

**MEDICAL E-LEARNING COURSE IN FRANCE FOR  
HEALTHMIND CONSULTANT**



**A THEMATIC PAPER SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF MANAGEMENT  
COLLEGE OF MANAGEMENT  
MAHIDOL UNIVERSITY  
2017**

**COPYRIGHT OF MAHIDOL UNIVERSITY**

Thematic paper  
entitled  
**MEDICAL E-LEARNING COURSE IN FRANCE FOR  
HEALTHMIND CONSULTANT**

was submitted to the College of Management, Mahidol University  
for the degree of Master of Management

on  
September 22, 2017



.....  
Miss Donlaporn Chenimit  
Candidate

.....  
Assoc. Prof. Astrid Kainzbauer,  
Ph.D.  
Advisor

.....  
Asst. Prof. Randall Shannon,  
Ph.D.  
Chairperson

.....  
Duangporn Arbhasil,  
Ph.D.  
Dean  
College of Management  
Mahidol University

.....  
Assoc. Prof. Gerard Tocquer,  
Ph.D.  
Committee member

## ACKNOWLEDGEMENTS

This thematic paper would not have been possible without the support of many people in so many ways.

I would like to express my appreciation to Asst. Prof. Pornkasem Kantamara, who give me the great opportunity to go Toulouse. This experience such a good memorable and it teaches me in many ways. I also would like to thank Asst. Prof. Astrid Kainzbauer advisor, for her useful guidance, support, and encouragement with the excellent atmosphere throughout this paper. Without her valuable assistance, this work would not have been completed.

In addition, I would like to express my gratitude to my family, friends and my colleagues for their support and understanding during I conducted this research. This project cannot be run smoothly and as fast as planned without their collaborations and encouragements.

Donlaporn Chenimit

**MEDICAL E-LEARNING COURSE IN FRANCE FOR HEALTHMIND CONSULTANT**

DONLAPORN CHENIMIT 5849029

M.M. (GENERAL MANAGEMENT)

THEMATIC PAPER ADVISORY COMMITTEE: ASSOC. PROF. ASTRID KAINZBAUER, Ph.D., ASST. PROF. RANDALL SHANNON, Ph.D., ASSOC. PROF. GERARD TOCQUER, Ph.D.

**ABSTRACT**

HealthMinds is a consultant company that is based in India. The company wants to expand the market by entering France because they foresee the opportunity. France is a hub of international students and it has good reputation in education especially in science and technology. Since the company is very new to the market, this paper will focus on macro environment and business attractiveness in medical e-learning program.

KEY WORDS: France/ E-Learning/ Medical

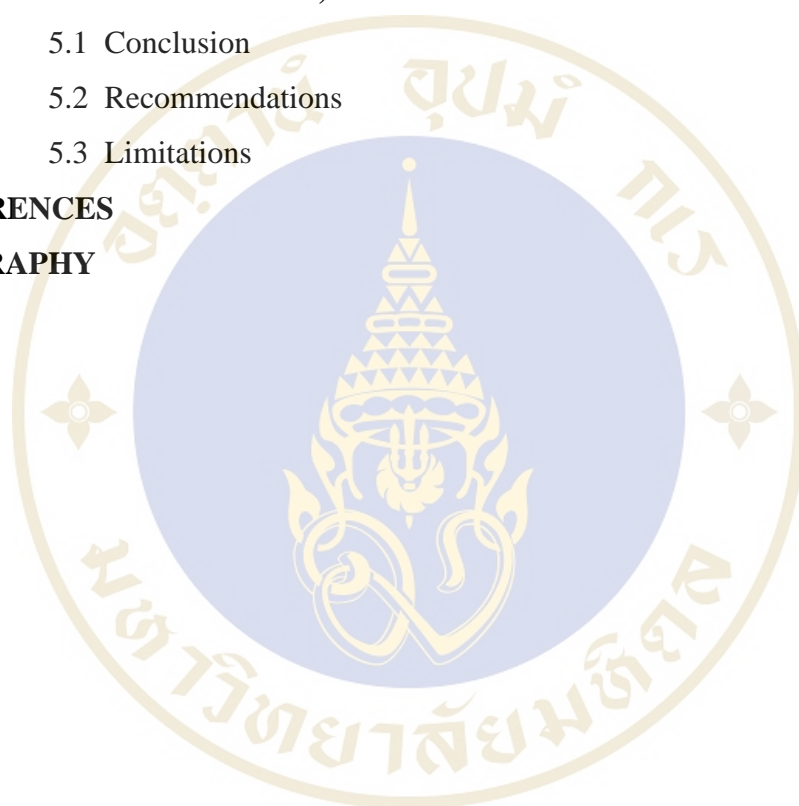
32 pages

## CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>LIST OF FIGURES</b>	<b>vi</b>
<b>CHAPTER I INTRODUCTION</b>	<b>1</b>
1.1 Background	1
1.2 Problem Statement	3
1.3 Research Objectives	3
1.4 Research Scope	4
<b>CHAPTER II LITERATURE REVIEW</b>	<b>5</b>
2.1 French Educational System	5
2.2 History of E-learning	9
2.3 Trends of E-learning	9
2.4 Types of E-learning	11
2.5 The use of E-learning in education	11
<b>CHAPTER III RESEARCH METHODOLOGY</b>	<b>13</b>
3.1 Data Collection Method	14
<b>CHAPTER IV FINDING AND DATA ANALYSIS</b>	<b>15</b>
4.1 Analysis PESTEL	15
4.1.1 Political Aspect	15
4.1.2 Economic	16
4.1.3 Social Aspect	17
4.1.4 Technology Aspect	20
4.1.5 Environment Aspect	21
4.1.6 Legal Aspect	21
4.2 Analysis Five Forces framework	22
4.2.1 Industry Rivalry: Who are the competitors	22
4.2.2 Power of supplier	23

## CONTENTS (cont.)

	<b>Page</b>
4.2.3 Power of buyers&	24
4.2.4 Threats of substitute	25
4.2.5 Threats of new entrance	26
<b>CHAPTER V CONCLUSION, RECOMMENDATION AND LIMITATIONS</b>	<b>27</b>
5.1 Conclusion	27
5.2 Recommendations	28
5.3 Limitations	29
<b>REFERENCES</b>	<b>30</b>
<b>BIOGRAPHY</b>	<b>32</b>



## LIST OF FIGURES

Figure	Page
3.1 Conceptual Framework	13
3.2 Conceptual Framework	14
4.1 Medical graduates per 100,000 Population, 2009	18
4.2 France in comparison with India	20



# CHAPTER I

## INTRODUCTION

### 1.1 Background

HealthMinds is a small Indian startup. The company provides healthcare consulting services and it is based in Bangalore. Dr. Chinmaya P Chigateri and Shubhangini C Chigateri established the company in February 2012. The mission of the company was to enable organizations in healthcare to conduct high-quality medical research. This service provided a lot of essential supports to many organizations with many potential analytics and scientific publication processes which included a medical content development. Moreover, the service included assistance in filing patents for intellectual properties. Recently, the company has extended its service to online mode.

HealthMinds provides four core services, which are data analysis & research trajectory (DART), medical & digital promotion (MEDIPRO), E-learning and Medical Content Writing (EDURX), and the 3 Steps Ahead. DART is a data analysis and writing service for scientific journals and scientific publications. Under DART, there are eight features, which are 1) bio-statistical analyses of research and public health data, 2) manuscript development and original research article, 3) case report, abstract and conference presentation, 4) grant proposals, 5) public Health and policy, 6) scientific books and chapters, 7) dissertations and thesis, 8) slides and poster presentation.

The second service that HealthMinds provides is medical & digital promotion (MEDIPRO). MEDIPRO consultancy program is paying particular attention to marketing activities and creating awareness mainly for pharmaceutical industries, hospitals, and healthcare professionals through its development and production of materials that are related to medicine or healthcare. The service varies with patient education materials, some of which are videos, brochures, news articles and books. This service program develops an online platform and a learning program for training salespersons. It could allow companies who use this program to enhance and professionalize their sales teams in each particular field of work related to each industry they are dealing with. For instance,



companies can conduct advertorial write-ups to sell medical products. Moreover, by applying the program, companies could develop their own content specifically in medicine for their websites, blogs, and any kind of social media, which at the same time could provide digital marketing solutions.

The next service is e-learning and medical content writing (EDURX). The service offers the latest online contents about medicine and science for online platforms. There are eight services provided under EDURX as the following: 1) conducting blended e-learning courses, 2) making educational videos, 3) giving conference presentation, 4) providing in-house trainings, 5) conducting webinars, 6) creating knowledge banks, 7) hosting and customizing learning management system, and 8) collaborating learning platforms.

The 3 Steps Ahead is one of the programs provided by HealthMinds. 3 steps ahead is an online course that provides fundamental knowledge of writing scientific research and publication for Bachelor's, Master's and PhD students. This course contains a module-based learning package, which could be applied to a wide range of disciplinary and research settings. Participants will get opportunities to learn about the principles of effective writing, content management, scientific composition, and formatting. The training provides introduction to all different types of scientific articles, selecting an appropriate journal and issue in publication. It also deals with applications of scientific writing in mass media, which enables professionals to develop strong writing and journalistic skills.

At the beginning of this company's project, the company wanted to extend the business to Singapore because Singapore had advanced technology in medicine and it was the medical hub of Southeast Asia. However, as the competition was very intense in Singapore, the company decided to expand the market to European countries and France was chosen as a target country because of its high educational standard and the rising trend of online education.

France is well-known for its best educational system with a low cost of living. This is the reason why many international students want to study in France. Apart from that, many universities in France provide good facilities and financial supports to students. For instance, a research center at Paris-Sud University has 2,500 teacher-researchers and researchers across 78 laboratories. The university also partners with well-known

national research organizations such as Inserm, CEA, CNRS, Inria and Inra. Another factor that impacts the decision to enter France is the growth of online education in Western Europe, which is expected to grow 5.8% annually (Docebo,2014). Also, the company sees the opportunity to grow in outsource for e-learning content. Moreover, it was a challenge for the company to introduce s medical e-learning course to France since s medical e-learning course in France was not popular. Another interesting reason to enter the French market was the proportion of money spent on healthcare. As (Salon entre Pros, n.d.) mentioned, “The healthcare sector is estimated to 12.5% of economic activity in France. It included market, non-market services and products, pharmaceutical and other activities. This sector employs 2.5 million people, almost 9.9% of the employment in France. The production of the sector was 235 billion Euros that is to say 7.6% of the national production”.

The contact person for this project's name was Swetha. She was the marketing and sale representative of the company. We coordinated with her and kept her updated with presentation schedule and work in progress.

The roles of the researcher of this project started with several analyses about the external environment of the country and the healthcare industry itself.

## **1.2 Problem Statement**

To find out whether it is possible to operate an e-learning course for medical universities in France

## **1.3 Research Objectives**

- To identify the external factors that influence the medical e-learning in France and identify market attractiveness
- To provide strategic plans for penetrating the market in France

## 1.4 Research Scope

This research focuses on four important aspects, which are macro environment, industry, competitors and recommendation for the company.

The tools that the researcher used to analyze the external environment are PESTLE and Five forces. PESTEL gives an insight of the whole environment from different aspects that need to be kept in mind all along developing the strategy. The Five Forces tool helps determine the attractiveness of the French market analysis on competitors.



## **CHAPTER II**

### **LITERATURE REVIEW**

An online education is another industry that is growing every year. In 2015, the market value of an online education was worth \$166.5 billion and expected to reach \$255 billion by 2017 (Yu, J., & Hu, Z., 2016). The key factor that affects the growth was flexibility in time and places, which resulted in convenience for both students and teachers. Secondly, it can reach a wider range of students with no geographical boundaries. Lastly, it is cheaper comparing with a traditional classroom. As mentioned previously, an online education has replaced traditional classrooms in some areas such as language courses, business-related subjects and scientific courses. For example, the students who are interested in psychology could apply for an online foundation course of psychology for free via Coursera website. On the other hand, not every course can be learned online. Medical studies are ones of the fields that have controversies about the effectiveness between learning in a traditional classroom and learning in a blended online setting.

At the beginning of this chapter, the researcher described about French education structure in order to make readers understand its structure. Then, the readers will find information about the history of e-learning, trends of e-learning, types of e-learning, and the use of e-learning respectively.

#### **2.1 French Educational System**

France is a country with a good reputation for its own education system where students could allow themselves to study whatever they want. They have received financial support from the government. Even though it sounds positive, everything comes with a price. French parents start sending their kids to kindergarten (Ecole Maternelle) at age 3. The aim of sending the kids to kindergarten is to prepare their kids for elementary schools by developing their potential readiness and learning to live with others. Going

to kindergarten, however, is not compulsory. The kindergarten system in France is divided into three levels.

- La petite section de maternelle ou PS
- La moyenne section de maternelle ou MS
- La grande section de maternelle ou GS

Even though the whole process normally lasts three to four years, the completion time depends on each pupil's learning progress. For instance, pupils with good learning progress can complete the school within two years. Besides the learning progress, the decisions of readiness for elementary schools also come from a teacher's council (*conseil des maîtres du cycle*), the school director, the pupils' teachers and a psycho-pedagogical group. Also, parents are allowed to go against schools' decisions. In case there are pupils who fail the class, they are not required to repeat a previous class and can continue studying at their own pace. The curriculum of kindergarten is focused on five areas, which are appropriating language and getting ready to read and write, becoming a pupil, corporal movement and expression, discovering class, seeing, feeling, imagining, and creating.

It is an obligation for children from 6 to 16 years old to get an education in elementary schools (*enseignement élémentaire*). The duration of elementary schools takes five years and is split into two halves. The first two years are purposing on a basic learning called *apprendissages fondamentaux* where the focus is on the basic skills of reading, writing and mathematics whereas the last three years prioritize consolidating learning. The curriculum for both years emphasizes on French, history, geography, civil studies, mathematics, science and technology, physical education, sports, arts, craft, music, and the introduction of a first foreign language. There is no test for this stage.

After graduating from the elementary schools, the students have to attend secondary schools. The secondary school is divided into two levels, which are lower secondary education (*enseignement secondaire du premier cycle*) and upper secondary education (*enseignement secondaire du deuxième cycle*). The lower secondary education or college is eligible for students who complete elementary schools. All students in the education need to take a national test called *diplôme national du brevet (DNB)* in order to enter the upper secondary education. The students who pass the exam will receive *Diplôme National du Brevet (DNB)*. The students who fail the exam will receive a

school-leaving certificate called *le Certificat de Formation Générale (CFG)*. DNB will be a guarantee of the access to study in the upper secondary education while the students with CFG certification might need a luck to go to the upper education due to the limited number of seats available at schools.

Once students are in the upper secondary education or lyceé, they have to choose one field of their study which can be academic, technological or vocational fields. Each field focuses on each different subject. The choice determines the type of high-school graduation exam, or “*baccalauréat*”. “Students will take part into some extent of higher education that is opening to them” (Lundberg, 2014). The first stream is academic. It can be categorized into three concentrations, which are literature (L), economy and science (ES), and scientific (S) under academic stream. The focus subjects of each concentration are as the following:

- Literature (L) focuses on foreign languages, history, philosophy, geography, arts, and French literature.
- Economy and Science (ES) highlights on history, geography, and mathematics.
- Scientific subject (S) puts more emphasis on mathematics, physics, chemistry, engineering sciences, and biology

The exam will be based on students’ choices. When the students pass the exam, they will earn a different type of certification depending on streams, which are academic, vocational and technology. The students who choose to study an academic stream will obtain *diplôme du baccalauréat général* general academic diplomat. The students who choose to study a technology one will receive *diplôme du baccalauréat technologique*, and the last certificate for those who choose a vocational study is *baccalauréat professionnel*. The students who pass *baccalauréat* will go to universities. The students who fail the examination still earn a certificate for graduate high school or *certificat de fin d’études secondaires*. In addition, the students who register for vocational programs may receive the *Certificat d’Aptitude Professionnelle (CAP)* and the *Brevet d’Etudes Professionnelles (BEP)* which can be used as a ticket to career opportunities in chosen industries such as accounting, cooking, designing, etc.

The examination takes several days to complete. It includes written, oral, and laboratory tests. In addition, the examination includes several subjects varying

from French literature to math or philosophy depending on the study field (Lundberg, 2014). For instance, the students who choose to study science(S) need to decide which specialized subjects they want to take. The subjects can be physics, chemistry, biology and earth science or engineering science or biology-ecology. After passing the test, the students who want to study at grandes écoles or France's version of the Ivy League have to spend two years on their chosen fields in préparatoire. Préparatoire or prépa is a French word for special schools where college students are trained on specific subjects such as science, engineering, medical, architecture, law and business. After finishing two years, the students need to pass the examination (concours) otherwise they have to repeat another year for the second time. Unfortunately, the students who cannot pass the examination for the second time are required to drop out of prépa and change their major.

Medicine is one of the most competitive fields. The study is divided into three cycles. The first cycle lasts two years (First cycle of Medical studies: PCEM: Premier Cycle d'études Médicales"). In the first year, medical students study core medical education subjects such as physics, biophysics, chemistry, anatomy, and embryology. At the end of the year, the examination called Numerous Clauses is given. There is only 15% to 20% of students passing the examination and continuing their second year. The second cycle (Second Cycle of Medical Studies: DCEM : Deuxième Cycle des Etudes Médicales) lasts four years. At this cycle, the students receive formal and practical trainings on various pathologies segmented in modules. For those who want to continue the third cycle, it requires fourth-year students to complete the second cycle and pass the theoretical course exam with certified training periods from a hospital as well as have attended in required seminars. The third cycle includes two programs of study, general medicine or other specialties, both of which lead to a Diplôme d'Études Spécialisées (DES: Specialised Studies Diploma "Diplômes d' Études Spécialisées"). The number of study years also depends on specialties. For instance, general medicine takes four years to complete while dentistry takes five to six years to complete the program.

## 2.2 History of E-learning

Before going to the history of e-learning, we need to understand the definition of e-learning first. According to elearningnc, a website, E-learning is defined as “learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online”. (What is E-learning, n.d.). Many people would think that e-learning was introduced after the introduction of personal computers. Actually, they were wrong. E-learning was invented in 1940’s by a teacher.

The development of e-learning started in 1940s by Isaac Pitman. It was developed from the way he taught his students in shorthand via correspondence. Once assignments were finished, the students needed to submit to Pitman, and then he sent more assignments to the students via the new penny post system. (n.d.). Later in 1954, a professor at Harvard named BF Skinner created a “teaching machine”. The machine allowed schools to customize courses to their students. However, it was not the computer-based training program. The real computer-based training program was introduced in 1960 known as PLATO Programmed Logic for Automated Teaching Operation (n.d.).

In 80s, a personal computer was introduced. The introduction of the computers brought the excitement to learners because they allowed individuals to learn on particular subjects and improve specific skill sets from their homes. After the following decade, virtual learning environments began to truly thrive, with people gaining access to a wealth of online information and e-learning opportunities. Until 1990s, many schools and universities had started implementing the system and developing their own contents, which were called Learning Management System.

## 2.3 Trends of E-learning

Nowadays, e-learning is a growing trend throughout many countries around the world. Because of its convenience, e-learning requires only two things: Internet and laptops or personal computers and you can learn from any parts of the world. At present, there are several courses that are provided through an online channel such as Massive Online Open Course (MOOCs) and Selective Open Online Courses (SOOCs) (Lenotti, 2017). A lot of Universities get in to the E-learning business by using non-profit



model such as <http://online-learning.harvard.edu/courses>. The main objective is to leverage their knowledge. The future shines for MOOCs because this trend still keeps growing in many countries, and there are 2 billion potential learners from around the world. The open courses gather online courses from many universities around the world. There are many courses opening online such as medicine & pharmacology, business, arts, physics, etc. There is nothing free in this world, students have to pay for some courses. For example, if learners need certificates, they need to pay extra fees for the certification. Also, the tuition fees vary depending on the chosen courses.

Apart from MOOC and SOOC, there are other trends of e-learning that might be useful for future learners such as microlearning, gamification, mobile learning, and wearable technology training (Coffey,n.d.) which are called xAPI (Tin Can). The definition is defined as “a brand new specification for learning technology that makes it possible to collect data about the wide range of experiences a person has (online and offline)” (n.d.). “Tin Can is a Learning Record Store (LRS) capable of tracking a learner’s progress as they engage in traditional, formal learning as well as informal, social learning” (Coffey,n.d.).

Learning does not need to be boring. It can be fun and interesting when it is game-based. Gamification is another trend that is growing according to docebo. The concept of gamification according to docebo report is “to use game theory and game mechanics in non-game contexts to engage users in solving problems” (2014). The main objective is to motivate learners, so that they are capable of performing better. Gamification in eLearning follows exciting technologies and innovations within the gaming industry. Imagine an even more realistic learning experience potential using virtual and augmented reality.

Wearable Technology or wearable gadgets are another technology that is widely used. The technology is referred to a term “that covers all types of technologies that are worn on the body” (KARIM, 2014) and virtual reality is one of them. Virtual Reality technology is accepted and used in order to increase student engagement and prepare students to deal with 3D simulation, especially in medical field, for example, the collaboration between Western University and VR company Zspace to build the virtual anatomy lab where students can practice and interact with realistic objects (Gaudiosi, 2015).

## **2.4 Types of E-learning**

There are two main types of E-learning which are synchronous and asynchronous (G,n.d.). Synchronous e-learning is a real time e-learning in the Internet via social media such as chat and video conference where teachers and students can interact with each other immediately like in a real classroom. For instance, students can send instant messages to ask their teachers right away. Moreover, students in a synchronous e-learning classroom can discuss with other classmates in the same course. The advantage of synchronous e-learning is that it allows students to have more interaction in order to avoid feeling of isolation. On the other hand, synchronous e-learning classroom has a fixed schedule of each class. Therefore, it is not suitable for students who live in different continents and students who work (Arkorful, 2014). Unlike synchronous e-learning, asynchronous learning is carried out even when the students or teachers are offline (Arkorful,2014). For this type of e-learning, students have to complete their coursework, assignments, and quizzes on their own. The students have to catch up with the curriculum at their own pace.

## **2.5 The use of E-learning in education**

E-learning can be categorized into several types and it can be differentiated by ways of using in education. There are three main categories of e-learning, which are currently used. The first type is classroom courses. Classroom courses are courses that involve computer usage or technology usage such as laboratory and software design. The classrooms are also similar to traditional classrooms where a number of hours spent and face-to-face activities such as laboratories are required (Sener, 2015). The next category of e-learning usage is a blended classroom or hybrid. Hybrid is the combination between the traditional classroom and online activities. For the hybrid, students are needed to be present in the classroom for a discussion session lesser than traditional classrooms. For instance, students in the traditional classrooms have to come to the class regularly while students in blended classrooms need to come to the class for 2-3 times for the whole courses. The purposes of blended classrooms are to increase flexibility for students in relevant programs and improve efficiency in the use of limited classrooms. The last one is an online classroom where all activities are done online including discussions,

examination, assignments, etc. The online classrooms eliminate limitations in geographical location and financial issues because anyone with Internet access can learn what they are interested in without paying any fees.

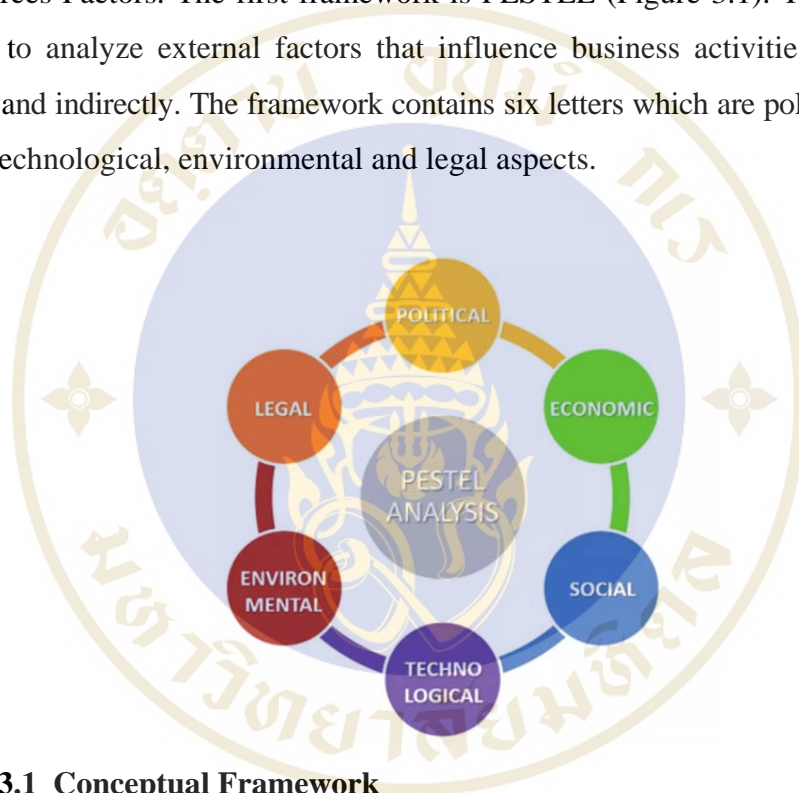
For this chapter, the researcher explained how French education system goes at each stage and what examination students need to pass in order to graduate from school. How exam result influences field of study in universities and how medical students study were also explained. In addition, the researcher added information about e-learning, so readers could understand the concept and comprehend why e-learning plays an important role in education.



## CHAPTER III

### RESEARCH METHODOLOGY

Since the company is very new to French market, it is essential to understand the macro environment of the country and industrial intensity by using PESTEL and Five Forces Factors. The first framework is PESTEL (Figure 3.1). The framework is applied to analyze external factors that influence business activities in the country directly and indirectly. The framework contains six letters which are political, economic, social, technological, environmental and legal aspects.

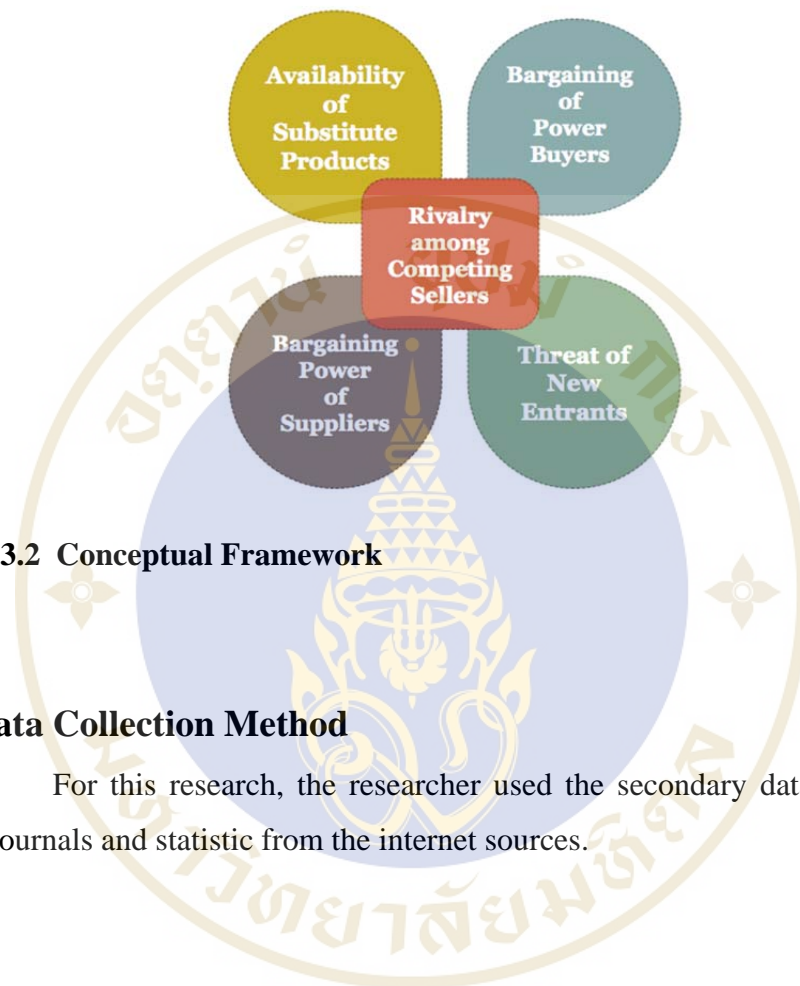


**Figure 3.1 Conceptual Framework**

The process of using PESTEL starts with gathering information about external factors that are related to each element. Then, the obtained data is analyzed whether there are any opportunities or threats and they are interpreted into strategic plans to enter the market.

The next framework is Five Forces model as shown in figure 3.2. According to strategicmanagementinsight, a website, it was stated that “These forces determine an industry structure and the level of competition in that industry. The stronger competitive forces in the industry are the less profitable it is. An industry with low barriers to entry,

having few buyers and suppliers but many substitute products and competitors will be seen as very competitive and thus, not so attractive due to its low profitability” (Jurevicius, 2013).



**Figure 3.2 Conceptual Framework**

### **3.1 Data Collection Method**

For this research, the researcher used the secondary data collected from online journals and statistic from the internet sources.

## **CHAPTER IV**

### **FINDING AND DATA ANALYSIS**

This chapter represents the findings from analyzing PESTEL and Five Forces framework respectively. The result of findings started with macro environment of France by using PESTEL framework. The result from PESTEL analysis was that the government played an important role in education system because the government was the one who controlled all universities in France including expenditure on education. Moreover, the government had policies to support France SMEs. Not only government that could cause problems to the company, but differences in cultures between two countries could lead to chaos in a working process. Thus, it was tough and challenging for the company to enter France and implement the project. The findings on attractiveness from Five Forces analysis showed that the strongest competitive force was clear from rivalry competitors. There were low barriers to enter while the bargaining power of buyers was relatively high due to many providers in the same business. Thus, the overall attractiveness of the French market was low to medium. HealthMinds should be aware that their e-learning services cannot be substituted by conventional medical schools. In order to survive, the company could be an exclusive service to those who would like to get an extra training.

#### **4.1 Analysis PESTEL**

##### **4.1.1 Political Aspect**

Political environment is a critical factor for business. It is important for companies to understand political situation in a country where they want to open the business because government policies can be threatening or beneficial to the business. Especially when the government control and has a legitimate authority over the system like the education system in France.

In order to enter the market, it was necessary for the company to understand how schools and universities were governed. French education system is controlled by the Ministry of National Education (*Ministère de l'Éducation nationale, de la Jeunesse et de la Vie associative*) and the head of the ministry is the Minister of National Education. The system is highly centralized and rigid. The Ministry of National Education has an authority to make decision on study programs, timetables, school hours and the allocation of resources such as budgets and teachers.

Another concern on political issue in France towards the education system was the limited number of medical students of each year. Only 8 percent of the total international students are allowed to study in medical field in France. In order to be accepted, international students have to accept one condition that the rank of the last foreign student is equal to or higher than that of the last French student admitted. The students cannot choose their specialty, because each specialty is ranked by the examination score.

Despite the hierarchical education system, HealthMinds needed to compete with domestic competitors because French government had launched a program to support local start-ups. The program was called a new face industry of France. The aim of this program was to build, strengthen the future industry, improve production competitiveness, and reconstruct organizational structures for French companies. Apart from the government campaign, French government tried to promote the use of e-learning. For example, working with start-ups on establishing applications, designs and connected devices (such as tablets) for educational purposes.

It was not easy for HealthMinds to enter the market since start-ups had many benefits supported by government such as financial aid in terms of tax and working benefits that attracted entrepreneurs to explore innovative ideas. Moreover, these provided resources were not limited to start-ups to grow their business in France.

#### **4.1.2 Economic**

Economic factors impact on the company's strategies. Understanding the economy can reflect economic situations in countries such as consumers' demands, purchasing power, interest rates and exchange rates. Lately, the economy in France was not as good as it should have been due to the terrorist attacks in many cities such

as Paris, Rouen, Toulouse, Marseille and Bordeaux. They scared off the tourists who were ones of the industry that generate a large amount of money to the country. Since the attack in 2016 Paris, French had lost 750 million Euro on tourism industry. However, after the president election, the economy of France was forecasted to grow again.

France was the world's 5th largest economy and 2nd largest economy in Europe. The current GDP was \$2.6 trillion and the expected annual growth in 2019 was 1.4%. The growth of economy was relying on tourism, manufacturing and pharmaceutical sectors which result in the recovery in labor market. Even the country had loss money from tourism industry, French government believed that education was an essential element of the country. Therefore, the government expenditure on education was higher than the average in EU. In 2014, 5.5% of GDP expenditure was spent on education where the average expenditure in EU was only 4.9% (European Commission, 2016). The improvement in economy may influence the expenditure allocated to support education.

#### **4.1.3 Social Aspect**

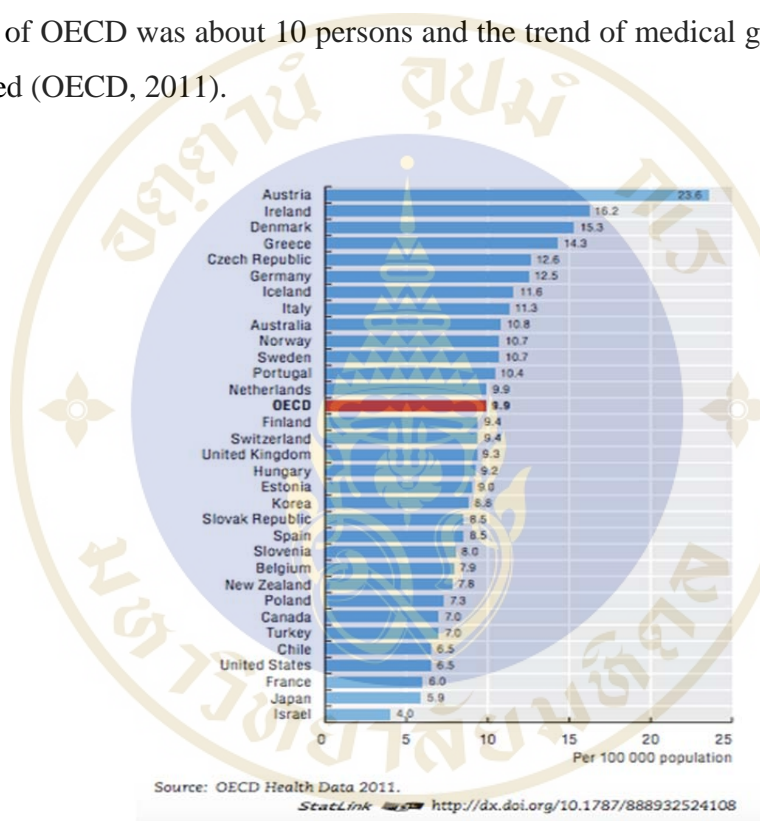
Social factors are related to changing in society. These changing are demographics, cultures, lifestyle and education. These factors can impact the business on how consumers buy and perceive a product or service. The increase in ageing population was another demographics that many countries are concerned about. Many countries such as Japan, Thailand, and Singapore were facing ageing population problem because the new generation preferred to be single. Even the married couples did not want to have a child because it cost a lot of money and women had a fertility problem. These problems resulted in the lower number of birth rate. In the near future, we will not have enough labor available to work and the government has to spend money to take care of these groups of people. Therefore, having enough doctors is crucial. However, the number of doctors goes in the opposite direction with the number of old people. It is therefore important for every country to provide sufficient doctors.

France was historically Europe's most populous nation and the demographics as of the 1st of January 2017; almost 67 million people lived in the French Republic (66,991,000). The life expectancy in France was 84 years and the birth rate was 1.93 in 2015. The result of the lower birth rate with high life expectancy determines possibility



of French becoming a country of ageing society. Therefore, France needed to be prepared with sufficient medical stuffs in order to support this group of people.

France was ranked as the 18<sup>th</sup> best OECD (Organization for Economic Co-operation and Development) Country in terms of Education and ranked as the 3<sup>rd</sup> most attractive country for foreign students according to UNESCO (France is the 3<sup>rd</sup>, n.d.). Despite its best education, France had a problem with insufficient medical stuffs as it was represented in the figure. According to the graph, in 2009 France had the lowest rate of graduate medical stuffs. There were only 6 persons per 100,000 habitats while the average of OECD was about 10 persons and the trend of medical graduation gradually decreased (OECD, 2011).



**Figure 4.1 Medical graduates per 100,000 Population, 2009**

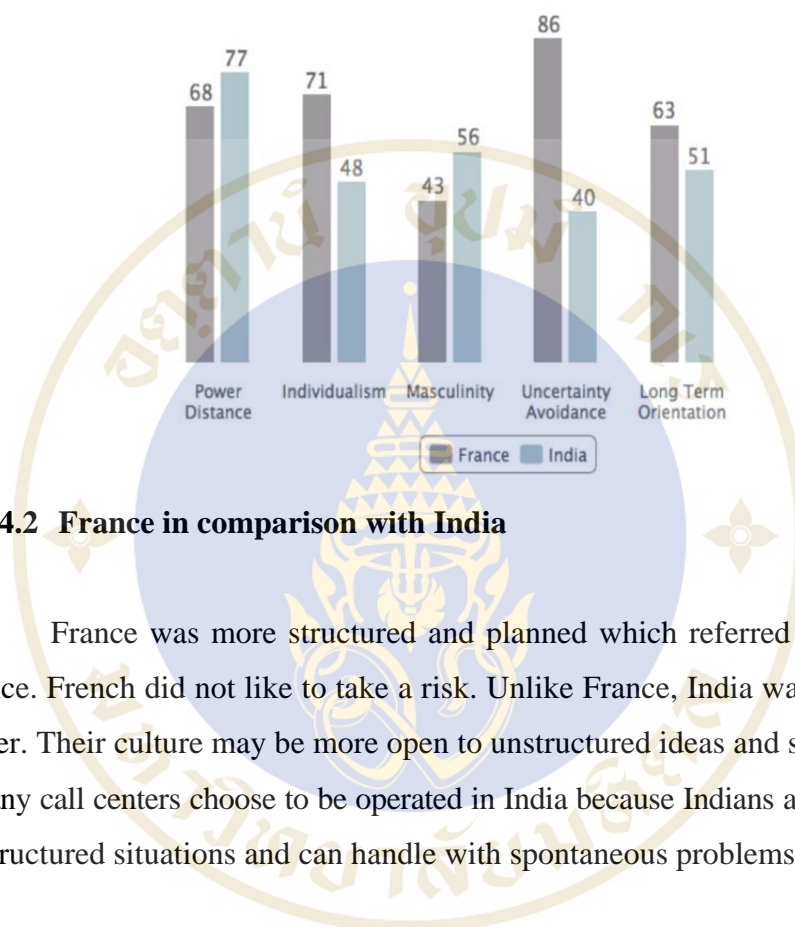
Thus, the country lacked sufficient medical stuffs and the concentration of the stuff was high in Parisian and the southeastern regions (Île-de-France and Provence-Alpes-Côte-d'Azur) followed by other southern region according to France health system report (Chevreul, K, 2015). The researcher also found a similar case from India where medical stuffs are insufficient. To find the solution of the problems, Malini Reddy and Shankha Sengupta conducted the research regarding the use of online mode. They interviewed 17 qualified medical professionals and faculty members using open-ended

semi-structured interview guide. The median age of the group was approximately 37 with an average of 14 years of experience.

According to the case, India had 330 medical colleges and the ability to accept students was approximately 35,000 but this number was not enough to supply doctors for the whole country. Therefore, India would encounter a shortage of doctors by the year 2031. Even the trend of getting to medical institutions has been gradually increasing every year, the institutions could not expand their institutions due to higher additional costs and limited human resources. They thought learning medical via an online channel could be another solution for the problems. Surprisingly, when they read the Medical Council of India's report, the council did not consider online medical education as an alternative solution for the problem. In contrast, the respondents thought that online medium could be beneficial in accelerating the process of learning because e-learning allowed learners to set their own pace of learning and provide the option of revisiting when they needed help. For instance, the students can log in and read all the materials and revise them as much as they need. The project needed collaboration from Medical Council of India's (MCI). The very first step was to include medical online learning as an alternative choice into an annual strategic report and promote the teaching integration between online and offline modes. Then, MCI should provide a guideline to institutions in order to parallel grading and evaluation system with traditional classrooms also provided curriculum structure. MCI also needed to work with premium information and information and communications technology (ICT) providers in order to improve an infrastructure problem such as bandwidth. The expected result was to increase the doctor-population ratio and to reduce the rate of deficiency of skilled professionals in remote areas by "ensuring the availability of quality medical education and service to all strata of society at affordable options." (Malini Reddy, Shankha Sengupta 2012).

Another concerning issue was cultural differences between French and Indian. The researcher used Hofstede frameworks to analyze cultural differences. According to the figure, the result showed similarity in power distance of both countries. The implication of high power distance explained that both countries were centralized. It had a clear organizational chart where decision was made from the top management level. Subordinates had to obey and respect their supervisors. On the other hand, there were distinctive differences between both countries in terms of individualism, masculinity,

and uncertainty avoidance. French preferred to work as an individual while Indians were collective. Even though France was an individualistic country, people paid attention to the welfare of other people while Indians paid attention to visible symbols of success such as reputation.



**Figure 4.2 France in comparison with India**

France was more structured and planned which referred high uncertainty avoidance. French did not like to take a risk. Unlike France, India was likely to be the risk taker. Their culture may be more open to unstructured ideas and situations. That is why many call centers choose to be operated in India because Indians are more prepared for unstructured situations and can handle with spontaneous problems.

#### **4.1.4 Technology Aspect**

Today, technology is being part of people's lives. The first thing we look at right after we wake up every morning is a mobile phone. People do everything on their phones from checking the weather forecast to shopping via applications on the phone. As the world is connected, people are online 24/7. Technological factors analysis explains how technology impacts business. The examples of technological factors that impact business are the role of the Internet, and the spending on technology research by the government. E-learning is the technology that relies on Internet connectivity. Without them the program could not be accessible and useless.

France had an excellent scientific and technological environment. It was the world's 4th industrial power, one of the world leaders in space technology, in nuclear energy, in computer engineering, and in environmental protection. Furthermore, France was one of the countries that had the best telecommunication in the world. The penetration rate of the Internet was 86.4% with approximately 56 million Internet users in 2016. The government also had a plan to invest 2 billion Euros in Internet infrastructure (very high-speed mobile bandwidth, optical fibre and digital transmission by satellite), to cover the entire country by 2025 according to France embassy website (2014).

French government perceived the importance of having a good infrastructure of communication. They invested a lot of money in expanding the accessibility to every area in the country because they knew that the trend of Internet users was increasing. They needed to be prepared. It was a good start to have infrastructure paralleled with the plan of promoting digital schools in France.

#### **4.1.5 Environment Aspect**

No relevant information on environment factor related to the project.

#### **4.1.6 Legal Aspect**

It is a must for every company to understand the law of a host country before operating the business. Selling one thing in one country could be legal, but illegal in another country. For example, smoking cannabis in Amsterdam is legal but when you bring it back to Thailand it is illegal. For this case, the company wanted to open a business in France. They needed to understand the standard rules and regulation in operating business especially when they had to deal with humans.

France has a strong labor union. It played an important role and was highly influential. Therefore, there were many protests and strikes caused by the labor union around France such as Air France employees strike by ceasing the airline's operation, firefighters protest in Toulouse because they wanted a salary increase. In France, the laws allow employees to work 35 hours per week and the minimum wage is 7.61 euro per hour. Compared with France, the minimum wage in India, where the maximum working time is 48 hours per week, is not as good as that France. Many French organizations promote a short-term contract for employees because layoff policies are

very strict. The president, Mr. Macron, tried to solve the problem by offering a plan to reconstruct France's hiring and firing laws, which include allowing companies to negotiate specific pay deals. Unfortunately, the deal was not satisfying for the union groups, so the negotiation was failed.

For the investors who want to establish a business in France, the corporate tax rate in France is about 33%. French administration system is highly rigid and bureaucratic. Therefore, it might take a longer time to proceed documents.

Overall, PESTEL analysis in France indicated that government was the critical factors in doing business because their policies might have negative impacts on the business due to quota imposed on medical students and budget allocation factors. French economic performance was not as good as expected since the terror attacks had caused the loss of income from tourism industry. The consequence resulted in the slow recovery of economy even the rate of unemployment dropped from 10 percent to 9 percent. Furthermore, a difference in cultures between two countries was a sensitive issue. Therefore, it is necessary for the companies to pay close attention to it if they want to do a business with France. Wrong interpretation in language and/or body postures could lead to a misunderstanding. The analyses could help the companies to understand the macro overview of France better.

## **4.2 Analysis Five Forces framework**

For the next part of analysis, *Five Forces framework* was used to analyze the attractiveness and competitors by starting with industry rivalry, power of suppliers, power of buyers, threats of substitutes and the threats of new entrance.

### **4.2.1 Industry Rivalry: Who are the competitors**

Industry rivalry is giving an approximate number of competitors who are in the same industry as well as their strengths. The intensity in industry rivalry affects how companies attract customers. The more competitors you have, the more aggressive a price cut is.

There were more than 3,000 companies who provided services on e-learning only in Europe. These companies were the main competitors for HealthMinds. The

business was expected to grow steadily. The stage of e-learning in Western Europe was mature but their spending was the world's second largest of buying region for e-Learning products and services (2014). Furthermore, the global e-Learning market was estimated to be \$165.36 billion in 2014 and is poised to grow at a CAGR of 5.08% to reach \$243.8 billion by 2022. The key factors that were favoring the market growth were flexibility in learning, low cost, easy accessibility, increased effectiveness by animated learning, escalation in the number of internet users and growing access of broadband pooled with mobile phones with online capabilities.

Another potential competitor in e-learning business was MOOCs (Massive Open Online Courses) because it had different fields for customers to choose and there are many famous universities from around the world that joined MOOCs such as Stanford, Université Lille 1, etc. Apart from varieties of universities, MOOCs also comes in different languages apart from English such as Chinese, Spanish, and Portuguese. The fees depended on the course that customers applied. Some courses were free whereas some were not.

The industry rivalry was high due to higher number of competitors. Besides, there was a great demand for self-paced e-learning because of its convenience and flexibility (in which learners study at their own pace, without a fixed starting date or regularly scheduled assignment completion dates). Thus, it was a good opportunity for the company to grow the business. On the other hand, the intensity of the competitors would make it hard to operate the business and survive unless the company developed a customizable platform and sold it to the company for internal e-learning program with a good after sale service.

#### **4.2.2 Power of supplier**

Power of suppliers determine how easy it is for your suppliers to increase their prices. If the company has more suppliers, the switching cost will be low and it will be easy for them to switch. On the other hand, if the number of suppliers is limited, it is hard for the company to find alternative suppliers with a lower price. Since the company was a service provider, it was very hard for the company to find professors to teach due to the limited number of professors with specific knowledge.

The main suppliers identified for HealthMinds: Professors/ teachers, administration, software and technology are closely interconnected to form a platform for e-learning. Suppliers to e-learning providers include talented individuals with

programming and system development skills. Especially in medical field where resources were insufficient, it could be a problem for the company to find the professors. Even if they were available, the company had to pay high cost. As a result, the power of supplier was high due to the scarcity of resources.

#### **4.2.3 Power of buyers&**

The concept is about how the bargaining power of buyers affects business. High bargaining power can lead to a cheaper price, better product quality and better service. These reasons can lead to a lower profitability for sellers. In contrast, if the buyers have low bargaining power, the result will go in another direction; less competition and higher profits. There are many determinants that affect power of buyer such as the number of sell vs. the number of buyer, price sensitivity, and the availability of substitute products.

As the French buyers were price sensitive because they were mostly students, Health Minds can find a place in the French market by proposing a very competitive price. The e-learning in this case can come as an alternative for “Prépa” schools that students are obliged to do after their normal lectures in order to understand them better. The cost of a Prépa school in France is about 500 euros /month. Though there are some platforms which provide online courses, they are not offering a very strong e-learning material comparing to Health Minds. In this case, the power of buyer for HealthMinds is low because customers have fewer options and the quality of the content may not be the same as HealthMinds.

There are many companies, hospitals, clinics, and governments that need to implement e-learning. In most countries, healthcare professionals are required by law to take several course credits every year in order to maintain their status as active practitioners. The cost of establishing and maintaining physical training centers, for example, is high. They have to encounter difficulties in meeting the changing demands due to the constantly changing trends in disease treatment, medical technology, and drugs. Also, finding time for training is often problematic, especially for those whose roles are in a hospital or clinic. For these problems, e-learning can be a solution. However, there were plenty of companies that provide the same service as HealthMinds. Moreover, the concentration of sellers was very high comparing with the concentration of buyers

in the market. Thus, customers have high bargaining power. They can lower down the price of the service.

The power of buyers can be low or high depending on several factors that were mentioned above. For HealthMinds, it might be difficult as the customers had high bargaining power towards the price owing to similar businesses operating in France which can be used as substitutes and it is easy for them to contact with the buyers.

#### **4.2.4 Threats of substitute**

The availability of a substitution service or product affects the profitability of an industry. The more available substitute products or services are, the more intense competition in the industry is. When the industry is very competitive, sellers use cut-price strategy to attract customers. The strategy leads to lower profits for companies. On the other hand, the lack of close substitute products makes an industry less competitive and increases profit potential for the firms in the industry.

E-learning is another service that has a lot of substitutes. Scholarly articles, YouTube, educational videos, or medical e-books, in fact the internet itself opens doors to new learning technologies. In France, the conventional medical universities cannot be substituted because French medical education was thoroughly recognized. The cost of enrolment was extremely affordable compared to learning online. So why do students need to pay high prices while they can study the same thing with a lower price together with a subsidy from French government if they choose to learn in the universities?

France's medical tradition was internationally awarded, as exemplified by 13 Nobel prizes for physiology or medicine, and nearly 80 medical firsts were achieved by French practitioners. That is why people still believe that medical study should be learned in a traditional classroom. Learning in the classroom provides students with an opportunity to participate and practice with real professors. This classic classroom is a threat of e-learning.

Threats of substitute for medical e-learning was still low. It takes time for a while until the medical online course is generally accepted and substitutes the traditional classroom because medical students need to understand the content theoretically and practice with real patients. Moreover, people believe that it is better for students to



study in a traditional classroom because students can participate and socialize with other students in the classroom.

#### **4.2.5 Threats of new entrance**

The threat of new entrants creates effect of competitive environment on the existing competitors and influences the ability of existing firms to achieve profitability. A high threat of entry means new competitors are likely to be attracted to the profits of the industry and can enter the industry with ease. New competitors entering the marketplace can threaten or decrease the market share and profitability of existing competitors and may result in changes in existing product quality or price levels.

With the new immigration laws, e-learning provides opportunities for immigrants to learn and get certified online, which increases more potential providers. The need to acquire necessary intellectual and financial capital presents sufficient barrier for organizations attempting to enter the industry. The legal access to a substantial resource of pedagogical and subject knowledge experts in the form of the staff of institutions, copyright laws of the use of third party owning content can be potentially significant barriers to new entrants for e-learning business.

Unless a company could make an agreement with the government for using e-learning in Prepa schools for medical students, the attractiveness of doing a business in France was not attractive due to its intense competition, a concentrated number of sellers and the high bargaining power of suppliers.

## **CHAPTER V**

### **CONCLUSION, RECOMMENDATION AND LIMITATIONS**

This chapter presents the conclusion, recommendations and limitations of the study and suggestions for further studies.

#### **5.1 Conclusion**

The objective of this project was to find an opportunity to for HealthMinds to open medical online education in France. However, it was their first time to operate a business in a European country. Entering France was not easy as thought because there were a lot of barriers for the company to enter the market and the major barrier here was the French government.

Government was a major problem for entering the country because it has a full authority on its education system as discussed in the finding part. It was the one who sets the direction of the system such as quota imposed on medical student graduate in each year. Financial support from government was another factor that increased the bargaining power of buyers. Students can choose to study at universities instead of online because the government supports for both tuition fees and accommodation, which results in a lower price of tuition fees compared with online courses that were expensive and not subsidized by the government. Apart from the government's restriction, the company had to fight against the medical association in France. This association would not let foreign company operate a medical course without their consensus.

There were also numerous competitors in France and the company also needed to differentiate itself from another. The company could lower down the price of service to attract customers because French customers were price sensitive. As the researcher could not find the market price of the services from competitors, it was impossible for the researcher to identify the average market price. Therefore, the company could not set the price of the service.

Since medical e-learning was quite new to the system, there were many sources that students could learn from such as Youtube, medical books and traditional classroom. Moreover, the expense of hiring professors might be expensive due to the scarcity of resources. The company may need to pay high amount of salary. An e-learning business was not easy to do because it required high investment in resources such as programmers, professors, or legal fees for content permission.

## **5.2 Recommendations**

As discussed in the finding part, the ministry of education played an important role to make a decision and organize the curriculum for all schools. The support of domestic SMEs from French government created difficulties for HealthMinds to enter the market. Therefore, the company could join the program called French Tech Ticket. The program is supported by French government. The aim of the program is to bring more innovative international start-ups to France. The program selects potential start-ups who are young and in the growth stage from over the world. The chosen team will receive financial support of 45,000 euro per team and a resident permit from the government. Furthermore, there will be a coaching session with one of 41 French incubators for one year.

A cultural difference between two countries is another problem that might lead to a misunderstanding in context such as language and business etiquette. Therefore, the researcher decided to provide a cultural report. The objective of the report was pointing out cultural differences between India and France. It was made to help understand the origin of those differences and there were few guidelines on overcoming them to develop strong business relationships by looking at the similarities between the two cultures since this is the first time for HealthMinds to do a business in the European market.

The company might not have sufficient understanding about the business environment. Connection is important for businesses in France, the stronger the better. Therefore, the company may need to find a French partner company and promote itself by joining exhibitions that are related to education and healthcare in France such as JIB - JOURNEES INTERNATIONALES DE BIOLOGIE 2017 in Bordeaux. The exhibition gathers medical professionals from European countries. The event is designed for private

and hospital biologists, interns, students, researchers, technicians and secretaries of laboratories. This can be a great opportunity for the company to meet with potential customers and become recognized in French market.

To summarize, the project could not be initiated in France due to many restrictions of the government unlike in the United States or United Kingdom where online courses for medical students are accepted and well established. The company should focus on expanding the market in Asia and middle east rather than in Europe.

### **5.3 Limitations**

The first limitation found in this research is that the researcher has little information of HealthMinds such as the number of employees. The researcher had to find information of the products via a company's website. Moreover, the company did not provide much information about the industry and the representative provided us just a few screen shots of examples that were published to customers. Therefore, it took much time to understand the structure of the business.

Communication is another problem because of the time differences between India and France. Ambiguous objective wasted time. During the second time the researcher talked to the representative, she had mentioned that the company wanted to open the business in Singapore. Therefore, she wanted a list of companies in Singapore that were operating the same business. After the list was sent, she changed her mind to open a business in France. Therefore, the researcher had to start all over again.

Also, the availability of representatives was another limitation because she was very busy for her business trip, which made it hard to contact her and obtain information. For example, there was one week that she had to open an exhibition in Dubai and we could not contact her. Even we used WhatsApp to discuss about the findings, it took us many hours to reply a message.

Language was another limitation in doing this project. Most information found on the Internet was French and Google translate could not translate it appropriately.

## REFERENCES

- Arkorful, V., & Abaidoo, N. (2014). [Http://www.ijalel.org/pdf/573.pdf](http://www.ijalel.org/pdf/573.pdf). *International Journal of Applied Linguistics & English Literature*, 4(1), 399-400.
- Chevreur , K., Brigham, K. B., Durand-Zaleski, I., & Hernández-Quevedo, C. (2015). Health Systems in Transition. *Health Systems in Transition*, 17, 108-110.
- Coffey , L. (n.d.). Community & Business Groups. Retrieved June 10, 2017, from <https://www.w3.org/community/learnonline/2016/08/04/elearning-trends/>.
- Docebo. (2014, March). *E-Learning Market Trends & Forecast 2014 - 2016 Report* (Rep.). Retrieved from <https://www.docebo.com/landing/contactform/elearning-market-trends-and-forecast-2014-2016-docebo-report.pdf>.
- Fact 10: Digital economy – France invests for the future. (2014). Retrieved August 10, 2017, from <https://uk.ambafrance.org/Fact-10-Digital-economy-France>.
- France Economy - GDP, Inflation, CPI and Interest Rate. (2017). Retrieved July 11, 2017, from <http://www.focus-economics.com/countries/france>.
- France is the 3rd most attractive country for foreign students according to UNESCO. (n.d.). Retrieved June 06, 2017, from <http://www.diplomatie.gouv.fr/en/french-foreign-policy/economic-diplomacy-foreign-trade/facts-about-france/one-figure-one-fact/article/france-is-the-3rd-most-attractive>.
- G. (n.d.). RELATED LINKS. Retrieved June 9, 2017, from <http://www.gc-solutions.net/resources/articles/different-types-of-e-learning-and-what-suits-me-best.html>.
- Gaudiosi, J. (2015). How Western University of Health Sciences is using VR to teach. Retrieved June 15, 2017, from <http://fortune.com/2015/10/16/western-university-is-using-virtual-reality-to-teach/>.
- Gee, O. (2017). Who are all these international students in France and where do they study? Retrieved June 01, 2017, from <https://www.thelocal.fr/20170120/who-are-all-these-international-students-in-france-and-what-do-they-do>.
- Jurevicius, O. (2013, May 27). The 5 Powerful Forces that Impact your Profit. Retrieved May 26, 2017, from <https://www.strategicmanagementinsight.com/tools/porters-five-forces.html>.

- KARIM. (2014). [Http://journal.ru/wp-content/uploads/2017/03/a-2017-023.pdf](http://journal.ru/wp-content/uploads/2017/03/a-2017-023.pdf). *ICT; Wearable Technology – KARIM Foresight Report*, 3. doi:10.18411/a-2017-023.
- Lenotti, P. (2014). *The History of E-Learning*. Retrieved June 5, 2017, from <http://www.trainingzone.co.uk/community/blogs/filtered/the-history-of-e-learning>.
- Lichfield, J. (2015). *French universities crisis: Low fees and selection lotteries create headaches in higher education*. Retrieved July 20, 2017, from <http://www.independent.co.uk/news/world/europe/french-universities-crisis-low-fees-and-selection-lotteries-create-headaches-in-higher-education-10517241.html>.
- Lundberg, C. (2014). *France's Higher-Ed System Is More Egalitarian and More Elitist Than Ours*. Retrieved July 06, 2017, from [http://www.slate.com/articles/business/dispatches\\_from\\_the\\_welfare\\_state/2014/02/higher\\_education\\_in\\_france\\_lots\\_of\\_testing\\_lots\\_of\\_planning\\_not\\_lots\\_of.html](http://www.slate.com/articles/business/dispatches_from_the_welfare_state/2014/02/higher_education_in_france_lots_of_testing_lots_of_planning_not_lots_of.html).
- Malini Reddy, Shankha Sengupta. (2012). Online medical education: determinants and development prospects with reference to Indian institutions. *On the Horizon*, 20(2), 117-125, <https://doi.org/10.1108/10748121211235778>.
- O. (2011). OECD. *Medical graduates*". [http://dx.doi.org/10.1787/health\\_glance-2011-22-en](http://dx.doi.org/10.1787/health_glance-2011-22-en).
- Sener, J. (2015). *E-Learning Definitions*. Retrieved July 06, 2017, from <https://onlinelearningconsortium.org/updated-e-learning-definitions-2/>.
- The history of e-learning. (n.d.). Retrieved June 6, 2017, from <https://www.talentlms.com/elearning/history-of-elearning>.
- The Industry of the Future. (2016). Retrieved July 10, 2017, from <https://uk.ambafrance.org/The-Industry-of-the-Future>.
- Vioreanu, D. (2016). *Tuition Fees and Living Costs in France*. Retrieved June 5, 2017, from <http://www.mastersportal.eu/articles/355/tuition-fees-and-living-costs-in-france.html>.
- What is eLearning? (n.d.). Retrieved June 06, 2017, from [http://www.elearningnc.gov/about\\_elearning/what\\_is\\_elearning](http://www.elearningnc.gov/about_elearning/what_is_elearning).
- Yu, J., & Hu, Z. (2016). *Is online learning the future of education?* Retrieved July 05, 2017, from <https://www.weforum.org/agenda/2016/09/is-online-learning-the-future-of-education/>.