interviewee from Company B also commented on the shifting nature of the provided training:

"These days it is naïve to think… people make their own decisions and that you would have some completely commercialized event; a miracle doctor coming to tell you about a treatment and suddenly everyone decides to use it… that does not really happen."

Yet it was also apparent in the interviews that education provided by the pharmaceutical companies is often considered as biased by the public entities.

Finally, sponsorships are used as financial ways of marketing the prescription medicines. When it comes to sponsoring, both medical companies stated that they do not directly sponsor any events; only in the form of charity donations.

4.2.2. Self-care medicines

Differing from prescription-medicines, self-care medicines can be directly marketed to the consumer in Finland. Nevertheless, the interviews showed that the marketing is strictly regulated by the PIF. Firstly, discounts cannot be provided on any medicines. Thus, there are no medicines present on, for example pharmaceutical chains' monthly discount magazines. Secondly, as stated by the interviewee from Company B, there must be certain information present when marketing medicines to consumer:

"If you follow for example radio advertising, the reason why they always say the same standard things – read the package description carefully, not suitable for children and such – it is because it must be present when it comes to medicines since the law states that."

When asked to name the primary channels for self-care medicines, both traditional media and digital marketing were mentioned. Most importantly, Company A named pharmacies as the most important channel for marketing their products. Specifically, two ways in which the pharmacies can market the medicines came up in the interviews. Firstly, campaigns realized in co-operation with pharmacies were brought up by both pharmaceutical companies. The fulfillment of the campaigns as well as their success is carefully monitored by the companies via sales and representatives. Furthermore, the pharmacists are well educated about the medicines and can recommend them to the consumers.

In terms of the traditional media, the statements of the pharmaceutical companies signaled two different views. On the one hand, Company B mentioned TV, radio and magazines as their most important marketing channels for self-care medicines. Though Company A's interviewee also mentioned these as important channels, he stated that they are quickly moving from traditional media to even social media. However, Company A's interviewee also recognized the importance of the target market:

"It depends on the product whether traditional media is more important; if seniors are the target group, perhaps TV and radio are better."

What was emphasized by all the interviewees of the pharmaceutical companies is the fast emergence of digital marketing in the medical industry. As examples of digital marketing they gave the video-sharing site Youtube, online-TV, the use of cookies, social media - such as Facebook-pages for some products - and online-banners. The fast growth of digitality shows in this quote from Company A's interview:

"10 years ago it was mostly banners and websites; over the last 5 years social media has had a breakthrough"

However, there was a difference in the emphasis of digital marketing for the different pharmaceutical companies. Company A clearly stated that it uses more resources on digital marketing due to the ease of targeting and measuring as opposed to the traditional media. On the other hand, Company B stated the following about digital marketing:

"Time is not right for completely moving to digital marketing since it is the certain group of people of the same age group who go to the pharmacies."

5. DISCUSSION

This section summarizes the key findings of the empirical research and analyzes them in terms of the existing literature which was discussed in the literature review. The goal of this is to provide answers for the research questions underlying this research. Therefore, this section aims to clarify what are the changes that have taken place in the Finnish market over the last 10-15 years and what marketing strategies are at use in the industry. Ultimately this section will discuss how the companies have changed their marketing strategies due to these changes. The themes occurred in the literature review will be touched upon in the same order as they were first presented in the literature review: first the industry changes will be analyzed and then then the marketing strategies.

5.1. Changes in the industry

The existence of industry changes in the Finnish market became evident in the interviews. The next paragraph will further specify which changes of the ones stated in the literature review were also recognized in the interviews.

5.1.1. Decline in discovery, approval and marketing of new chemical entities

Firstly, the literature states that it is crucial for the industry to constantly engage in R&D activities and new innovations to remain profitable. This was also recognized by the interviewees as both of the interviewed pharmaceutical companies named creating new innovations as their primary operations.

However, the decline in discovering NCEs could not be seen in the interviews. On the contrary, all the interviewees seemed to think that the last years had been rather productive in terms of new drug development. The impact of the high failure rate in creating new medicines or the increased scrutiny was not noted by the companies.

The interviewees did mention the increased industry regulation but – unlike in the literature – did not link any decline in new product development to it.

5.1.2. Market entry of generic drugs

Similarly to the findings in the existing literature, all the interviewees recognized the fast and wide market entry of the generic drugs. They also notified the dramatic decrease in overall pricing due to this.

The reasons that the previous literature presented for the market entry of the generic drugs were partly mentioned by the interviewees. The expiration of some old medecines' patents came up in the interviews as one of the reasons for the generic drugs' entrance. However, the interviewees did not seem to regard this development to be as dramatic as the literature presents; once a patent expired they stated that they strive to develop their own alternative to offer. In addition, the economic downturn was not mentioned as a reason for the generic entry. Rather the medical companies seemed to regard this recent development as the natural consequence of the regulatory environment which has become stricter.

Overall, the interviewees seemed to regard the generic entry as a natural development that did not make a significant threat to their business. This differs from the view of the previous literature as it suggests that the generic entrance makes a big threat to the companies' business. One reason for this might be what Lukkari and Parvinen (2008) present: in the Finnish market doctors are reluctant to change their prescribing habits which protects the branded products. In addition, what emerged from the interviews is that also the pharmacies tend to maintain the same companies in their product choice. Therefore, it can be stated that the Finnish market has some attributes that protect the status quo of the pharmaceutical industry. Though it is noteworthy that the interviewed drug companies were big companies with long traditions and stable customer relationships which means that they might not feel as threatened by new market entries. Similarly, the interviewed pharmacist was from a fairly small pharmacy with limited storage space which might affect the ability to accept new products.

5.1.3. Regulatory changes

In the literature review Finnish market was described as the typical European market with tight regulation. This was very much seen in the interviews as all the interviewees described the industry as very regulated. Moreover, it was stated in the literature that this makes it crucial for the companies operating in the market to maintain relationships with the different institutions and practitioners in the industry. The interviewees also agreed to this as they stated that it is very important for them to maintain relationships to different operators in the field.

The increased regulation in the market was recognized by the interviewees. From the two main aspects of the increased regulation environment – the regulations brought by the EU and the reference price system – especially the reference price system was mentioned. One interviewee even described its impact as “dramatic”. On the other hand, the effects of the EU were minor if not inexistent according to the pharmaceutical companies. The effect of harmonizing legislation and the centralized markets brought by the EU were mentioned by one interviewee but the impact of them was considered small in Finland. Thus, the industry in Finland seems to be affected more by its inner regulative functions instead of the international and European regulation.

5.1.4. The emerging markets

The main point that arose from the interviews here was that the local managers of the international companies were fairly unaware of the changes in the manufacturing locations of their products. The company that did name some of their manufacturing locations mentioned some traditionally developed countries; USA and Sweden. Europe was also mentioned as a broad area but no specific locations. Thus, the E7 countries presented by the literature were not mentioned as emerging markets. The pharmacist mentioned India as one of the current manufacturing locations for many drugs but did not specify any companies or products.

It should be taken into account here that the interviewees were reluctant to specify the manufacturing locations of their products. As a reason for this might be the genuine unawareness from the interviewees’ side. However, one interviewee only mentioned

the domestic manufacturing locations but refused to name any locations abroad. This implies that the companies might have inner policies restricting the sharing of this type of information externally.

5.2. Marketing and sales in the industry

The discussion will now move on to pharmaceutical marketing. It will present the current marketing practices used by the industry in Finland, comparing them to the marketing practices found in the previous literature and providing an analysis on the changes that have occurred in these practices within the last decade. The discussion is divided so that it will start with prescription-medicines and move on to self-care medicines.

The literature stated that the prescription-medicines are the focus-point of companies conducting pharmaceutical marketing since they comprise the bulk of their sales. The empirical research failed to confirm this as the interviewed companies were reluctant to clarify their monetary importance – instead they stressed on their importance image-wise.

5.2.1. Prescription-Only medicines

The theme that arose both from the literature and in the interviews, was the strict regulation that prohibits the companies from marketing prescription-medicines to the consumers. Also, what could be recognized from the interviews – though not directly – was that the means of social psychology, both financial and non-financial, were widely in use by the pharmaceutical companies. The foundation for current pharmaceutical marketing in Finland seems to be laid by the strict regulation which has led to companies increasingly borrowing practices from the field of social psychology.

5.2.1.1. Financial ways

In terms of financial ways of marketing prescription medicines to the practitioners, gifts, education grants and sponsored research were mentioned in the literature review. Of these three, two were mentioned in the interviews. Here the industry changes were recognized the most by the interviewees. The interviews showed that the regulation has become notably stricter within the last decade; this prohibits the pharmaceutical companies from giving various gifts to pharmacists and doctors as they might have used to. The results showed that they are no longer allowed to even leave a pen with the product's name to the doctor's or the pharmacist's. However, the interviews showed that it is normal for the pharmaceutical representatives to bring with them something to eat or something minor; the ground rule being that the inclusion of brand names is not allowed. Though these may not seem like enormous gifts, they are enough to trigger reciprocity norms in the receivers – the doctors and pharmacists, that is. These reciprocity norms recognized by Sah and Fugh-Berman (2013) in the previous literature assure that the receivers might subconsciously feel that they "owe" something to the pharmaceutical companies. As stated by Blumenthal (2004), the size of the gift is insignificant when it comes to forming this type of reciprocal relationship.

Also, providing different type of education was mentioned as an important channel for marketing the prescription medicines. The industry changes were apparent also here. The interviews showed that it is increasingly important to provide quality education that is experienced as neutral; this is the only way to get doctors and pharmacists to attend the education. In addition, the possibility for virtual training was named as one of the new possibilities brought by the advanced technology. Finally, providing education for the practitioners might also form reciprocity among them. The interviews showed that education provided by the pharmaceutical companies is often the only channel that provides free education for the doctors and pharmacists. Thus, it might also be considered as a type of gift. It is also a chance to remind the practitioners of the brand names. Though here it should be noted that the above-mentioned quality of education is indeed of high importance – as stated in the results, a completely commercialized educational event is no longer possible these days in the sense that it could not attract participants.

Finally, sponsored research was named as one financial way of marketing prescription medicines. This did not arise in the research as both pharmaceutical companies stated that sponsoring is not a part of their company policies.

5.212. Non-financial ways

When it comes to the non-financial ways of marketing prescription-medicines, the results show that the principles of persuasion presented in the literature are at use in the Finnish market. The keys in these principles are commitment, consistency, social proof, liking and authority in marketing. More specifically, the research showed that the use of representatives is the primary channel for conducting these means.

Firstly, the results show that liking and social proof lay the foundation for the use of representatives in pharmaceutical marketing. Both the receiving and conducting end of the marketing prefer the same representatives visiting the same people at a regular basis. This enables forming a personal relationship between the representative and the practitioner. The importance of liking the representative even extends so far that the ability for the company to represent their products at all might be dependent on it. This is due to the receiving ends' power of declining the representatives they do not wish to meet. The principles of consistency and commitment also arose in the research in the sense that the companies send representatives to visit the same people at a regular basis. This confirms the creation of a personal relationship. Therefore, the assumption presented in the literature of companies deliberately engaging in active networking with the practitioners is also accurate for current Finnish market.

Moreover, the research showed that that the doctors and pharmacists mainly get information on new drugs from the pharmaceutical companies. This supports the notion of success for non-financial commitment that was presented in the literature. According to this notion, the key for success is that people tend to anchor on initial information. Thus, it is important for the pharmaceutical companies to be the first ones to share information on new innovations. This also explains the companies' emphasis on creating new innovations – it is crucial to ensure the successful commitment of the doctors and pharmacists. In addition, the fact that people believe messages delivered with confidence was named as one of the key factors for the successful non-financial

commitment. Here the importance of providing quality education with proper speakers is relevant. This was also highlighted by the interviewees.

5.22. Self-care medicines

The literature presented two main themes in marketing when it comes to self-care medicines. These were personal selling and online marketing. Both were also mentioned by the interviewees. Also, the regulation that dictates the terms for the marketing of self-care medicines was – again – brought up in the interviews.

Firstly, in terms of direct-to-consumer-advertising, the interviewees named both traditional and the new channels of digital marketing as important channels. The companies are increasingly striving to find better ways for targeted marketing. The literature addressed the issue of targeted marketing as women were targeted twice as much as men in advertising. The interviewees also confirmed this as it was stated that they try to choose magazines read by women since they are most often the ones buying medicines for the whole family.

Moreover, the research showed the decreasing importance of the traditional media as marketing channels. However, this development was not as straight forward as one might expect; the companies also stated that traditional media remains important as the elderly are not yet fluid in using the internet. Being an important customer group for the pharmaceutical companies, they should be considered.

Finally, the research showed that the challenge of applying the strict regulation for marketing medicines hinders the transformation for completely digital marketing. The law states that certain information must be present in an advertisement about drugs. As stated by the interviewees and the literature, this might be challenging in an online environment. It can be said, interestingly, that the trend of increasing industry regulation slows down the transformation to the digital era in terms of pharmaceutical marketing. The global discussions about increasing amount of online pharmacies that were presented in the literature do not concern the Finnish market as drugs are only sold in pharmacies.

6. CONCLUSIONS

This section will conclude the thesis. First the main findings of the study will be presented. This will be followed by discussion on the implications this thesis has for international business. Finally, the section will end by presenting suggestions for further research and then the limitations of this study.

6.1. Main Findings

The research questions of the study were: (1) what changes have been seen in the Finnish market over the last 10-15 years, (2) what are the main marketing techniques used by the pharmaceutical companies in the Finnish market and (3) have the pharmaceutical companies changed their marketing practices or adopted new ones due to industry changes.

To address the first question, as stated in the findings and discussion sections, some of the industry changes recognized in the previous literature were also apparent in the Finnish market. More specifically, the biggest industry changes recognized by the companies were the changing regulatory environment and the market entry of the generic drugs. These seemed to carry rather a causal cause-effect relationship in the interviewees' minds; the market entry of the generic drugs was seen as a natural cause from the regulatory changes (the generic substitution and the reference price system). The declining amount of the NCEs was not addressed by the companies as they rather noted an increase in the amount of new product launches over the last years. Similarly, the emergence of the new markets was not addressed. Though here it should be noted that the interviewees were not able to comment on the changes in the production locations due to lack of knowledge or company policies.

Regarding the marketing techniques used by the pharma companies, the study showed the following. The most important marketing channels for prescription medicines were quite different from the main marketing channels for self-care medicines. The companies named representatives as the most important marketing channel for prescription medicines. For self-care medicines this was the different mass

media. It varied according to the company which was considered more important – the traditional media or the digital marketing and social media.

Finally, the study showed that the industry change which had most affected the marketing strategies of the companies was the increasing regulation. Due to this, the companies have altered their use of representatives in the prescription side – for example banning the use of gifts – which has led to increased emphasis on maintaining and creating relationships to the doctors and pharmacists. In addition, the rapid increase of digital marketing and the possibilities brought by this, such as more specific targeting, was the change that had the most effect on the marketing strategies. Digital marketing is rapidly increasing in importance alongside the traditional mass media marketing. However, this change is hindered by the wide target audience for medicines, the elderly people, who mostly have not adopted the internet and social media in their daily usage.

6.2. Implications for International Business

The importance of this thesis to international business derives from the nature of the drug industry. The same multinational companies widely operate in the industry globally. Thus, the changes and marketing strategies that can be seen in the Finnish market also apply for the whole industry globally. Furthermore, Finland is a part of the EU and so its market is reflected by the European market and its ruling trends and regulatory policies.

Moreover, the issue of pharmaceutical marketing remains important and should be continuously studied. The dilemma occurs from the differing interests of the entities operating in the field: on one hand, it should be ensured that the patients are provided with proper health care and treatments while, on the other hand, maintaining the business profitability for the pharmaceutical companies seeking returns for their business. This results in the ethical dilemma of pharmaceutical marketing; how much of a sales business can the pharmaceutical industry be while constantly taking the patients' interest into consideration? Indeed, in terms of the well-being of individuals and more widely the society, the conflict of interest occurring in the interchange between the pharmaceutical companies remains an international issue. Though the

Finnish market has its own regulatory aspects and policies, this issue is the same which could be discovered from the interviews.

6.3. Suggestions for Further Research

The further research suggestions can be inspected in terms of the research objectives of this thesis. These objectives were (1) to find out which of the industry changes that were recognized by the previous literature were also recognized by the companies operating in the Finnish market, (2) to determine the main marketing methods for prescription and self-care medicines after the industry changes and (3) to explore if the industry changes have made the pharmaceutical companies in the Finnish market to change their marketing practices or adopt new ones.

When it comes to the first objective, the research failed to find out whether there has occurred a change in the manufacturing locations of the companies' medicines. Thus, this is an area that could be further researched. Also, the subject of the thesis is fairly wide to be conducted in such a narrow scope and time limit. The industry changes could be researched in a wider context, for example inside the EU, including multiple nations to the research. This would ensure a wider image of what is globally happening within the industry.

In terms of the main marketing methods for medicines, this thesis does not include the end customer perspective of pharmaceutical marketing. As there always remains ethical issues when dealing with people's health-care and well-being in pharmaceutical marketing, the customer experiences could be further researched. Also, the doctors' prescription patterns could be further studied. Furthermore, the digitalization is an issue that was brought up several times over in the interviews. It would be useful to research the implications of the increasing digitalization to the pharmaceutical marketing.

6.4. Limitations

This study has certain limitations which were mostly derived from the limited time available for conducting the research. Firstly, due to the time limitations the scope of the research is narrow and the amount of the empirical data is small. To thoroughly study the entire Finnish market, a larger number of interviews ought to be conducted from all the entity groups presented in this study – at minimum interviews from both the companies side and both entities who are the target of pharmaceutical marketing. This refers to the doctors and the pharmacists. This leads to the second limitation of the study. Due to the time limit, an interviewee with a doctor could not be included. This would have ensured a broader perspective of the experiences of the receivers' experiences. Especially data concerning the marketing of prescription medicines is in this study mainly gathered from the companies conducting the marketing.

The industry changes are alone a wide issue to be researched. Within the time limit it proved to be rather challenging to find interviewees who could answer to all the questions regarding the industry changes but would also have thorough knowledge on the current marketing practices of the companies. Therefore, some questions of this section remained unanswered as the interviewees simply did not have the knowledge or had not been in the company long enough to respond.

Finally, using interviews as the research method had some issues. The pharmaceutical companies insisted on previewing the interview questions beforehand. This was not the situation with the pharmacists. This puts the interviewees in a different situation in answering the questions. In addition, using interviews always contains the danger of losing the interviewee's initial message. Since the interviewees were conducted in Finnish and translated to English for this study, there remains a translation issue. Some ideas may be lost in the translation process.

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APPENDICES

Appendix 1: The question plan for the companies

Background:

- What are your main products?
- Are your operations based in Finland or abroad?
- How many people do you employ? How big is your market share?
- How big budget do you have for marketing drugs?

Changes:

Decline in discovery, approval and marketing of new chemical entities

- Approximately how many new product launches does your company make per year?
- Has there been an increase/decrease in this amount in the past decade?

The generic drugs entering the market

- Do your products include more brand or generic drugs?
- Which ones do you consider to be more important for your business?
- Has the generic entrance had an impact on your products prices?
- Do you consider the generic entrance a big threat?

Changing regulation

- Describe the impact of the reference price system and the generic substitution program to your products?
- How has the membership of the EU affected your company?
- The emerging new markets
- Where do you manufacture your products?
- What changes have there been in your manufacturing countries in the past decade?

Marketing:

- On which one do you think you company puts more emphasis, the marketing of prescription medicine or self-care?
- How do you measure the success of your marketing?

Prescription-medicine:

- What is your company's most important prescription product?
- What do you consider to be your company's main marketing channels for prescription medicine?

-Non-financial ways (building networks to companies)

- How often do you have campaigns in collaboration with the pharmacists?
- Do you regularly send representatives to visit pharmacists/doctors?
- Do the same representatives visit the same targets year after year?
- Do you have co-operation with pharmaceutical chains?
- How would you describe the importance of maintaining relationships to practitioners to your company?

-Financial ways (gifts, sponsored vacations)

- Do you offer training for the practitioners?
- Does your company sponsor different medical events? What for example?
- Do your representors have hand-outs with them for their visits or also something else? What?

Self-care medicine (OTC):

- What are your company's most important OTC medicines?
- What do you consider to be your company's main marketing channels for OTC drugs?
- Do you use online marketing? What are your main online marketing channels?
- Describe the marketing campaigns you have had in the past years? (Influential, emotional?)