

Market Research in Vietnam, case study: Medikro

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<p>Abstract</p> <p>The objective of this thesis was to do a market research into the Vietnamese market by using Pestle analysis and the country specific framework regarding the healthcare industry and medical devices market. The primary objective of the research is to identify whether there is a possible market for Medikro products.</p> <p>A qualitative research was conducted with two physicians having expertise in treating pulmonary disease. The face to face interview was chosen as the data collection method for this research. The result of the interview revealed that the Vietnamese medical equipment market relies massively on imports; therefore, there are definite opportunities for foreign medical devices producers to gain a profit.</p> <p>As far as the implications of this study are concerned, it can be concluded that Vietnam is an auspicious market for foreign medical device producers to export into. Therefore, it is an idea worth considering to select Vietnam as a new target market for Medikro Oy.</p>			
Keywords Market research, market analysis, PESTLE			

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ABBREVIATION

B2B	Business to Business
COPD	Chronic Obstructive Pulmonary Disease
CPI	Corruption Perception Index
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GP	General Practitioner
ISO	International Organization for Standardization
OECD	Organization for Economic Co-operation and Development
PISA	Program for International Student Assessment
USD	United States dollar
VAT	Value Added Tax
VND	Vietnamese Dong
WTO	World Trade Organization

1 INTRODUCTION

Medikro is a Finnish based company specializing in the development of pulmonary diagnostics and monitoring instrument. Medikro's products have been sold in several countries in Europe, the Middle East and Asia. As Medikro would like to continue expanding its market in new countries, the company plans to enter the Vietnamese market, however, there is lack of information available on this market. In order to decide whether to enter Vietnam or not, Medikro must obtain the information of the market potential.

The target of this study is to collect relevant information about the Vietnamese business environment and analyse the data to identify whether Vietnam is a suitable market for Medikro products. The core objective to be attained is researching the Vietnamese market by using PESTLE analysis and the country specific framework regarding the healthcare industry and medical devices market.

It is first necessary to research the prospects and general information of the Vietnamese market, especially in political aspect. Therefore, the research will mainly focus on two questions:

- What is the nature of the Vietnamese market, especially in medical devices industry?
- Is there a possible market for Medikro products?

As the case company - Medikro has already run its business in several countries, the activity of internal readiness testing can be passed in this research. The survey is mainly focused on the analysis of the Vietnamese market, study of the distribution system and operation mode.

This study is comprised of nine parts. Firstly, there is an introduction of thesis topic, motivation of conducting this study and thesis structure. In the second chapter, several theories of business to business and market research in B2B setting are comprehensively illustrated. In the third chapter, the analysis tool used to generate the result of this study namely PESTLE, will be introduced. In the fourth chapter, several related theories to the study, such as distribution system, operation analysis and operation mode are clarified. In the fifth chapter, the general information of

Medikro, especially in export and distribution system is generated. The next chapter presents data gathered in the study. In the seventh chapter, the result of researching the Vietnamese market through the use of the PESTLE model and the details of the interviews research are provided. The eighth chapter discusses result in brief. Finally, reliability and validity of the study and writer's suggestion for further research are discussed in this chapter.

2 BUSINESS TO BUSINESS

According to Kotler et al. (2005, 302), business to business or B2B marketing is generally described as a circumstance that a company or an individual consumes products or services for the purpose of utilizing them as materials or components in production activities, expending them as resource for business operations, or re-selling them to other businesses and to final customers. In brief, B2B marketers buy goods or services for the purpose of increasing more value, as a result of transferring them to the ultimate consumers. B2B can comprises not only companies, retailers, merchants and wholesalers, but also healthcare institutions, non-profit organizations, charity groups and other government institutions.

In the views of Fill et al. (2005, 8), types of organization consumers in B2B can be classified into three groups: commercial, institutional and government. Commercial organisations include distributors, equipment producers, retailers and users; users in this circumstance are organizations that buy products or services to contribute to their manufacturing activities. Institutional organisations are non-profit and community-based organizations. Government organisations comprise health, environmental protection, education, policing, transport as well as national defence and security departments.

The characteristic of business markets differs from consumer markets in several aspects, for instance, the demand, the buying power and the character of decision. Business consumers are typically insignificant in number but dominate the large scale of sale. In addition, the demand in business market is inelastic. The change in price does not cause the business companies to purchase more or less product, especially in a short period. Likewise, the overall demand for goods is not extremely influenced by the fluctuation in price. However, the demand in business markets is inconstancy; a minute raise in consumer demand can affect the numerous growth in business demand. (Kotler et al. 2005, 303-305.) Furthermore, business purchasers are more rational. Their purchasing behaviour and decision are more complicated and have more parties involved. Also, business purchasers are typically long-term consumers; therefore, relationship is major factor in maintaining a consumer's orders. (Hague et al. 2016.)

Despite mentioned differences, business markets and consumer markets share several similarities. First of all, both business and consumer marketers are customer orientated. Their main concerns are to understand and evaluate on the change of their consumer's needs. Secondly, both require ability to collect, process and apply data of their clients and competitors to accomplish their missions and goals. (Fill et al. 2005, 5.)

Standing on the experience, the purchase is typically operated in order to raise the B2B buyers' income. For this reason, the B2B purchasers should work effectively to boost more sale or to procure lower-price offers to decline expenditure. Moreover, the purchase is frequently done by B2B buyer to get rid of facing government's forfeiture. Therefore, it is suggested the successful marketing strategies targeting B2B customers are typically appeal to lowering costs, raising sales or fulfilling government legislations. In addition, the appeal needs to be straightforward to illustrate when transferring marketing plan from a domestic to a foreign context (Zimmerman & Blythe 2013, 2).

On the other hand, it has been argued that if the B2B enterprises only pay attention on goods and price, they will lose the opportunity to establish close and solid relationships with customers. Selling low-priced products or services is only relevant in temporary or short-term plans; it is an unstable strategy – even an insignificant one. The more effort B2B marketers make to contribute to the performance effectiveness of customers, the more sustainable client commitment they achieve. (Nink 2013.)

Market research in B2B settings

Market Research is a technique for generating information and data about the target consumers or markets. These are considered extremely essential factors in business strategy. The needs of market research arise when enterprises need to take various factors into account in their decision-making but face with collection of data shortage in regards to their clients and markets. (McQuarrie & Edward 2005, 3-5.)

Market research plays a vital role in B2B settings. B2B research requests a small sample size in which an insignificant number of respondents have highly impact on the numerous share of revenue. A significant and initial part of conducting

market research is to identify the required information and the information used for what and by whom. (Zimmerman & Blythe 2013, 90-101.)

With a little effort, the internet now allows people to explore information faster than ever since more and more data is now accessible online. Nevertheless, it does not seem feasible to form a representative sample via the sources from the Internet. Since the B2B research deals with minute population, it seems feasible to create interviews with few respondents to justify practical outcome (Zimmerman & Blythe 2013, 116-117).

As business market research differs from consumer research, there are several aspects that need to be considered when conducting research in B2B settings. Firstly, business market research is performed for the purpose of estimating the market potential and to figure out members of buying groups. Secondly, respondents in business research are difficult to define as ultimate user and purchasing decision makers are typically two separate parties. Next, it requires profound background and practical knowledge of product categories or topics of the survey to operate an executive interview. (Zimmerman & Blythe 2013, 91-92)

3 PESTLE ANALYSIS

Running business in international markets is more complicated and less secure than in domestic markets. The fluctuation in currency exchange rate, changeable legislation and government policy, language and culture differences are several challenges that the organizations might face in the international market. It is therefore essential that the companies should be aware of various issues from the external environment that can affect to the business of their target localization. (Kotler et al. 2005, 222-223)

Daszkiewicz and Wach (2012, 49) believe that in order to succeed in the target country, companies must discover the potential by operating rule of all the total external aspect of the selected market. For the purpose of interpreting the state of the market, it is crucial to generate an overview of the country specific framework in the initial stage of researching the market.

Furthermore, by scanning the general environment of the target market, the enterprises cannot solely spot the opportunities but also swing into action promptly and accurately to adapt to the changes of business environment and to avoid the risk of loss or failure (Gupta 2013).

Mentioned above are the several reasons for analysing external circumstances. PESTLE analysis is frequently used to examine the outside factors in relation to business as it is the basic and common tool. PESTLE analysis tool contributes a framework for comprehensive picture of macro-environment (Berg & Pietersma 2014, 154).

According to *Rastogi and Trivedi* (2016, 386), PESTLE is an acronym for Political, Economic, Social, Technological, Legal and Environmental (Figure 1). PESTLE is the added detail of Pest. There are several variations of the PESTLE analysis such as the followings:

- ETPS analysis includes economic, technical, political and social factors
- PEST analysis includes political, economic, social and technological factors
- STEPE analysis includes social, technological, economic, political and ecological factors

- STEEPLE analysis includes social, technological, economic, ethical, political, legal and environmental factors.

However, the initial version of PESTLE is ETPS which was formulated by Aguilar. (Yüksel 2012.)



FIGURE 1. PESTLE analysis (Johnson et al. 2011)

According to Reuvid (2014, 175), there are several questions that should be inquired when operating this tool, they are as follows:

- What are the prevailing political climates? How does political influence on the industry?
- What is the economic conditions in the target market?
- How significant and essential culture is in the target market? What are the elements of local cultures?
- How technological innovations is? How do it affect the market structure?
- What is the prevalent regulation? How is the stability of laws?
- What are the current issues and conditions in the field of ecology?

Compare to SWOT analysis – the tool to identify the strengths, weaknesses, opportunities and threats of an organization, PESTLE analysis is more all-inclusive and provide worthy checklist of critical strategic aspects. It is not only contrary to

SWOT but also is possibly applied to analyse strengths, weaknesses, opportunities and threats. (Smith 2011, 96.)

3.1 PESTLE factors

Political factors

Political factors study the way government policy impact on business environment and trading. Items to consider include tax regulation, corruption level, trade barriers, stability of government, employment and operational regulations. (O'Brien 2015, 199.)

Economic factors

Economic factors examine the external economic affairs that can affect the business of company. Factors to consider comprise economic growth, inflation rates, interest rate fluctuations, GDP trends, government expenditure, economic stability and demand for raw material. It contains so many points here; on the contrary, it is not necessary to refer to all of them in details. We should pay different attention to them depending on different business fields. (O'Brien 2015, 199.)

Moreover, the three aspects that might influence international operation and need to be studied in terms of economic analysis; they are economic freedom, economic systems and economic indicators (Daniels et al. 2013, 184-185).

Social factors

Social factors analyse cultural trend, customer demographics, and lifestyle aspects of the market that company are operating in. Sectors necessarily to be examined are demographics, population distribution, education, life expectancy, buying habit, lifestyle and social conventions. (Johnson et al. 2011, 68.)

Technological factors

Technology can impact on how a company delivers its product or service to the target market. Factors to consider are Internet infrastructure and penetration,

government expenditure on research and development, infrastructure level, patents and licenses, use of outsourcing and rate of change of technology (Johnson et al. 2011, 68). Moreover, technological factors comprises technology inducement, computerization and mechanization (Babatunde and Adebisi 2012).

Legal factors

Legislative changes occur from time to time and many of them affect the business environment. Legal factors comprise regulation on product safety, health and safety, employment and competition law (Rao et al. 2008, 116).

Environmental factors

The location of the targeted country influences on the trades that businesses do. Climatic changes alter the trade of industries and the way consumers react towards a certain offering that is launched in the market. The environmental factors include government policy as regards pollution and recycling, utilization of eco-friendly products (Johnson et al. 2011, 68).

3.2 Pros and cons of PESTLE

According to Hopkin (2014, 159), there are several advantages of utilizing PESTLE tools. The first advantage of PESTLE is basic and simple tools to conduct. An additional advantage is that the tool assists the process of learning the business environment. Another point in favour of this tool is PESTLE inspires the improvement of strategic thinking. What makes PESTLE stand out is that it helps adopters to estimate and avoid the business risks of loss and failure. Moreover, users can spot the opportunities, and then swing into action promptly by applying PESTLE tools.

On the other hand, PESTLE is not completely beneficial; there are still some negative aspects that should be taken into consideration. Firstly, the inputs that are collected for the decisions might be oversimplified. Another negative aspect of this tool is that PESTLE must be implemented frequently to ensure efficient use of resources. Additional disadvantage is that it might take time and great expense for researching external data. Moreover, there might be a risk of gathering excessive

inputs to which cause the struggle to give priorities. Finally, the data collected by PESTLE can be based on unsubstantiated assumptions. (Hopkin 2014, 159.)

3.3 PESTLE application

Managers typically apply PESTLE to program the plan for their business activities; it is because the tool offer a safe start for business ventures. This tools contributes outputs of factors in relation to business decision. In addition, PESTLE is normally used in product development. For instance, in order to promote new products, managers need to examine PESTLE factors in designing new products. Finally, PESTLE can be used in market research when the marketer would like to expand to another market. (Dcosta 2011.)

Moreover, it has been suggested that PESTLE analysis should be implemented in both current and upcoming business environments. Tendencies and instability typically lasts longer than just a current year. It is necessary to evaluate trends and base them on the credible data. (Berg & Piestersma 2014, 155.)

PESTLE can be applied to conduct interview questionnaires with consumers, partners, specialists and other business parties, Moreover, the tools can be applied as framework in a workshop or a brainstorming meeting. (Berg & Piestersma 2014, 155.)

4 DISTRIBUTION SYSTEM AND OPERATION ANALYSIS

After gathering information of all factors affecting the target market, it is essential to clarify the procedures to facilitate the flow of goods from the source to the final customer. Distribution system analysis is implemented to investigate whereby future consumers can buy goods in the selected countries. The main concern of the analysis is interpreting the method of distributing goods to end consumers (Kananen 2011, 39-40). The structure of distribution varies between countries and regions and is frequently dominated by government regulation and existing competitors.

Operation analysis mainly goes through approaches to deliver products from producer to the target country. The various alternative methods of distributing can range from a broker in their home country, a merchant in the export country, or both of them. Companies can select whether the export representative, import representative, foreign trade enterprises, or other middleman to work with.

The company, type of goods and selected market have an impact on the selection of operation mode. A company size and its previous involvement and know-how in exporting affect the selection. Several types of goods require particular brokerage activities which occasionally are just temporary requirements. These aspects assist in the decision on operation mode (Kananen 2011, 41).

Operation mode

Operation mode is part of distribution system in the process of delivering goods into the target countries. Kananen wrote in his book "How to Enter International Markets a Guide for SMEs" (2011, 44) that Luostarinen & Welch (1990) have categorized mode of operation into three sections: export, contractual modes of operation and investments. Export operations means exporting goods from home to a selected market using a variety of operation and distribution systems. Exporting is comprised of own export, direct export and indirect export. Contractual modes of operation refer to the activities of producing goods out of the home countries. Outsourcing manufacturing is performed in overseas markets through a contract, franchising or licensing. Investment can be described as when nearly all production activities are operated in foreign country. Investment operation consists of setting up a local business subsidiary, acquisition or joint venture.

4.1 Own export

The companies operate their own activities and take their whole responsibilities for exporting products from domestic market to target market. No middleman or external agent gets involved in distribution chain to the target country. Establishing their own sale representative store or exporting directly to the purchasers is typically implemented in own export (Kananen 2011, 45-46).

One of the main advantage of own export is that the companies retain the entire control over their goods, for instance, setting a price for goods and determining the terms of sale in the target market. Furthermore, they can build long-term relationship with their ultimate clients. This is because working directly to consumers, the companies can immediately receive their feedback and adapt promptly to their requirement. Nevertheless, there are certain drawbacks of own export. Firstly, building up and maintaining the distribution chain is quite expensive. It also demands time, competences and employees. Additionally, the cost of acquiring new local customers and taking care of existing local customers is fairly high. Finally, it requires the expertise in foreign market and proficiency in export skills and knowledge to run the own export operation. (Terpstra & Sarathy 2000, 385.)

It is suggested that own export can be implemented when selling product to neighbour countries where language, culture and social can be somewhat similarities to each other (Kananen 2011, 45-46).

4.2 Direct export

The companies that engaged in direct exporting manage their own export tasks while their middleman performs a variety of distributing, selling and marketing responsibilities in the overseas market. The middleman that can be an agent or an import management enterprise represents intermediate stage in own export. Direct export occurs when a firm acts as business collaborator in an overseas market that contrast starkly with the own export. In order to operate well the whole export tasks, it requires the companies to achieve extensive language and export proficiency (Kananen 2011, 46).

4.3 Indirect export

In indirect exporting, the companies employ external export agents or export management enterprises to operate whole activities to distribute goods from domestic market to the ultimate consumers in target market. The companies may not necessarily commit themselves to the exporting process in domestic country and the selling operation in the target country. (Albaum & Duerr 2008, 308.)

Indirect exporting is typically implemented in the beginning step of expanding market abroad where the companies gain limited resources as well as language and export proficiency (Czinkota et al. 2009, 223). The domestic middlemen receive their discretion in setting the sale, the price for goods and the terms of sale to end consumers.

There are various pros and cons of indirect exporting. One of the strikingly benefit is that it is mostly risk-free method to start expanding business internationally. Insignificant involvement in exporting and selling procedure in the target market allows the companies to focus on their domestic business. Beside apparent benefits, the indirect export has its drawbacks. First of all, it is losing control over the overseas sale. The development of foreign markets mostly relies on the middlemen but not on the companies in domestic market. Lacking of experienced of middlemen can prevent the progress of exporting. In addition, the higher charge for services offered by the middlemen may increase total cost of exporting; profits of the companies may decline as a result of the rise in cost. Furthermore, lacking direct contact to ultimate customers and the ignorance of target market may hinder sales and product development. (Wall et al. 2010, 39-40.)

5 MEDIKRO

Medikro was founded by Mikko Eloranta in 1977 in Kuopio, Finland. It is a family owned private company which is rooted in cardiopulmonary systems. The company is known as one of the first producer of computer based spirometer in the world. With expertise in spirometry tools and more than 30 years of experience, Medikro has sold its products globally under Medikro Brand and Trusted original equipment manufacturer partners. The company quality system is certified by the International Organization for Standardization ISO9001 and ISO13485.

Medikro has international distribution partners in more than 20 foreign markets. Currently their target markets are in Nordic and Middle Europe. The majority of their revenue in export is also from China. Medikro can be considered as a business to business company as their worldwide target consumers are mainly in public and private field such as hospitals, healthcare centres and the other kinds of health institutions.

Medikro is currently considered as a small and medium-sized enterprise. Its strategies to sell product globally is indirect export. Seeking trusted and well-known distributors and build a relationship with them are Medikro's main concerns in exporting activities. At the moment, there are approximately 45 distributors across the world. Its essential markets are Germany, France, Italy, Norway, Sweden and China. In addition, there are several new markets that the company has entered such as Middle East, Spain, Portugal, Thailand, Australia and New Zealand.

Building relationships with existing partners is the fundamental method to succeed of Medikro. In addition, improving high quality service, training and broadening new market segment in current territories are the other keys to grow in available markets and distribution system. For example, training information data and marketing aid data are fulfilled each year as Distributor Support Kit - distributor file, guides, multi-language leaflets, user guides, instruction materials and other related materials are included.

Medikro distribution system

At the moment, Medikro does not apply any standardized distribution channel. Depending on the various characteristics of a target market, they decide different methods to deal with their distributors. The followings are three typical approaches that are generally implemented:

- Figure 2 shows that there are a considerable distributors in market. The final customers might purchase directly from some of those or buy indirectly from the sub distributors - the middleman between distributors and ultimate users. For example, Medikro applied this distribution channel to approach Italy and France.

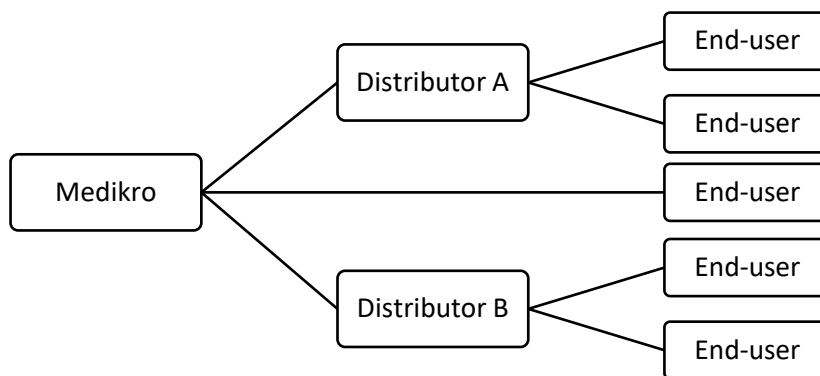


FIGURE 2. Example number 1 of Medikro distribution channel (Baker & Kubleck 2015)

- Figure 3 shows when there is an exclusive distributor in market. This distributor offers Medikro's product to numerous sub distributors or sells directly to final consumers. This distribution systems has been applied in Germany and Middle East.

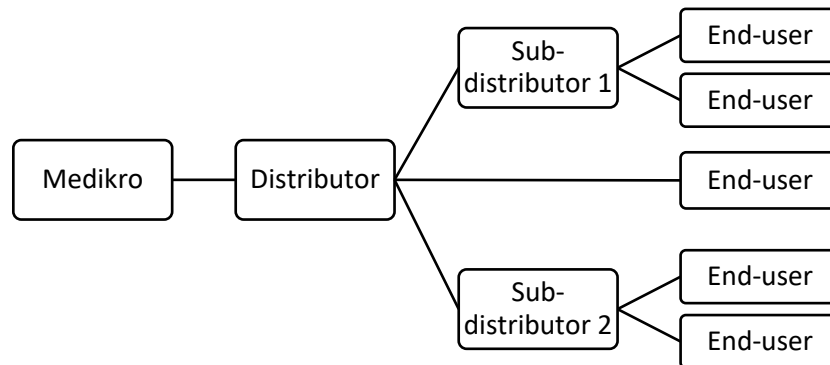


FIGURE 3. Example number 2 of Medikro distribution channel (Baker & Kubleck 2015)

- Figure 4 displays that there is an exclusive distributor in market. This distributor sells directly to the final users. This distribution channel is considered as the picture-perfect one for Medikro. Nevertheless, it seems to be challenging to attain in big market such as Norway, Sweden, Iceland, New Zealand and Australia.

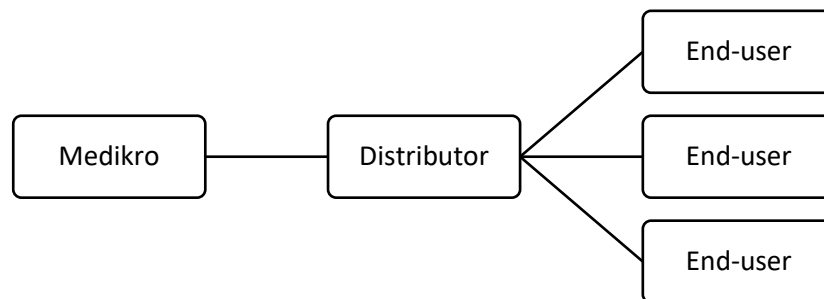


FIGURE 4. Example number 3 of Medikro distribution channel (Baker & Kubleck 2015)

6 METHODOLOGY

This chapter explains the methodology and the process of operating this research. For the purpose of discovering on the Vietnamese market, the research is necessary to resolve following questions:

- What is the nature of the Vietnamese medical devices industry?
- What is the patient treatment process in Vietnam?
- Is there any possible market for Medikro products?

6.1 Data collection

Primary data is information that is gathered by the researcher for a specific intention. Types of primary data vary. In terms of B2B market, it is suggested to apply these following methods during the process of collecting primary data:

- Private interviews
- Mobile interviews
- E-interviews
- Focus groups
- Online surveys
- Ethnography
- Market research online communities (MROCs)

Secondary research concentrates on existing data which are gathered by earlier research and published by the researcher. Secondary data includes sales figures, market research reports, government publications and competitor marketing literature. Secondary data can be found from several sources which are government statistics, company reports, and market research services, national and international organization. (Crawford, 1997.)

McGivern (2006, 150-151) writes that the secondary data can be basically collected from internal and external sources. Internal sources comprise sale, transport, storage and financial data, which are recorded by the firm from its daily operations. External sources are the existing inputs that have gathered by other organizations.

Secondary data is effective in international marketing research, especially in market entry research. Secondary data are practiced thoroughly in international research as it is low-cost and available. It can be applied to establish the country specific framework by investing on potential and risk. (Craig & Douglas 2000, 138.)

For the purpose of this study and the case company - Medikro's type of business is business to business, both primary and secondary data were collected in this study. In addition, it is suggested to examine secondary research prior to continued analysis with primary research. This is because collecting information from secondary data is faster and less expensive. Once it is accomplished, it is unnecessary to collect information from primary data as all need information are generated; then the primary data need to be researched. However, primary data is essential, especially in international research as secondary sources do not enable to describe a detailed and proper information. (Zimmerman & Blythe 2013, 95.) Therefore, research began with secondary data which lead to the primary research meaning that general information of the Vietnam marketplace from the published and available secondary information was collected prior to the direct contact to resources for more information and details.

6.2 Research approaches

6.2.1 Desk research

Researchers typically differentiate three kinds of data collection methodology; they are secondary research, qualitative research and quantitative research. Secondary research is so-called as this type of methodology is commonly associated with secondary data. Secondary research refers to desk research. (Gofton & Ness 1997, 74.)

Secondary data was mainly implemented in this study. Sources of information was collected from market investigations, periodicals, advertisements, government institutions, healthcare institution, World Health Organization, Organization for Economic Co-operation and Development and Medikro.

6.2.2 Qualitative research

The research was conducted by using qualitative method. This is because qualitative research is to inspect the attitudes, thoughts and motivation of targeted respondents. Three methods which are typically applied in the qualitative research are focus groups, depth discussion and observation. (Hague 1988, 76.)

The substance of Gray's paper is that qualitative research is most proper when:

- The analysis relatively small number of participants.
- The researcher is aiming for the flexibility to move among subjects dependent on the way candidates' reaction.
- The researcher is targeting to identify strength of attitude on a particular subject.
- The researcher is defining particularly compound issues.

Therefore, qualitative research is considered as the most suitable methodologies in this study due to the small number of respondents and the purposes of this research. Qualitative research allow interviewee generate a background of the market and to delve into the problems.

A qualitative questionnaire was conducted with the purpose of collecting information from experts to generate several information that cannot be answered from desk research such as information of pulmonary patient treatment process, to identify physicians' thought and behaviour, evaluate the current situation and real problems in Vietnam healthcare where no information exist.

The main objectives of qualitative research is to get insight into the market and to investigate the required method and process being applied to treat pulmonary sickness, the information of competitors, administrative and point of view of physicians. The survey was conducted in 2016 in Vietnam.

6.2.2.1 Depth Discussion

Depth discussion, especially face to face interviewing was chosen as data collection methods for this research. The interviewees are two physicians who have experienced the Vietnamese healthcare industry and have been the expert in

treating pulmonary disease. The purpose of the interview was to get insight into the Vietnam healthcare market to investigate further information of pulmonary patient treatment process, to identify physicians' thought and behaviour, evaluate the current situation and real problems in Vietnam healthcare where no information exist.

Depth discussion was chosen in this research instead of focus group and observation due to the limited of time of this thesis and the distinctive attribute of business to business research such as difficulty in respond accessibility and a small sample size needed. Hague (1988, 78) recommends that paired or triangular deep interview is used in business to business market where the subject is wide and complex.

Face to face interview was decided as the methodology in qualitative research. Vietnamese was the language to be applied during the interview. Geographically the scope of this research was mainly in Hochiminh city, Vietnam. The target respondent was pulmonologist from various healthcare institutions. The respondents were mainly contacted by email prior the interview. After the invitation for interview had been booked, the deep interview was arranged outside of the office. In addition, the questionnaire was pre-tested to assure that the physicians completely understood all the questionnaire and to anticipate the duration of the interview.

The questionnaire used during the interview mainly concern on the followings:

- The chain of care for respiratory patients and how spirometry device take place in.
- The process and method of purchasing decision in the hospital.
- The general data concerning on the Vietnamese spirometer market and respiratory diseases.
- The information of current competitor.
- The physicians' point of view regarding the Vietnamese spirometer market and suggestion for Medikro to enter the market.

The figure below (figure 5) presents the information of interviewees such as name, job title, name of institution.



FIGURE 5. List of interviewees

6.3 Research outline

Firstly, the meeting with sale manager from Medikro was conducted at the beginning of the research to review the crucial information and data that the company would like to reveal. The list of research's questions is conducted based on the need of Medikro.

Next, the theoretical content of the Vietnamese healthcare system was operated by applying desk research. When the results of desk research had been accomplished, the questionnaire for interviewee was conducted to answer the remaining questions that desk research cannot resolve.

Then, the list of potential professionals in Vietnam for the interview was compiled. One physician was contacted thanks to the suggestion from Medikro. Invitation for the interview which includes brief introduction of Medikro was sent by email to the interviewees.

The final stage was to operate the interview. Before the interview was fully launched, the content of the questionnaire was tested by people who share related background with interviewees to guarantee all the questionnaires were well-understood. Then,

the result was fully analysed by using both desk research and interview to define whether or not the Vietnamese market is a suitable option.

7 RESULT

In this chapter, the result of researching Vietnam market through the use of the PESTLE model, concerning on several aspects: political, ecological, social, technology, economic, legal factors are analysed. After generating information of all factors affecting the target market, the result of analysing the procedures to facilitate the flow of goods from the source to the final customer is displayed. In addition, the results of the interviews concerning on healthcare systems and medical devices industry are also provided. This chapter is divided into 2 sections; one section is result from desk research which comprise PESTLE and distribution system result and the other section is result from interview.

7.1 Result from desk research

Political

Vietnam is a communist country which is led by one party – the Communist Party of Vietnam. In Vietnam the head of state is President and the leading of government is Prime Minister of Vietnam. President and Prime Minister are selected every five years. The latest selection was held in 2016. (Embassy of the Socialist Republic of Vietnam in the United States of America 2016.)

In terms of political aspects, argument and dissent are not appreciated in Vietnam. Conflict and protest occasionally or rarely happen in this country. Recently, the noticeable protest was against the disputable explanation by the government for numerous dead fish across the country's seacoast. Moreover, the freedom of expression and press are controversial issues in Vietnam. Information from Internet is controlled and Internet connection are even blocked with no announcement. (GOV.UK 2015.) In 2014, among politically stable countries, Vietnam was ranked as 19th in Asia and as 4th in South East Asia (The Global Economy 2014).

Vietnam joined the WTO in 2007 and the government committed itself to complete the WTO agreements. By applying the Most-Favoured-Nation treatment (MFN), The Vietnamese government offers equal trading opportunities the other member countries; the tariffs barriers and trade restrictions are gradually eliminated. The

numerous medical device manufacturers who operate their production activities in Vietnam are constantly on the rise, since the participation of Vietnam in WTO in 2007. Several companies such as Terumo, Sonion and United Healthcare transferred their factory from another countries to Vietnam thanks to the cheap labour cost and the support policy of the Vietnamese government. (Vietnam Chamber of Commerce and Industry 2016.)

Due to the shortage of domestic supply capacity and the demand for sophisticated medical equipment in Vietnam, the local government encourages and promotes the import of these products. Reduction in import taxes and duties and the dismissal of quota restriction are the examples of the encouragement. The import tax rate of medical devices is generally from 0% to 5%; the import tax rate for spirometers in Vietnam is 0% (Pitney Bowes 2016). In addition, imported products are charged a value added tax (VAT) for their full price. The VAT rate for medical devices is 5%.

Economic

“Change and newness” policy is the market economic system, has been implemented since 1986. The implement of economic liberalization dramatically affected Vietnam development and helped Vietnam to escape the group of poor country. (The World Bank 2016.)

According to The World Bank (2016), the total GDP of Vietnam, in 2015 was 193.6 billion USD. The annual GDP growth rate was about 6.7%, which was considered the highest growth rate since 2010. However, the GDP growth rate of Vietnam is still low compared to other countries in Asia. The inflation rate was 0.6%. The income per capita was consider as lower middle income with 2,111 USD which was approximately three times lower compared to China (7,924 USD) and Thailand (5,816 USD) and nearly 25 times lower compared to Singapore with 52,888 USD – the highest income per capita in South East Asia.

Economic Freedom Score of Vietnam in 2015 was 54.0 which is considered as mostly unfree. Vietnam has kept the “mostly unfree” economic status for twenty years. This is because of the insufficient transparency in regulation and bureaucracy, the unstoppable corruption. (The Heritage Foundation 2016.)

Vietnam currently is an attractive market for foreign investment. Foreign Direct Investment (FDI) in Vietnam was more than 20 billion USD in 2015. The greatest sources of FDI come from the Republic of Korea. In 2013, the world's largest smartphone factory of Samsung is placed in Vietnam. It is estimated that Vietnam is still a promising market for investment in the upcoming years not only thanks to the stable politics organized by one-party state, the increase of GDP growth rate and the high value of working-age population, but also to free trade agreement (FTAs). Moreover, the free trade agreement between Vietnam and European Union (EVFTA) and the Trans Pacific Partnership (TPP) would lead numerous benefit to involved countries and promote foreign investment to Vietnam. Furthermore, health care industry attracted high level of FDI into Vietnam; the total amount of investment in this sector was than 908 million USD in 2010 (Vietnam Breaking News 2010).

In addition, corruption in Vietnam remains a major issue that restrains the development of its economy. The grade of Vietnam in the Corruption Perception Index (CPI) remained unchanged from 2012 to 2015. This country is ranked 112th in CPI out of 168 countries in 2015 (Towards Transparency 2016).

Medical equipment industry in Vietnam is presently developing with a continuous increase in demand for these products. The statistics on BMI which Vietnam Chamber of Commerce and Industry wrote in its journal "Thị Trường Thiết Bị Y Tế Việt Nam" (2016) that the total revenue of this industry was 781.8 million USD in 2015 and is estimated to reach at 1.095 billion USD in 2019. From 2016 to 2020, it is estimated that the average growth rate may be around 18-20% (Trang 2016).

The majority (approximately 95%) of medical equipment are imported. The leading suppliers are mainly from the US, Germany, Japan. (Pacific Bridge Medical 2011.)

The medical equipment customers in Vietnam can be classified into 4 groups. Public hospitals, the leading group, are the highest overall buyer of medical device with approximately 70% of consumer share; by regulation, these customers typically purchase products through bidding. The second group of consumers is foreign hospitals of which product purchasing decisions are mainly determined by their overseas holding companies. The domestic private hospitals group is enhancing both quality and quantity and is considered as promising regular clients due to their high buying power. The fourth group is medical research and education organizations. (Embassy of Denmark in Vietnam 2015.)

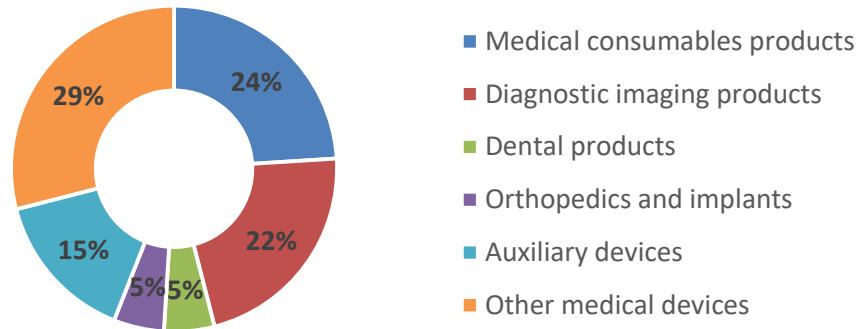


FIGURE 6. Medical market device in Vietnam (Vietnam Chamber of Commerce and Industry 2016)

The data on BMI which Vietnam Chamber of Commerce and Industry (Thị Trường Thiết Bị Y Tế Việt Nam 2016) gave clear evidence that nearly a quarter of medical device market in 2015 was medical consumables products, most of which were imported from Singapore. In figure 6, medical consumables products accounted for around 22% of the total medical equipment products in Vietnam; these products were mainly purchased from Japan and Germany.

Director general of Financial and Planning Department of Ministry of Health, Mr Pham Le Tuan has addressed that the purchasing of high technology medical equipment are enhancing in metropolitan areas such as Hochiminh city, Hanoi, Da Nang, Can Tho etc. In the upcoming three years, it is estimated the total expenditure on this industry in Hochiminh city, the most developed city in Vietnam, will be approximately 900 million USD. (Trang 2016.)

The support from international organization to enhance the quality of Vietnamese healthcare industry. In 2014, for instance, European Union signed agreement with Vietnamese government with the value of nearly 130 million USD for the second stage of EU-HSPSP program; the initial purpose of this agreement was to support Vietnam in the process of improving the quality of healthcare product and services in this country. (Vietnam Chamber of Commerce and Industry 2016.)

Social

The population of Vietnam is approximately 91 million in 2015 of which the rural citizens account for 70% of total population. Vietnam has the 14th highest population in the world. (Australian Trade and Investment Commission 2015.) There is an unequal population distribution in the country; Hanoi – the capital of Vietnam and Hochiminh city – the largest city of Vietnam are the two most crowded cities with more than 7 million citizen of each (Thanh Nien News 2014).

The average life expectation of Vietnamese is rising and the increasing longevity of 60-79 year old population would lead to demand of using medical devices in the upcoming years (Vietnam Chamber of Commerce and Industry 2016).

Even though Vietnam's per capita income is quite low in general, middle and affluent class rate is growing faster in Vietnam comparing to other countries in Southeast Asia. The increasing of these groups highly impacts on the consumption pattern. Purchasing power and need of high quality products and services are dramatically intensify. It was measured that in 2015 about 40,000 Vietnamese spending approximately 2 billion USD for healthcare abroad due to the lack of healthcare quality and efficiency in domestic (Thanh Nien News 2013).

Smoking is the most typical cause of lung diseases, especially Chronic Obstructive Pulmonary Disease (COPD). Even though it is reducing, smoking prevalence remains fairly tremendous in Vietnam. According to World Health Organization (2015), the proportion of Vietnamese male smoking in 2015 was precisely 47%; it was 1% among female smoking. Vietnam was ranked 19th in a top most male smoking country and 15th in a top most smoking country with around 15.3 million smokers (Vietnam Ministry of Health 2015).

The health expenditure in Vietnam was approximately 13 billion US dollars (USD) in 2015 and expected to reach 24 billion USD in 2020. Vietnamese government spent around 5.8% of Gross Domestic Product (GDP) on healthcare expenditure. (Australian Trade and Investment Commission 2015.)

A brief in World Trade Organization (WTO) recommendation in which Shober (2014) writes that the present expenditure does not show the effective policy improvement

and bureaucratic unity of Vietnamese government to focus primarily on healthcare expenditure

Vietnamese government is striving to improve its healthcare quality and performance by , for instance, accelerating universal health insurance, enlarging healthcare insurance coverage, rising life expectancy and diminishing mortality and malnutrition. However, there are several obstacles that the country should overcome. The first serious difficulty is unequal distribution of quality and access between rural and urban hospital which lead the overcrowding of urban hospital. Another issue is the deficiency of competence physicians and sophisticated and advanced equipment. Finally, there are issues of unfulfilled demand in terms of both quality and quantity due to the shortage of efficiency domestic supply. (U.S. Commercial Service 2014.)

There are two types of national healthcare insurance in Vietnam; voluntary and compulsory. Compulsory insurance applies to employees; both employees and employers are obligated to be charged for the healthcare insurance of employees. Voluntary insurances apply to people who are not suited to the compulsory insurances such as student or housewife. Free health insurance applied to children under six, the elderly and the poor. Examination and treatment covered by national health insurance in private hospitals account for nearly 4% of total health coverage. (Vietnam Ministry of Health 2015, 69.) Nearly 62 million Vietnamese people (more than two-thirds of population) were covered by health insurance in 2013. Among these people, approximately 10% are covered by voluntary health insurance and the rest of them are covered by the compulsory. It is estimated that in 2020 about 80% of population will be covered by national health insurance. (Rousseau 2014.)

There were 1090 public hospitals and 175 private hospitals in 2014. The number of hospital beds per 10 thousand habitants is 25.1. Most public hospitals, especially in Hanoi and Hochiminh city, are facing persistent overcrowding; these hospitals work at almost 200% of the capacity in rush hours while the local hospitals and clinics in rural areas do not operate at full capacity. This is because that the majority of hospitals and specialists in the urban areas lack the capacity to serve both patients in and out of the city. (Australian Trade and Investment Commission 2015.)

Most public hospitals are non-profit. The budget of public hospital is gained from state budgets. Private hospitals are increasing and seem to be potential market for foreign investors. (Global institute for tomorrow 2014, 22-24.)

Technological

Thanks to a huge improvement on policies to welcome investment, Vietnam has become top worldwide outsourcing market (Gerrity 2015). Vietnam currently is well-known and notable for outsourcing of engineering services and software development services. Samsung, one of leading mobile phone producer, built its world's largest factory in Vietnam and is presently producing a half of its smartphone in this country.

Vietnam has gained a worldwide prestige in science and technology sector, for instance, mathematics, investigation of agricultural and biology. Vietnamese students accomplish in the Organisation for Economic Co-operation and Development's (OECD) Program for International Student Assessment (PISA) – one of the greatest cross-national tests in more than 60 countries through the measurement of worldwide student's reading, mathematics and science literacies. In Table 1, for instance, it can be seen that Vietnam is ranked 17th of PISA 2012 results.

TABLE 1. PISA 2012 results: top 20 countries (OECD 2014)

Ranking	Country	Math, mean score in PISA 2012	Reading, mean score in PISA 2012	Science, mean score in PISA 2012
0	OECD average	494	496	501
1	Shanghai-China	613	570	580
2	Singapore	573	542	551
3	Hong Kong-China	561	545	555
4	Taiwan	560	523	523
5	S.Korea	554	536	538
6	Macau-China	538	509	521
7	Japan	536	538	547
8	Liechtenstein	535	516	525

9	Switzerland	531	509	515
10	Netherlands	523	511	522
11	Estonia	521	516	541
12	Finland	519	524	545
13	Canada	518	523	525
14	Poland	518	518	526
15	Belgium	515	509	505
16	Germany	514	508	524
17	Vietnam	511	508	528
18	Austria	506	490	506
19	Australia	504	512	521
20	Ireland	501	523	522

On the contrary, the infrastructure became obsolete and Science and Technology fields are deficient in advanced technology and sophisticated infrastructures such as laboratories and equipment. In particular, the Vietnamese manufacturers currently does not have the capacity to produce high-tech and sophisticated medical devices. Most medical equipment that is produced domestically remains basic and simple. Also, Vietnam has a low level of production efficiency in comparison to the rest of the world. Additionally, deficiency in intensity of innovation, research and development capability is the drawback of this country. (OECD & The World Bank 2014, 25-29.)

The domestic companies currently do not acquire sufficient competence for producing sophisticated medical equipment. The local firms currently manufacture several basic medical devices such as syringe needles, catheters, mask, lead rubber, and wheelchairs. Warranty and after sale services offered by the local companies are poor. (Pacific Bridge Medical 2011.)

The results on Ipsos Business Consulting which Vietnam Chamber of Commerce and Industry wrote in its journal “Thị Trường Thiết Bị Y Tế Việt Nam” (2016) that national government is currently striving to develop and modernize clinics quality in

order to fit the continual market demand and to reduce the issues of hospital overload.

Legal

There is no official detailed and comprehensive guideline from custom for trading. As a result, regulations are executed on a case-by-case basis and learning-by-doing is commonly an effective method. Tax administration is very time-consuming. In addition, corruption and lack of official detailed and comprehensive guideline from custom remain a major complication. Therefore, be well-prepared for legislation that probably is not transparent and conditional on conflict clarification by various local authorities. Moreover, the company should ensure that they consult expert local advisors. (Carlén 2009.)

According to Embassy of Denmark in Vietnam (2015, 5), the legal formation is currently the crucial boundary to the advancement of medical equipment market while Vietnamese government is constantly striving to overcome this barrier. It demanded the numerous of steps and formalities to distribute medical devices in this country. The import permit flow chart, for instance, might comprise of clinical testing, ascertaining the quality, required application dossier and labelling. Several of them are not concordant with global criterion. Moreover, the postponement of registration extension and the deficiency in instruction on existing regulation are considered as barrier to market entry into Vietnam. The regulation of medical devices is still executed on a case-by-case basis. As a result of assisting the progress of this industry, the Vietnamese government are continuously making an effort to ameliorate policies and eliminate unnecessary existent procedures and entry restrictions.

In Vietnam, it is regulated that most public hospitals, government-funded healthcare institutions and several private clinics are obligated to purchase medical equipment through bidding. According to Vietnam news (2014), foreign bidders have their legal rights to participate in international bidding if they collaborate with a domestic firm or affiliate with Vietnamese subcontractor.

Environmental

The focusing on economic growth in the situation of poor environmental awareness causes the harmful impact on environmental stability and results in environmental pollution. The cause behind the pollution is generally the manufacturing products in industrial areas, the transportation emission and household wastes in metropolitan region. It is estimated that in the urban areas, the air pollution is mainly caused by transportation (70%) (Vietnam Ministry of Health 2015). The environment pollution result in the raise of respiratory diseases such as COPD (Vietnam Ministry of Health 2016).

Distribution system

Before 2007, selling medical equipment through domestic distributors or agents was frequently used to export these products into Vietnam (Figure 7); this is because only the Vietnamese organizations with import license were qualified to distribute medical devices in Vietnam. However, this restriction was eliminated; the overseas medical equipment manufacturers currently can manage their own distribution organizations and activities in Vietnam. (Vietnam News 2016.) The illustration of the recent distribution channel that the foreign supplier can apply is shown in figure 8.

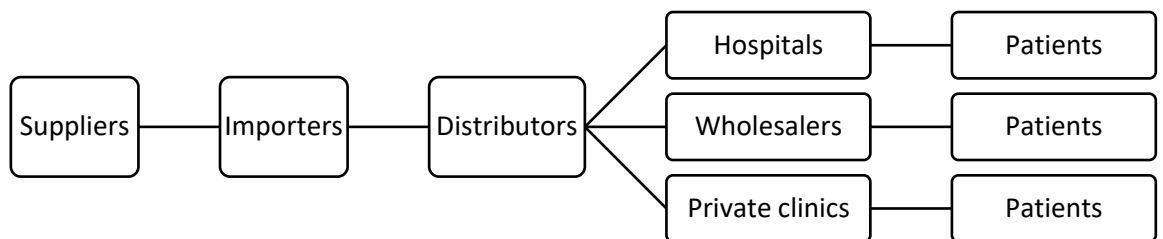


FIGURE 7. Distribution systems in Vietnam before 2017 (Vietnam News 2016)

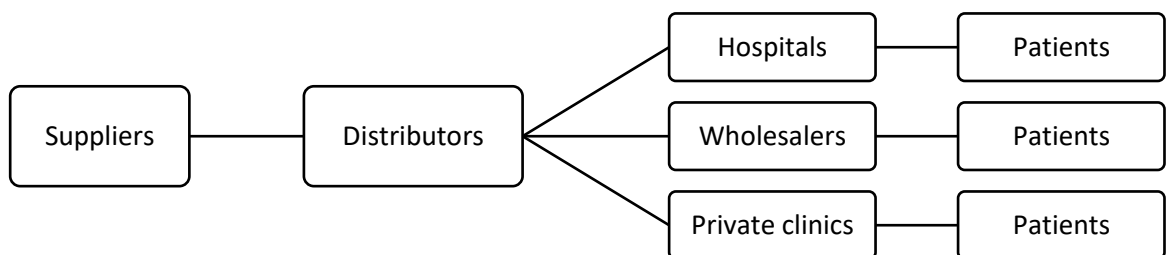


FIGURE 8. Distribution systems in Vietnam after 2017 (Vietnam News 2016)

7.2 Result from interview

Physician 1: Nguyen Nhu Vinh

Nguyen Nhu Vinh is pulmonologist at University Medical Center HCMC. This hospital is considered as one of the major hospitals in Hochiminh city and generally in Vietnam. He is also an official lecturer at Ho Chi Minh City University of Medicine and Pharmacy and a member of International Primary Care Respiratory Group (IPCRG). He also works for a private clinic named CHAC after his office hours. All the information mentioned below is collected through a face to face interview with Mr. Nguyen Nhu Vinh in 6 August 2016 in Hochiminh city.

In terms of pulmonary diseases, he estimated that currently University Medical Center HCMC has served approximately 100 patients per day and CHAC welcome about 50 patients per day. He has no figure of the number of daily spirometer test are performed. He also provided that around 5% of Vietnamese adults were diagnosed as having Asthma disease, compared to 10% of children. There are 4.3% of mature people diagnosed with COPD in Vietnam; there is roughly no Vietnamese child was diagnosed with COPD. By calculation, it is estimated there are at least 18.2 million patients need to be tested with spirometry devices.

However, the problem in Vietnam is that a numerous local health facilities, especially in small provinces, districts or remote areas, currently do not own any spirometry equipment. Several local health facilities are well equipped but the insufficient skilled technicians can cause to the inexact diagnosis. Therefore, local patients normally choose big and reputable hospitals in major city for better examination and treatment. Typically, these patients pay out of pocket for all healthcare cost themselves, without any reimbursement because health insurance covers the cost of care only when treatments are taken place at locally registered medical establishments, or at higher level hospitals with prior certification from medical establishments allowing to transfer patient to the specialized hospital. In practice, the registered medical establishments rarely issue this certification solely because of the lack of capacity for spirometry testing.

In terms of insurance, maximum fee to be covered for spirometry test is 150,000 Vietnamese Dong (VND) which is equal to about 6 euros. Typically, the price of spirometry test in public hospital is lower or equal to this amount. Vinh said that the price for spirometry test at University Medical Center HCMC is 200,000 VND (approximately 8 euros) although this hospital is a public hospital.

In terms of key players in Vietnam market, Koko is presently the leading company in spirometer production in Vietnam. Koko is a name of pulmonary function test devices of Nspire Health organization. This is a United States headquartered company. To explain why this product is popular in Vietnam, Vinh believed that using educational approaches as a marketing strategy to encourage engagement, to build lasting relationship with customers is a key to succeeding in Vietnamese spirometer market.

Associate Professor Doctor of Philosophy doctor Le Thi Tuyet Lan is one of the first people to introduce spirometer device to Vietnamese market in 2001 and the sample machine used in her lectures is called Koko. Most of her trainees are from other hospitals and cities. They have been introduced and tutored about Koko's spirometer equipment during their professional training. Because of the practice and training on this product, they have become confident with Koko's machine. Most spirometry activities in Vietnam are not performed by pulmonary specialists but by technicians. Numerous spirometry technicians, especially from rural areas, have insufficient respiratory expertise and limited English language proficiency while most spirometer devices are programmed in English and request specific knowledge of pulmonary function, respiratory systems as well as spirometer products to use. Because of these issues, it would be time-consuming for these spirometry technicians to switch to and adapt for the other spirometer devices. They would prefer using the equipment with which they were obviously well acquainted to the other products. For this reason, Koko is typically in the top list of choices. In brief, the customer naturally committed themselves to using Koko's product through the education-based marketing.

The result on other interview of Vinh which Vietnam News (Most asthma patients in VN can't manage disease 2016) gave clear evidence that the small health facilities in rural and remote areas are facing with the deficiency of spirometry machine to diagnose and the incompetence of available technicians. A considerable demand for spirometer in Vietnam creates opportunities for the spirometer manufacturers such as Medikro. Since a shortage of skilled spirometry technicians remains a chronic

challenge, Vinh believed that an educational approach continues to play a vital role in the effective marketing strategy to create engagement and credibility with clients.

In terms of target customers, Vinh suggested that local clinics and health institutions can probably be potential buyers of Medikro rather than the big and well-known public and private hospitals due to the fact that normally these hospitals prefer purchasing whole-body plethysmography to the other types of spirometer. It is also because that the small and local clinics would like to buy reasonable, portable and easy-to-use spirometers to which Medikro products could adapt to suit.

Vinh also suggested that both private and public hospitals highly value and make their decisions based on competitive pricing, service and quality. In addition, relationship with customers in practice is the crucial competitive advantage in selling product to the public hospitals. Therefore, price-based approach could be the effective marketing strategy in selling spirometer to private hospitals while relationship-based approach can probably works in the public hospital market.

Physician 2: Tran Van Ngoc

Associate Professor Doctor of Philosophy doctor Tran Van Ngoc is currently head of the Respirology Department of Cho Ray hospital. This hospital is the biggest healthcare facilities in Ho Chi Minh City and South of Vietnam. He is also vice dean of faculty of medicine, vice head of internal medicine department of Ho Chi Minh city University of Medicine and Pharmacy, vice president of Ho Chi Minh City Respiratory Society and vice president of Vietnam Association against Tuberculosis And Lung Diseases. He also works as a chairman of board and professional councils of Ngoc Minh clinic.

In terms of pulmonary diseases, the expert said that the percentage of Vietnamese diagnosed with Asthma disease is currently 4.1% of the population. There are 4.2% of people diagnosed as having COPD in Vietnam.

In terms of the number of daily spirometer test performed, he estimated that the figure is 15 tests among Cho Ray hospital, 3 or 4 tests among Ngoc Minh clinic and 20 tests among University Medical Center HCMC and Pham Ngoc Thach hospital. The expert also stated that there is no statistics showing the number of annual spirometry test performed in Hochiminh city or Vietnam.

In terms of insurance, maximum cost to be cover for spirometry test is 200,000 VND to 250,000 VND (approximately 8 to 10 euros). Typically, the price of spirometry test in public hospital is lower or equal to this amount. Ngoc said that the price for spirometry test at public hospital is 200,000 VND (approximately 8 euros); it is 300,000 VND to 350,000 VND (approximately 12 to 14 euros) at private hospitals and clinics.

In terms of key players in Vietnam market, Koko remains in the top mentioned spirometer of Ngoc. Another spirometer equipment that Ngoc have known and is currently practicing is Medisoft. This company was established in 1977 in Dinant, Belgium. However, in August 2014 it was acquired from MGC Diagnostics Corporation, an American medical technology company (Fierce Diagnostics 2014).

Patient treatment process

The information of patient treatment process collected from the discussion with Vinh and Ngoc are mainly similar to each other. Therefore, for the purpose of well structure organizing, the detailed information of two responses to the interview is combined into these following.

Patients are free to choose any hospitals or clinics for their treatment. However, they can get their insurance reimbursement only when their treatment is accomplished in the registered hospital. The patients normally go directly to the healthcare institutions without any booking in advance. With the suggestion of receptionist in the hospital, the patient choose type of examination to take. It can be divided into two types of patient; they are patient with and without historic of or doubt about lung disease symptoms. Below are steps that the respiratory patient takes in general:

Type 1: respiratory patient without historic of or doubt about lung disease symptoms.

- Patient visits general physician (GP).
- The GP refers the patient to an examination department for general check-up.
- Patients have a general check-up. The general check-up includes, for example, blood test, ultrasound test, chest radiograph and urine test. The general check-up does not comprise spirometry test.

- Based on the general check-up result and diagnosis, GPs commonly refer patients to pulmonary specialists.
- Pulmonary specialist makes decision to test lung function.
- The spirometry test is operated by technicians, not by the pulmonary specialist.
- Based on spirometry result done by the technicians, pulmonary specialist decides on specific treatment.

Type 2: respiratory patient with historic of or doubt about lung disease symptoms

- Patient visits pulmonary specialist.
- Pulmonary specialist makes decision to test lung function.
- The spirometry is operated by technicians, not by the pulmonary specialist.
- Base on spirometry result done by the technicians, pulmonary specialist decides in favour of specific treatment.

8 CONCLUSION

The research can be concluded with several pieces of information and data in regards the healthcare in Vietnam.

In terms of political outlook, it should be kept in mind that Vietnam is a communist country where argument and dissent are not welcomed. However, the political situation in Vietnam is quite stable and restrictions on trade in the country have been eliminated gradually since the country joined WTO in 2007.

In terms of economic outlook, the annual GDP growth rate is significantly even though the growth rate is quite low compare to the rest countries in Asia. The income per capital is still low. Corruption and insufficient transparency in this country remains a major problem which cause its economic status to be mostly unfree. Despite mentioned drawbacks, Vietnam is an attractive market for foreign company to invest in. Moreover, the medical device industry is developing; average growth rate is estimated to reach up to 20% by 2020. The domestic medical equipment market relies massively on imports due to the fact that the local firms can currently manufacture only several basic medical devices.

In terms of social outlook, Vietnam is a country with high population. The rising average life expectation would lead greater demand of medical equipment in the future. The purchasing power and demand for high quality services in Vietnam is increasing. For example, in 2015, about 40,000 Vietnamese spent approximately 2 billion USD for healthcare abroad due to the lack of quality product and services in domestic. The percentage of male smoking in Vietnam is quite high. The government is striving to improve on the country's healthcare performance; however, the overcrowding of urban hospitals and deficiency of competence doctors remains the major obstacles of healthcare industry in Vietnam.

In terms of technological abilities, Vietnam is well-known for outsourcing of engineering services and software development services. Moreover, it also gained worldwide prestige in science and technology sectors. On the other hand, the infrastructure became obsolete and Science and Technology fields are deficient in advanced technology and sophisticated infrastructures. The level of production efficiency is quite low. The domestic companies currently do not acquire sufficient competence for producing sophisticated medical equipment.

In terms of legal requirements, legal formation is currently a large obstacle to the development of medical equipment market. Tax in regards administration is very time-consuming. Also, there are no available official detailed and comprehensive guideline for custom of trading. However, the government is striving to promote the import in medical devices products. The VAT rate is 5% and the import tax rate is 0% for spirometry product.

In terms of environmental aspects, the environmental awareness of Vietnamese people is quite poor. Pollution is a major problem in big cities; air pollution significantly caused by transportation. Also, environmental pollution causes an increase of respiratory diseases in Vietnam.

Moreover, the results of interviews with two experts shows more information that cannot be generated from existing sources. First of all, the percentage of patients who are diagnosed with asthma disease is 4.1 - 5% and with COPD is 4.2 - 4.3%. Insurance coverage for spirometry testing is from 6-10 euros. Leading company in the spirometer industry in Vietnam is Koko – a United States headquartered company. In addition, after-sale-services and educational approaches are keys success in customer relationship management.

Vietnamese medical device industry is developing. Also, the fact that there is a considerable demand for spirometer in Vietnam; this information is generated from both secondary and primary data. In addition, restriction of national government on medical devices has been reduced. Foreign medical equipment manufacturers can manage their own distribution organizations and activities in Vietnam. Import tax rate for spirometry is 0%. Furthermore, the number of final customers in Vietnam is quite high (approximately 18.2 million people). In conclusion, the basic results of the desk research and the interview with two physicians show that the demand for spirometer in Vietnam is high and Vietnam is considered as a potential market for Medikro to sell their product into.

9 DISCUSSION AND REFELCTION

Information of a study must be a formal and where proof exists. It should be gathered from reliable sources, if not, it can be considered as a fictitious research. Validity and reliability, therefore, are initially a truthfulness factor of research. (Morse et al. 2002.) Sources of information used in this thesis are from books, market investigations, periodicals, the Chambers of Commerce, government institutions, healthcare institution; therefore, the output of this thesis is fairly reliable and applicable.

Olivia (2011) believes that the reliability of answers from participants can be affected by the privacy level of questionnaires, which is the limitation of the interviewing process. In this research, questionnaires are about the general information, statistic and data of the market. The privacy level of the questions is quite fair. Therefore, the answers from respondents are considered fairly reliable. Reliability and validity of this study is accomplished thanks to a pilot study; pilot research is conducted prior to the launching of interview to test the questionnaire, to assure that the physicians completely understood all the questionnaire and to limit the inaccuracy of primary data collection.

After generating information of the country specific framework regarding health care, specifically regarding spirometry, it is possible to conclude that Vietnam might be viable for Medikro's product. However, there are certain points that need to be considered prior to the decision of accessing to this market; those are these followings:

- Due to the fact that tax as regards administration is very time-consuming, be well-prepared for dealing with administration tasks.
- Corruption and lack of official detailed and comprehensive guideline from custom remain a major complication. Therefore, be well-prepared for legislation that probably not be transparent and conditional on conflict clarification by various local authorities. Moreover, the company should ensure that consult local advisors.

Focusing on the Vietnamese laws and regulation may result in a trouble-free access to this market. In addition, after-sale-services and educational approaches are keys success in customer relationship management. Also, indirect export and joint

ventures with domestic firms might be considered as a mode of operation. Finally, there are two remarkable trade fairs celebrated in Vietnam in which Medikro may concerns; they are Pharmed & Healthcare Vietnam and Vietnam Medi-Pharm Expo.

This study is accomplished with the deficiency in data sources from local distributor who might be potential partners of Medikro. Moreover, as mentioned in the introduction, after accomplishing desktop research, the thorough analysis of the market should be done. Therefore, I suggest that Medikro continues with a more profound and extensive analysis Vietnamese market with local professional team for more detailed and comprehensive guideline. The decision on entering the Vietnamese is necessary made in consultation with local advisors.

Several challenges arose during the process of conducting this study. However, all the difficulties contribute to the author significant experiences. First of all, the author learnt how to observe and analyse both internal and external environment. Moreover, the writer gained knowledge of the essential role of market research in the internationalization process. Moreover, the research part helped the author to develop the ability to conduct a market research on the basic level, especially in the B2B marketing and the knowhow in analysis data and qualitative research. Finally, the essayist knows how to assess the competences and skills of the companies that are developing their business in the international markets and how to support organisations for internationalisation.

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