

Dan Tran

MARKET STUDY FOR FUNCTIONAL FOOD AND OAT
PRODUCTS IN VIETNAM

Degree Programme in International Business
2020



MARKET STUDY FOR FUNCTIONAL FOOD AND OAT PRODUCTS IN VIETNAM

Tran Ngoc Minh Dan

Satakunnan ammattikorkeakoulu, Satakunta University of Applied Sciences

Degree Programme in International Business

June 2020

Number of pages: 51

Appendices: 1

Keywords: functional food, oat products, cholesterol level heart diseases, Vietnam market, PESTEL analysis, foreign investment.

An ample market research for Vietnam market in terms of functional food with the main approach to oat products was conducted to cover the objective of this thesis. Throughout the research, the author aims to provide a brief and concise perspectives on how beneficial the oat products are to human's health.

Following the research, the information is gathered and synthesized from reliable sources to develop an in-depth market study in Vietnam for functional food and oat products. In coordination with the market research, the PESTEL analysis is applied to analyze the country background in terms of political, economic, social-culture, technology, environment and legal factors. The industry analysis will be then used to analyze oat products market under the views of market size and consumer trends, public, customer as well as distribution channels.

In the empirical part, the author enables to provide a meticulous analysis of growing concern of consuming functional food among Vietnamese customers based on the results from the questionnaire survey. The survey chronicles all the data and information mainly related to the current consuming trends of the Vietnamese end-users toward functional food and oat-based products. Through the analysis of given valid data, some of the research findings were uncovered, such as Vietnam market of healthy and functional food was promising, however, oat-based product category was still quite limited due to the small number of available products. Based on the research results, the author was able to point out the opportunities as well as the challenges which may be an open door for attracting investment in Vietnam functional food market.

CONTENTS

1	INTRODUCTION.....	5
2	PROBLEM SETTING AND CONCEPTUAL FRAME OF REFERENCE.....	6
2.1	Research problem and research objectives	6
2.1.1	Purpose of the thesis.....	6
2.1.2	Research problem and research objectives.....	6
2.2	Conceptual frame of reference.....	7
2.3	Boundaries of the thesis	8
3	FUNCTIONAL FOOD AND CHOLESTEROL LOWERING ISSUES.....	8
3.1	Functional food and its definition.....	8
3.2	Types of functional food.....	9
3.3	Cholesterol and heart disease.....	10
3.3.1	Definition	10
3.3.2	Key facts	11
4	VIETNAM’S FUNCTIONAL FOOD MARKET.....	12
4.1	Macro environment analysis – Country analysis.....	12
4.1.1	Political factors.....	14
4.1.2	Economic factors.....	15
4.1.3	Social-Cultural factors.....	19
4.1.4	Technology factors.....	23
4.1.5	Environmental factors.....	24
4.1.6	Legal factors	25
4.2	Micro environment analysis – market analysis.....	27
4.2.1	Functional food market in Vietnam.....	27
4.2.2	Oat products market in Vietnam.....	28
4.2.3	Market size and consumption trend of oat products in Vietnam.....	29
4.2.4	Distribution channels.....	30
5	METHODOLOGY.....	32
5.1	Research method.....	32
5.2	Research approach	32
5.3	Data collection method	33
5.4	Population and sample	34
5.5	Designing the questionnaire.....	35
5.6	Data analysis	36
5.7	Validity and reliability	36
6	RESEARCH FINDINGS AND ANALYSIS	37

6.1	Background information of the respondents.....	37
6.2	General knowledge and consumption of functional food.....	39
6.2.1	Consumption of functional food.....	39
6.2.2	General knowledge about functional food.....	41
6.3	Criteria affecting the choice of functional food.....	43
6.4	General knowledge and consumption of oat products.....	45
6.4.1	General knowledge and consumption of oat products.....	45
6.4.2	Intention for using oat products.....	47
7	SUMMARY AND CONCLUSIONS.....	48
7.1	Summary.....	48
7.2	Conclusions.....	49
7.3	Suggestion for further research.....	52
8	FINAL WORDS.....	52
	REFERENCES.....	54
	APPENDICES	

1 INTRODUCTION

This chapter introduces the formation of the research in general, specifying the motives for choosing Vietnam as the country background for implementing this thesis. With the combination of other factors, there will be a short description of theoretical framework and research approaches are also given out.

Thesis background

Due to its growing population and developing economy, Vietnam has become a rising market for functional food. Therefore, this research is to provide a picture of functional food market in Vietnam, in which, one of the most promising functional products that would gain attention in the near future is oat-based products. In addition, healthy oat products directly relate to cholesterol issues that triggered the increasing level of heart diseases in Vietnam.

Thesis structure

This thesis contains 8 chapters and is divided into two main parts which are theory and empirical part. In each chapter, the theoretical part will be presented first, coming up later is the empirical section that synthesized all the data from academic sources and from the survey question's results. The arrangement of this thesis is showed in figure 1:

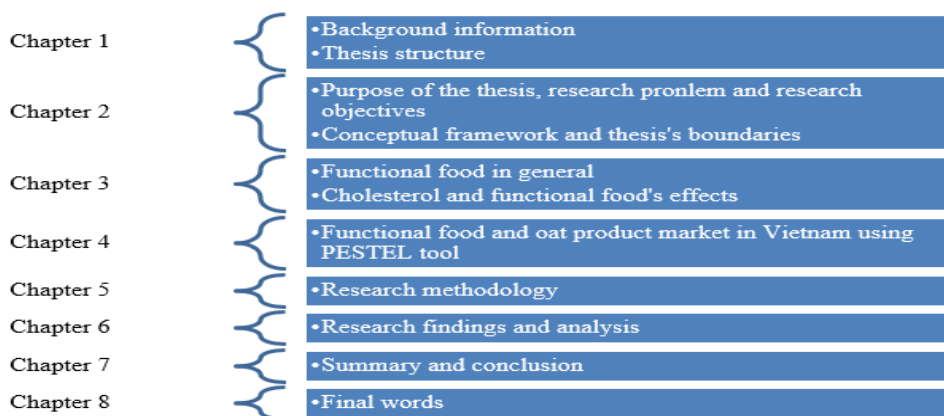


Figure 1. Thesis structure (Thesis author 2018)

2 PROBLEM SETTING AND CONCEPTUAL FRAME OF REFERENCE

This chapter contains purpose of the research, the research problem and research objectives, the conceptual framework, and the boundaries of the thesis

2.1 Research problem and research objectives

2.1.1 Purpose of the thesis

The research is conducted to provide people a broad understanding of functional food and its assorted market in Vietnam. Parallely, a general research of oat products market in Vietnam would be introduced in the purpose of giving out a glance of what are its good impacts. Besides, this market study is perhaps a side research that propose an opportunity for more investment in the race of making competitive yet sustainable development of healthy functional food in Vietnam.

2.1.2 Research problem and research objectives

The main focus of this thesis is on the evaluation of Vietnam's functional food market and oat products consumption to perhaps propose new perspective for foreign investment in this market in Vietnam.

To facilitate the market study and better achieve the goal of thesis, the research problem is broken down into research objectives below:

- What are the typical features of Vietnam's functional food market?
- What is the prospective development for Vietnam's functional market?
- How is the consumption level of oat products in Vietnam?
- What are the internal and external factors/challenges which may affect foreign investment in functional food market?

2.2 Conceptual frame of reference

In accordance with the research problem, this thesis concentrates only on analyzing Vietnam's functional food and oat products market, and also the elements that may expose some valuable insights for foreign investment within this market. In figure 2 below, the author created the conceptual framework to illustrate how all the concepts are organized and related in the thesis.

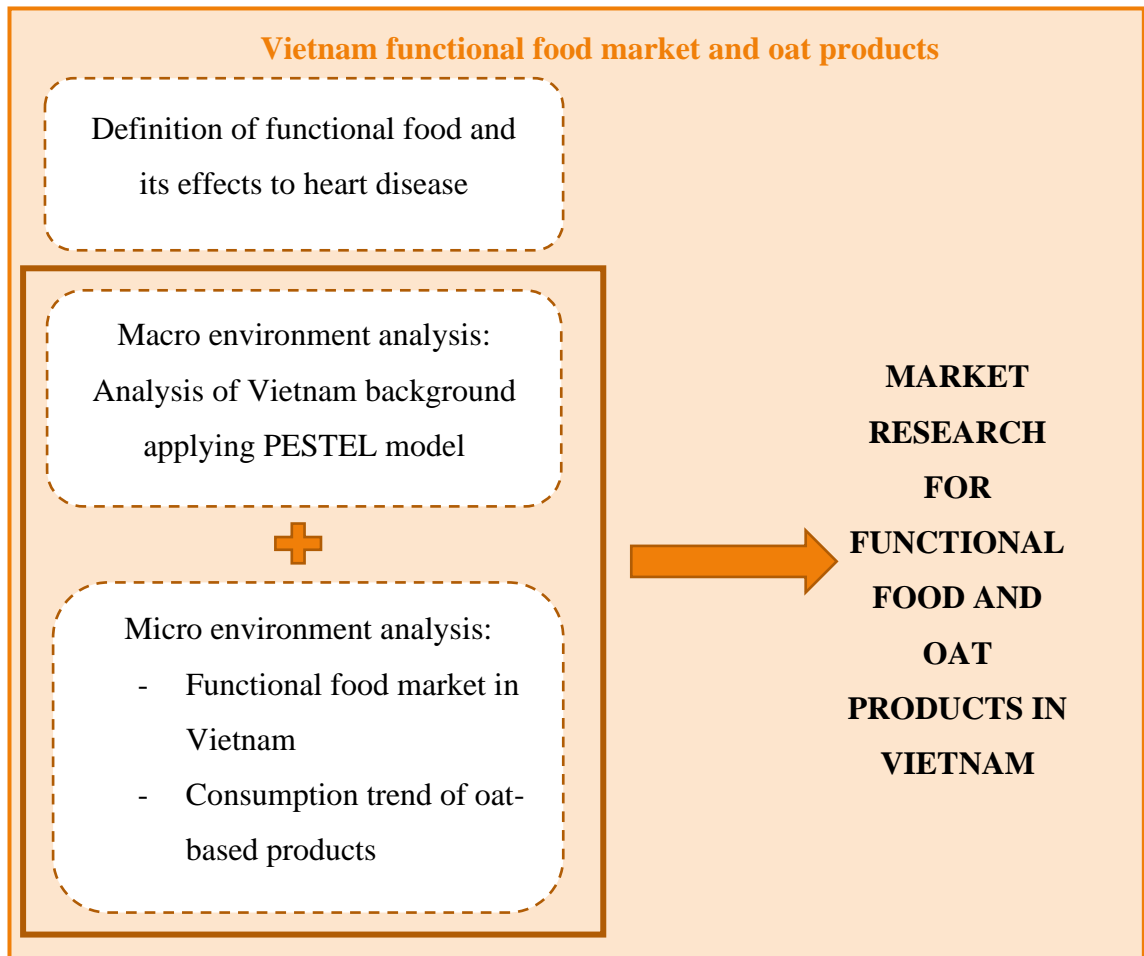


Figure 2. Conceptual framework of the market study for functional food and oat products in Vietnam (Thesis author 2020)

The whole notion of this market research is shown in the figure 2 which consists of two major sections. The first one is to provide the definitions of the so-called functional food since it had been invented and its good effects for human health in lowering cholesterol level. After the theory of functional food, the thesis is broken down into two key parts of analysis. The country analysis gives out a picture of Vietnam back-

ground applying PESTEL model. From PESTEL analysis tool, six factors will be covered one after another including politics, economy, social-culture, technology, environment and legal acts. The next analysis is conducted in this research which is market analysis. The author combined some general aspect in Vietnam's functional food market and oats products consumption trend as distribution channels, market size and types of oat-based products to analyze the insights of this market.

2.3 Boundaries of the thesis

The first boundary would be that the thesis will concentrate solely on the evaluation of Vietnam's functional food and oat products consumption in general based on the understanding and market research of the author. No further suggestions for marketing plans towards any specific company to scope with. Lastly, the author is not responsible for the prescription of heart diseases syndromes or cholesterol cutdown because this thesis only mentions briefly the beneficial side of oat-based products to human health. Neither treatment nor cure is provided scientifically.

3 FUNCTIONAL FOOD AND CHOLESTEROL LOWERING ISSUES

3.1 Functional food and its definition

Back to the 1980s in Japan when most Japanese people were interested in food products with special constituents that provide beneficial physiological effects which may improve the conditions of the human body. It was when the concept of functional food was first promoted. According to Japanese scientists, functional food performed well because of the relationships between nutrition, sensory satisfaction, fortification and modulation of physiological systems. In 1991, with the permission and authorized approval of the Japanese Ministry of Health, a specific term of this special food group was established as FOSHU (Food for Specified Health Uses) (Siro, Kapolna, Kapolna, ,Lugasi 2008, 457).

However, there has not been an officially unitary accepted definition of functional food until now. Based on the fact that most of the functional food is worth consideration because of its changing key nutrition, there will be some popular definitions about functional food among the wide assortment:

According to the U.S Institute of Food Technologists (IFT), they claim that functional foods are substances that go over the expected necessary quantities with exclusively vital nutrition in order to support, grow and strengthen health conditions and/or with other biologically active components which are good for desired physiological effects (Martirosyan & Singh 2015, 210-213).

On a different note, the European Commission’s Concerted Action on Functional Food Science in Europe (FuFoSE) defined functional food as “a food product can only be considered functional if together with the basic nutritional impact, it has beneficial effects on one or more functions of the human organism thus either improving the general and physical conditions or/and decreasing the risk of the evolution of diseases. The amount of intake and form of the functional food should be as it is normally expected for dietary purposes. Therefore, it could not be in the form of pill or capsule just as normal food form” (Siro, Kapolna, Kapolna, Lugasi 2008, 458)

3.2 Types of functional food

Functional food originally had been developed in many different food categories and can be included in numerous distinctive methods. According to Kotilainen et al., 2006 and Space et al., 2006, the prominent categories of functional food are described below:

Table 1. Prominent types of functional food (Siro, Kapolna, Kapolna, Lugasi 2008, 459)

Types of functional food	Definition	Example
Altered products	The harmful component has been destroyed, reduced or replaced by a	Fibres as fat releasers in meat products or in ice-cream

	substance that is good for health	
Enhanced products	One of the components is enhanced through a special growing environment, new feed blend or via genetic manipulation.	Eggs with increased omega-3 achieved by altered chicken feed
Enriched products	One or a composition of new nutrition and components have been added without normally found in certain type of food	Margarine with plant sterol ester, probiotic and prebiotics
Fortified products	A kind of food fortified with some additional nutrients	Fruit juice fortified with vitamin C

3.3 Cholesterol and heart disease

3.3.1 Definition

Heart disease or cardiovascular diseases (CVDs) took more than 30% of the human lives of all global deaths in 2016. Heart disease became one of the threaten disease than any other dangerous illness which includes different symptoms. Among them, heart attack and stroke are commonly acute incidents caused by a blockage that restrains blood from flowing to the heart or brain. One of the highest risks that has been known as the most universal reason for those events is a build-up of fatty grounds up the inner walls of blood vessels that serve the heart and brain (Website of the World Health Organization 2017). The fatty sediments are usually those harmful lipids under a well-known name as cholesterol.

According to World Health Organization (WHO), a short yet plain definition described cholesterol is “a fat-like substance, found in the bloodstream and bodily organs and nerve fibres”.

Based on some academic definitions, cholesterol is a lipid or fat, also a sterol that exists in a waxy substance which resembles whitish-yellowish candle texture. Because lipids are oil-based but blood is water-based, the process that cholesterol build up around your blood vessels is not simple as many people have been thinking. By cause of a third material and triglycerides, which is a typical component in the lipids, attached to the barrier of blood vessels in order to provide energy for the body. However, the overuse of food that exists a lot of triglycerides is dangerous for the heart and arteries (Freeman & Junge 2005, 2).

3.3.2 Key facts

There have been many studies discovered a connection between high levels of cholesterol and a higher risk of developing and dying from heart disease. In this research, the author only adopted two related and also credited graphs to bring up the whole picture of how much cholesterol is dangerous for human health.

Table 2. Classification of desirable of LDL, HDL, Total Cholesterol and Triglycerides (md/dL) (Website of the Centers for Disease Control and Prevention 2015)

Desirable Cholesterol Levels ²	
Total cholesterol	Less than 200 mg/dL
LDL ("bad" cholesterol)	Less than 100 mg/dL
HDL ("good" cholesterol)	60 mg/dL or higher
Triglycerides	Less than 150 mg/dL

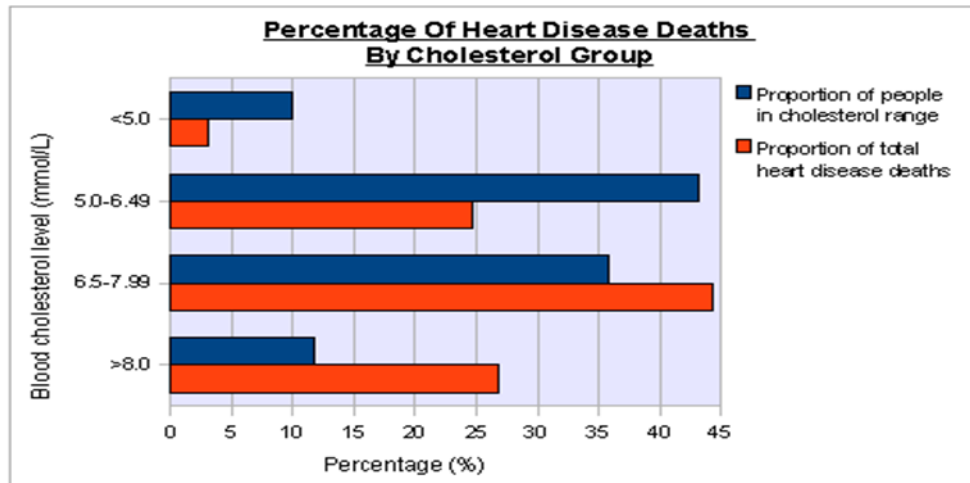


Figure 3. The risk of developing heart disease (%) across various cholesterol levels (Wilson 2008)

LDL cholesterol level also known for its bad impacts on health as shown in table 2. Nevertheless, it can be lowered by consumption of healthy products and some types of functional food, especially in oat products which will be discussed in further details in chapter 4 of this research.

4 VIETNAM'S FUNCTIONAL FOOD MARKET

This chapter provides the approaches of macro-environment analysis also in micro-environment level that comprise major forces that have influenced the market. Particularly, the whole part focuses on bringing out the insights of Vietnamese functional food industry. As a result, a more close-up inspection will be conducted in order to find out which forces have shaped the functional food market in Vietnam since its beginning.

4.1 Macro environment analysis – Country analysis

A remarkable transformation of Vietnam has emerged over the past thirty years thanks to the political reform and the open-trading policies. Regardless of the economy, GDP

is estimated to grow by 6.6 percent in 2019 and 6.5 percent in 2020 due to the anticipated cyclical moderation of global demand. Besides, Vietnam has experienced a rapid demographic and social change, especially in population growth (Website of the World Bank 2018). Despite a series of challenges, such as the remaining inflation rate, low levels of education and lack of skillful personnel, poor infrastructure, complex administration yet lack of transparency, Vietnam is still on the track to appeal to foreign investment. Thanks to the nation's steady economic development, fast demographic change which mostly accounted for 70% of young citizens, low-cost labor source, a gradually opening and transparent market with well-provided natural resources and also an ideal geographic position in Asia region. All in all, these aspects were comprised to captivate potential investment from overseas.

The brief country analysis above will be explained in all sorts of examinations by utilizing PESTLE analysis tool which concentrates on six key factors and will be mentioned clearly below

PESTEL analysis tool

The PESTLE Analysis is used as a situational yet effective tool for businesses to determine the key aspects in the macroeconomic environment in terms of the industry attractiveness, market potential and/or industry as well as current market performance. By adopting the model of PESTLE Analysis, the business enables to understand its market position at that time and through such comprehension can upgrade its business strategies, targets and performance or even examine the process of the competitors (Perera 2017, 2-6).

PESTLE is an acronym for six extensions which represent Political-Economic-Social&Cultural-Technology-Environment-Legal. Not only the PESTLE Analysis model exists under its so-called name but there are variations of it. They are PEST (excluded legal and environment factors) and STEEPLED which has added the extra analysis of Demographic and Ethical factors (that can also be included in the Social-Culture component) (Cooper 2014). There are still several different variations of PESTLE model, however, in this research paper the author only introduces the two most popular alternations.

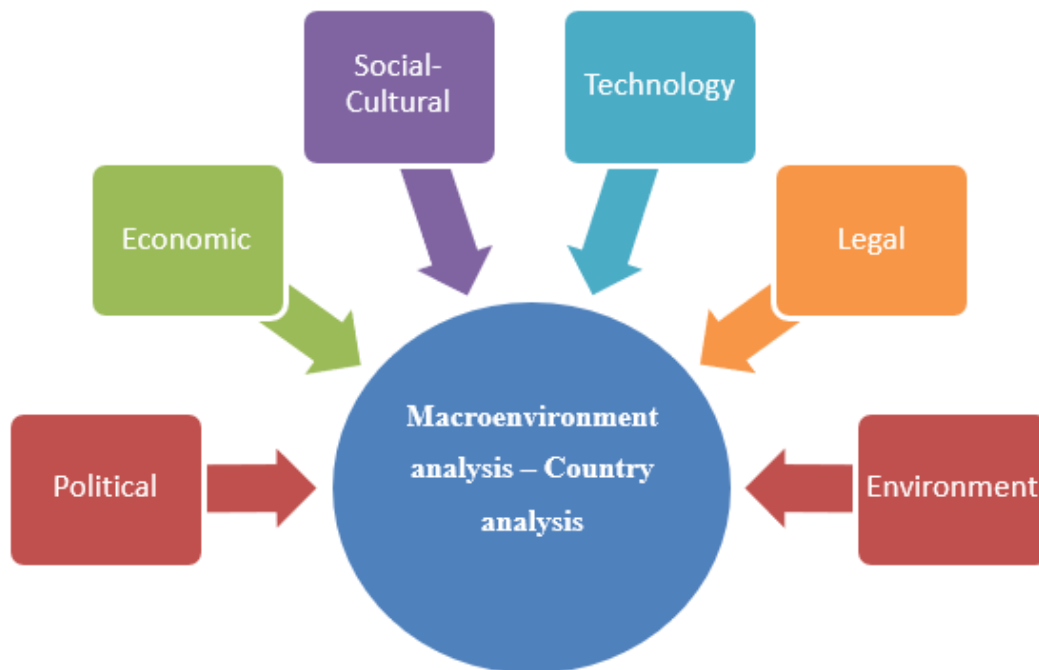


Figure 4. PESTEL analysis model (Thesis author 2019)

4.1.1 Political factors

Political feature is a highly considered cause for business activities because of its changing policies or stability that puts a great impact on trading and investment from overseas (Perera 2017, 8-9)

After the reunification in 1975, The Communist Congress is the single-party which played the central role of Vietnam until now under the officially authorized name of “The Socialist Republic of Vietnam”. The whole nation is shaped by an excessive intervention by the government which controls major policy issues, strategic direction, social system and legal organization. Since “Doi Moi” policy in December 1986, the government domination was considered more internationally open to make a national breakthrough improvement. Vietnam is gradually becoming an open space for civil participation that contributed to the country’s long-term vision of developing into a modernized and industrialized nation. Vietnam is recognized to be one of the politically stable countries in South East Asia due to its rare threat of terrorism and internal conflict is unlikely to occur. However, recently, social unrest becomes upbeat and often does increase a small number of protests. The tight restriction of freedom of speech

on social media or land authorization are the main causes of the riot (Website of the Government of the United Kingdom 2018).

In recent years, Vietnam has been one of the typical examples of the emerging market globally. The country had been authorized and accepted as an official member of ASEAN free trade area – AFTA (1996), Asia Pacific Economic Cooperation – APEC (1998), World Trade Organization – WTO (2007) (Website of the Inside Vietnam Travel). More importantly, Vietnam has signed the important agreements to enhance the relationship between Vietnam and the European Union by Free Trade Agreement and Investment Protection Agreement on June 2019 (Website of the European Commission 2019).

4.1.2 Economic factors

It is clear that economic factors are critical in the country analysis because it somehow reflects the current situation as well as the development status of a nation (Perera 2017, 10-11). Generally, there are many aspects when making research on economic factors. However, the author only chose the key ones that are significantly related to the Vietnamese economy recently.

GDP Rate and Income Level

Looking back to the 20th century, Vietnam was one of the poorest countries in the world with income per capita below 100USD. (Website of the World Bank 2019). Over the past 30 years since Doi Moi revolution, Vietnam has made a robust development to transform from an impoverished nation to a lower middle-income country. Nearly two decades, Vietnam's GDP growth rate was recorded through thick and thin and was also released as seen below via this latest updated table:

Table 3. Vietnam GDP growth rate (Website of the Trading Economics 2018)

Actual	Previous	Highest	Lowest	Dates	Unit	Frequency
6.88	6.73	8.46	3.14	2000-2018	percentage	quarterly

Like other economies globally, the salary level in Vietnam depends on many factors including location, occupation, business sector and the career. Among 64 provinces/cities throughout Vietnam, Ho Chi Minh City leads the average salary level at US\$ 456 (VND 10.37 million) which means this city covers up 38% higher than the national average. According to a report from Vietnamworks, the largest online recruitment platform in Vietnam, more than a half of employees earn monthly average income from US\$ 251 (VND 5.7 million) to US\$ 500 (VND 11.37 million) (VNA 2018).

Growth in Foreign Direct Investment (FDA)

Since Vietnam was going global and was accredited to some international organizations and agreements, it was a huge bloom for the nation to tackle down the tariffs as well as trading costs in order to attract FDI from developed countries (Website of the Oxford Business Group 2017). FDI into Vietnam increased by 7.5% in five straight consecutive years and continuously climbed to US\$ 5.7 billion in the first four months of 2019. The United States was the biggest source of FDI pledges back in 2016, in 2018 it was Japan but at the moment, Hong Kong is the main FDI source to Vietnam, followed by South Korea and Singapore (Website of the Trading Economics 2018).

Employment and Unemployment Rate

As the 2008 Global Financial Crisis hit the world economy, young employees suffered the most therefore, the unemployment rate in Vietnam got worse than ever before. It is calculated that more than 80.000 people lost their job across nationwide which increased by 4.65% in 2008. Compared to other countries in the Asia Pacific region, Vietnam was not on the top of the jobless situation. However, the country was struggling with youth unemployment because this young generation accounts for about two-thirds of the national population. (Website of the Asia Society 2017). The key issue of

Vietnam's labour market is that 39% of unemployed citizens are well-educated or professional, half of them own degrees or higher education diplomas. The reason is that most of the jobs on the current labour market are low-paid and labour-intensive but jobless people mostly seek for a high salary and high-skilled positions. Besides, according to the World Bank official data, Vietnam's labour quality was rated at a poor rate of 3.39 points out of 10, which ranked 11th among 12 Asian countries. Lack of productivity and poor training have been the primary causes of weak labour quality in Vietnam in the eyes of foreign investment (Vietnam's unemployment rate ... 2016). Nevertheless, the government was continuing to reform the labour market across the main business sectors of the economy in order to strengthen employer's skills and quality so that they can remain competitive in a globally 4.0 evolution industry (Das 2018).

Inflation and Interest Rate

Inflation and interbank interest rate have been under pressure in the upcoming time as expected by experts. According to State Bank of Vietnam (SBV), the foreign capital flow is getting weaker due to some reasons from the inside and outside market. First of all, it is because of the moving out of the international investors from the Vietnamese market. Besides, the US-China trade war is protracted to turn into a currency war. Therefore, to keep the national Vietnam Dong (VND) and/or the official exchange rate (US dollar) maintained, the government should pay more attention to foreign portfolio investment and carry out the adjustable policies to attract more international investors (Truong 2018).

In terms of interest rate in Vietnam, due to the stiffening policies of monetary and trading tension worldwide and the high level of inflation of the local economy, it is forecasted that the interest rate will increase in 2019. Furthermore, not only higher inflation is believed to cause upward pressure on interest rate but also the overprice of oil and food as well as the trade tariff. In order to have a close-up view of the interest rate and inflation in Vietnam, the picture below is presented in figure 5:

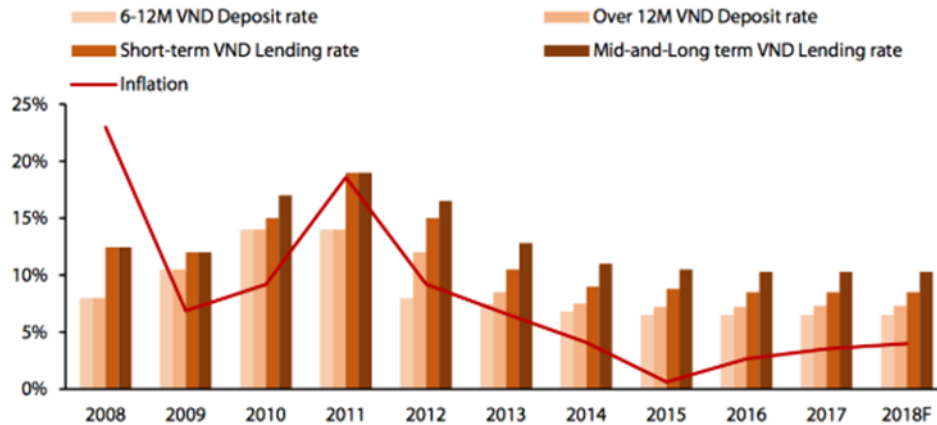


Figure 5. Interest rate vs inflation in Vietnam (Mai 2018)

Export and Import

Vietnam is blessed by its strategic location among the countries in Southeast Asia, so this nation has been gradually becoming an ideal hub for export and import industry. Additionally, Vietnam has ratified the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) recently alongside many countries in the world which means Vietnam is going internationally in the trading market (Mah 2018).

In international ranking, Vietnam placed the 21st biggest economy in the world. In 2017, Vietnam exported US\$220 billion and imported US\$204 billion which gained a positive result of the trading balance of US\$15.7 billion. Top export merchandises of Vietnam are broadcasting equipment, telephones, integrated circuits and footwear. Meanwhile, the principal imported foreign goods are telephones, refined petroleum, electrical parts and light rubberized knitted fabric. Besides, the destinations have highest rate of imported commodities from Vietnam are the United States, China, Japan, South Korea and Germany, whereas, the top importing countries to Vietnam are China, South Korea, Japan, Singapore and Hongkong (Website of The Observatory of Economic Complexity 2018).

Consumer Spending

According to the General Statistics Office (GSO), Vietnam’s consumer spending increased totally 11.5% last year including the price factor. However, excluding the price

factor, the growth rate was 9.34% during 2018 which was a little higher than 9.25% showed in 2017. Generally, retail consumer goods are accounted to more than 70% of the total consumer expenditure which was approximately US\$ 129.30 billion (VND 3,007.2 trillion) (Mai 2018).

On the other hand, Vietnam is recorded as the second-largest consumer goods market in Southeast Asia only after the Philippines due to the surging population and the up-swung income of the middle-class group. Among the household consumer spending in Vietnam, food and beverage are the largest sections, especially the healthy food and non-alcoholic drinks. Ranked after that are household utilities and transport expenditure. In addition, premium products including health merchandise have become a consideration in recent years. Vietnamese consumers are more willing to spend on products and services that improve their quality of life such as, notably healthcare goods and organic products. The substantial increment of consumer expenditure and value of food products spending can be observed at the following figure:



Figure 6. Spending on consumer goods – the fastest growing items (US\$ billion) (The Future of ASEAN... 2018, 39-40)

4.1.3 Social-Cultural factors

The growth of a business is connected with the social norms and traditional values of a country and thus making an adjustable environment for an enterprise to fit with the trading destination is essential (Perera 2017, 12)

Civil Social Organization

According to the Asia Foundation, civil society is described as “an integral part of societies everywhere, the arena where citizens come together to engage in issues affecting their lives and the development of their communities”. Accordingly, there are four general types of civil society organizations (CSOs) in Vietnam as community-based organizations, mass organizations, professional organizations and the last one is Vietnamese NGOs (Taylor, Nguyen, Pham, Huynh 2012). In order to map out the system of Vietnam CSOs, a study was conducted to provide identified categories of CSOs as shown in table 4:

Table 4. The systematic summary of civil society organizations (Taylor, Nguyen, Pham, Huynh 2012, 8)

Category	Types of organizations	Connection to the nation	Vietnamese types
Community-based Organizations	<ul style="list-style-type: none"> - Service and development related to livelihood orientation - Faith-based organizations - Neighbourhood groups - Family clan - Recreative clique 	<p>Indirect affiliation to other organizations or Civil Code.</p> <p>Many of them are not registered yet.</p>	<p>Rural collaborative groups</p> <p>Faith-based organizations</p> <p>Neighbourhood groups</p> <p>Family clans</p>
Mass Organizations	<ol style="list-style-type: none"> 1. Women’s Union 2. Farmer’s Association 3. Youth Organization 4. War Veterans Association 	Fatherland Front	Social-Political Organizations

	5. Employee's Organization or VGCL		
Professional Organizations	<ol style="list-style-type: none"> 1. Umbrella organizations as Red Cross, Cooperative Alliance, VUSTA, VUAL, etc. 2. Professional Organizations 	<ol style="list-style-type: none"> 1. Fatherland Front 2. Obtained by an umbrella organization, centre or a provincial organization 	<ol style="list-style-type: none"> 1. Social-Professional Organization 2. Some belongs to NGOs
Vietnamese NGOs	<ul style="list-style-type: none"> Charity NGOs Research NGOS Consultancy NGOs Educational NGOs Healthcare NGOs 	VUSTA, Line Ministries, Provincial or District People's Committees	Social Organizations or NGOs

The role of civil society towards the private sector is important and vice versa. An ongoing collaboration between these two has become more prominent than ever since CSOs play the role of partners/clients in delivering the social services while a greater source of funding is from the businesses.

Middle-class Growth

Generally, the rising middle-class in developing countries is one of the key drivers that would sharply transform the global economy, especially in Asia (India, ASEAN and China).

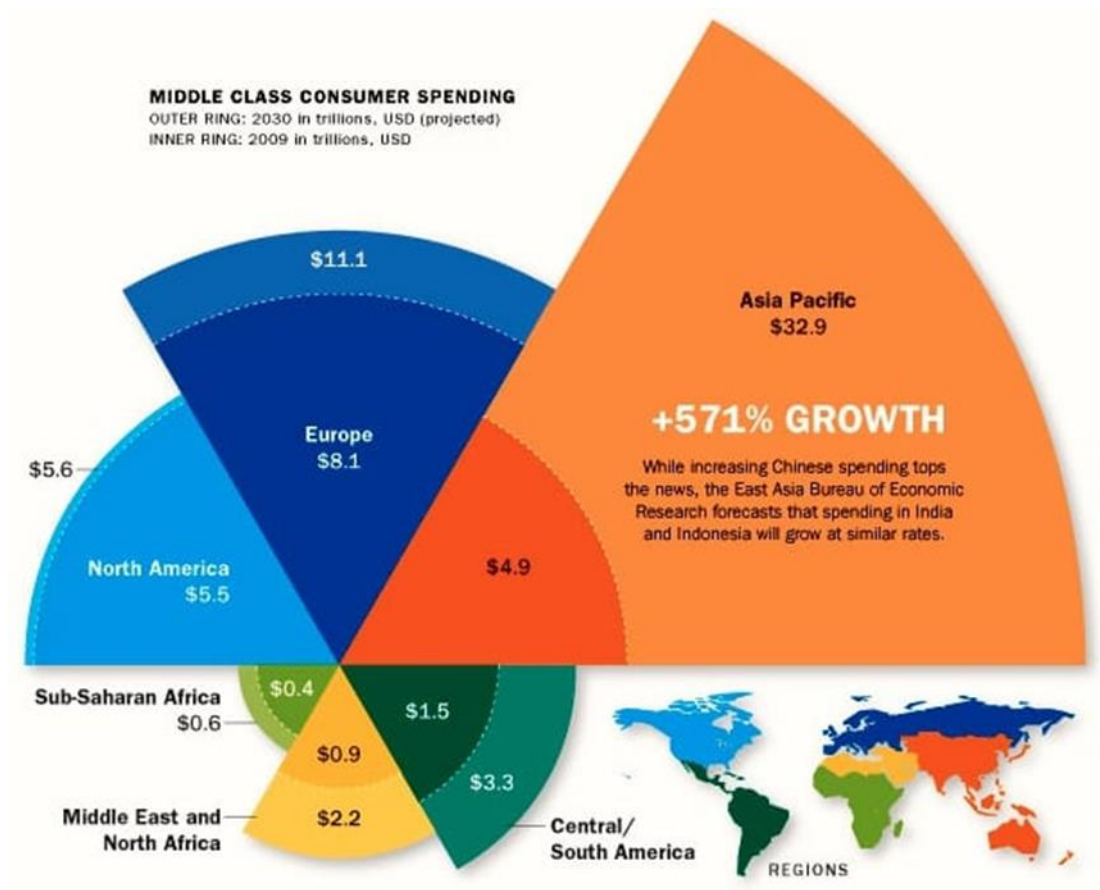


Figure 7. The global overview of middle-class consumer spending (Website of the American Chamber of Commerce in Vietnam 2014)

According to a World Bank’s report posted on Vietnamnet online newspaper in 2018, Vietnam’s poverty rate marked down more than 70%. A part of this serious decline was due to the embryonic development of the middle-class. Between 2014 and 2016, at least 3 million Vietnamese people joined the global middle class. Also, in 2018, this number increased to 14 million citizens that helped the country to boost its economy up on the scale and make a life-changing era for consumer retail market as people tend to move forward to higher living standards (Vietnam middle class booms 2018). An upbeat escalation of middle-class was ongoing when it currently makes up 13% of the population and was estimated to continuously go up to 26% by 2026 (Website of the World Bank 2018). For those who are listed as middle-class in Vietnam, a monthly income is \$USD 714 or a bit more. It is called a middle-class boom because approximately 50% of them were the regular consumers in purchasing retail household, high-quality products and using superior healthcare, and education services (Ball 2016).

Health Lifestyle

Together with the rapid development of economic factors, the health status of the Vietnamese residents has significantly improved over time. The data shows that during the period of 1990-2015, Vietnam accomplished many health-related Millennium Development Goals. Life expectancy of Vietnamese people increased from 70,5 years to 75,8 years and the maternal mortality ratio had reduced from 233 to 54 per 100 000 live births. Based on the fact that the improvement of health lifestyle in Vietnam is greatly affected by the speedy invention and import of medical equipment available in public or private health facilities (Website of The World Health Organization 2017).

Considering of health lifestyle in Vietnam, an unreasonable diet on a daily basis is becoming a trend that people consume just half of the recommended amount of food per day as well as the lack of supply of whole grain cereals and unsaturated fat. It leads to an increment of metabolic and endocrine disorders. On the other hand, the consumption of tobacco and alcohol drinks in this country was ranked higher than its neighbours in the region. According to Ms. Nguyen Thi Lam, deputy head of National Institute of Nutrition, Vietnamese young generation and children tend to consume fast food and fizzy beverages more than before due to the hustling modern life while they don't exercise enough to reduce the saturated fat and cholesterol. All of them are the causes of high blood pressure, obesity, cardiovascular problems and diabetes which have been intensively rising in recent years (Poor diet, lifestyle... 2016).

4.1.4 Technology factors

Vietnam has been undergoing a breakthrough development of technology information communication. Its market is expected to grow constantly between 2018-2020 to meet the objectives of sustainable economic development and strong international integration. (Website of the International Trade Administration 2018). By 2020, the government sets goals to make Vietnam into a 4.0 industry that modern technology tools and platforms are applicable as much as possible in doing business (How technology is changing... 2018). According to the Ministry of Science and technology, there are more than 300 firms nationwide which have already been certified as a science-and-

technology enterprise and 43 organizations are considered as high-tech businesses among them (National strategy on... 2018).

Over the past few years, the government has realized the importance of science and modern technology. They constantly encourage as well as plan out many projects in order to narrow down the scientific and technological gap with the world in number of key areas by 2020. Particularly, a campaign was launched with the aim of advocating Vietnamese scientists living abroad to return home under the name Fostering Innovation Through Science and Technology (FIRST), which is worth more than 100 million USD fundraising. In addition, a large part of overseas loan or capital fund has been used to invest in science and technology institute to mobilize the research projects (Le 2014)

Despite the prior policy and administrative support, not many science and technology businesses could take advantage of this. On the other hand, the policy and project were not upbeat enough for them to follow due to the complexity of procedures of local authorities. (National Strategy on... 2018). Not to mention the functional food industry while Vietnam is a wealthy source of medical plants, 80% ingredients of functional food in this country are imported. The outgrowth of enterprises in this market was increasing but the current applied technology system still remained outdated which was one of the main reasons that most of domestic manufacturers could not produce high-quality functional food products (Nguyen 2013).

4.1.5 Environmental factors

The impact of natural concerns is critical when it comes along with the increasing pressure of climate change, harmful environmental effects and the lack of stable energy sources. These environmental issues are some of the primary factors that in a way or another affect business activity, including operations, promotions, fine or charges, etc. (Perera 2017, 15-16).

Vietnam is blessed by nature, with a great topographic diversity. The country is made up from high-temperature plateaus to frosty mountains and lined up by an over

1600km long sea coast. Although the country is located in the tropical monsoon climate, the temperature is still diversified due to latitude and height in different areas. When the North of Vietnam suffers from extremely humid and cold season from November to March, the South area is all year-round tropical warmth except for the heavy rain season from August to November in which the coolest temperature hardly goes below 20°C. Commonly, for both of the regions, the hottest temperature may soar up to 40°C in April (Website of the Global Security). Stretching over by a long coastal line, only one-fourth of Vietnam is covered by deltas which also located in two main regions are known as Northern Delta and Mekong River Delta in the Southern area. The rest of Vietnamese territory is replaced by mountain ranges, plateau, hills, seas and islands. Besides, mountainous regions are 2000 meters above the seas which adds up to the diversity of Vietnamese nature (Website of the Embassy of The Socialist Republic of Vietnam in the United States of America).

However, the sustainability of environmental development of Vietnam should be taken into consideration due to the cause of pollution level, longer and heavier floods, depletion of natural resources and top of them is waste treatment. (Website of the Global Security 2016). Rapid growth of industrialization, urbanization as well as the low education of developing natural sources sustainably has been imposing many challenges on the Vietnamese environment. As the country focuses on economic development, the use of forest has been exploited unreasonably, water resources are polluted, and land use has been stretching widely without control. Ongoing climate change problems have obstructed the economic growth when greenhouse gas emission is forecasted to increase non-stop which leads to air pollution in Ha Noi and Ho Chi Minh City at a threatening level (The Document of World Bank 2017).

4.1.6 Legal factors

In terms of legal factors, it generally needs a wide variety of research and analysis because it must include the laws and regulations, authorized rules or policies, guidelines or Acts that have been legalized and administratively approved. These laws, regulations and policies may have a crucial control of business activities from which a strategic system of an organization can derive (Perera 2017, 14-15)

It is likely to be a lengthy report that would be over the accepted limit, so the author decided to opt out many detailed quotes from all of the laws and regulations. According to Asia Pacific Food Industry in Vietnam, the applicable disciplines can be summarized as the following:

- Clinical Trials and Consumer Testing
- Registration with Vietnam Food Administration (VFA) or Drug Administration of Vietnam (DAV)
- Import, Export, and Manufacturing Licenses
- Ministry of Agriculture and Rural Development (MARD) Crop Care Registration
- MARD Animal, Aquatic, and Hazardous Substance Registration
- MARD Import, Export, and Manufacturing Licenses
- Regulatory Compliance and Maintenance
- Labelling and Advertising Clearance
- Intellectual Property

Functional food is listed in the food product category regulation, therefore, all functional or processed food imported from overseas must be registered with the Vietnam Food Administration (VFA), an agency of Ministry of Health, to earn a Certificate of Conformity Declaration before entering to Vietnamese market (Vu 2018). Broadly speaking, the process of registration for food category neither take long time nor quite complicated compared to the registered procedure of medicine or drugs. However, with the consultation of Ms. Think Vu - a prestige associate lawyer from whom the author asked, here are some essential law documents directly apt to enterprises that do functional food merchandise:

- Law on Food safety 2010 No. 55/2010/QH12 of Vietnam
- Decree No. 38/2012/NĐ-CP dated April 25th, 2012En detailing a number of articles of the Law of Food safety (decree 38)
- Circular No 16/2012/TT-BYT Circular No. 16/2012/TT-BYT dated October 22, 2012 of the Ministry of Health on the food safety conditions applicable to establishments that produce and trade food, instruments and materials for wrapping and storing food under the management of the Ministry of Health (Circular 16)

- Circular No. 19/2012/TT-BYT dated November 09, 2012 of the Minister of Health guiding the Declaration of conformity and declaration of compliance to food safety regulations (Circular 19)

4.2 Micro environment analysis – market analysis

4.2.1 Functional food market in Vietnam

Across the Asian Pacific region, health supplement market was expected to grow by approximately 28% from 2002 to 2018 because the wealthier the growing population is, the more concerns they have regarding the healthy products. Therefore, it has been foreseen that there will have an increasing demand from Asian consumers in terms of functional food products in the future. By popular demand of healthy products, it does not only offer many opportunities for functional food companies but also requires them to improve their product quality in order to catch up on consumer trends (Website of the ASEAN Alliance of Health Supplement Associations). Vietnam is no exception to the growing trend of functional food ranges. According to Dang Tran – Minister of Vietnam Association Functional Food (VAFF, the functional food market in Vietnam has been blooming explosively in 5 recent years. (Website of the Vietnam Institute of Dietary Supplement). In 2000, there were more than 60 companies that produced and imported functional food with more than 400 product types. However, this sector has been developing rapidly in the next 10 years and has been recorded to be one of the fastest growing markets in ASEAN. Particularly in 2011, the number of producing enterprises had spiked up to 1600 enterprises with 3700 kinds of functional food products. The records in 2013 show that Vietnam had more than 10 000 product types of which roughly 40% were imported products. Among all kinds of products, health benefit segment dominated the functional food and beverage market in Vietnam in which Amway is observed to lead the race (Vietnam Nutraceuticals Market... 2018).

Even though the functional food market in Vietnam is on the rise, the domestic functional food industry was struggling due to the lack of high-tech producing system and the costly price. There are a lot of reasons that the functional food industry in Vietnam is still limited compared to the global standards. First of them is the pricey importing

tax rate for raw materials that makes up 30% of the selling price per unit. Second, the government hasn't had any clear policies to support the functional food producing companies while the number of them keeps increasing over control to guarantee the product quality. Thirdly, the design and package of domestic functional food products have not been really appealing to the customers when there stills exists a part of people who lived in suburban areas and do not know much about functional food (Anh M. 2013)

It was said that the functional food market in Vietnam has been rocketing. However, the government should consider it as an economic sector with official policies, more concentration on technological investment and the incentives for tax, the functional food industry in Vietnam will be sustainably developed.

4.2.2 Oat products market in Vietnam

Oats are whole grain food with a scientific name as *Avena sativa*. Oat is considered one of the healthiest grains worldwide because of the nutritious sources from vitamins, minerals, fiber and antioxidants. Oats also have a lot of great effects on human's health including dietary, lower blood sugar levels and a reduced risk of heart disease (Website of the Health Line Media)

Across the globe, this kind of grain can be well-grown only in some certain lands and nations. Because of the typically tropical climate, Vietnam is not an ideal place for oat harvest. However, with the growing disposable income and the fast modernization, Vietnam is a promising market for convenience product, such as the whole grain or plant-based product types.

About the imported oats in Vietnam, top suppliers are Malaysia, Australia, the United States and Canada. The limit of high-tech system in producing functional food as nanotechnology is the reason that oat imported to Vietnam mostly are processed oats as cereal grains, oat milk, oat biscuits, rolled oats, oats flake, etc.

Table 5. Top suppliers of processed cereal grains in Vietnam (Oat opportunities in the... 2018, 44)

Top suppliers	CAD\$ Value – Annual year		
	2015	2016	2017
World	1,119,935	1,783,159	2,088,956
Malaysia	589,000	771,775	724,119
Australia	96,637	361,397	601,005
United States	165,475	394,492	532,168
Canada	9,267	31,771	72,809



Picture 1. Instant oat meal- The most popular product type of processed oats in Vietnam (Website of Lays Vietnam)

4.2.3 Market size and consumption trend of oat products in Vietnam

Even though the Vietnamese population is increasing, and the quality of living standards have improved, the market for oat products in Vietnam is a little narrow. The reason for that oats are not quite popularly reaching out to Vietnamese customers. Currently, Vietnamese only consume oats as breakfast which is used mainly among children and diet programs. However, there are still the lights for oat retailers in the future. The revenue of the breakfast cereals segment added up to US\$ 273 million in 2019 and it is forecasted to grow annually by 5.6% for the next 4 years. Additionally, the

average per capita consumption reached 0.6kg in 2019. (Website of the Statista). Alongside with breakfast cereals, oats are also in use for cattle feed in Northern Vietnam. Thanks to the oat resource for cows, it allows higher milk quality and helps to reduce feed cost. Despite Vietnam being a price-sensitive market in Asia, customers are often willing to pay higher price for quality products within their convenience, especially the imported functional food (Oats opportunities in the... 2018, 45)

4.2.4 Distribution channels

The remodeling of social system and the changing of awareness among young generation in Vietnam when this country has been globalizing is an opportunity for modern retail oat products. The modern retail food channels are rocketing and the competition in this sector is heating up more than ever before. First tier cities as Hanoi and Ho Chi Minh City are the two biggest markets for modern retail oats. The domestic traditional retailers still dominate the distribution. However, new players continue to invest in the Vietnamese retail food sector to take advantage of the growing market for healthy food products. The modern channels such as convenience stores, supermarkets, and hypermarkets are witnessing a booming number of healthy food and processed oats. Below is the list of top distribution channels across Vietnam.

Table 6. Top hyper and supermarket chains in Vietnam

Retailer	Outlet type	Outlet # (2018)
Aeon Mega Mart	Hypermarkets	6
Aeon Fivimart	Supermarkets	23
Aeon Citimart	Supermarkets	29
Auchan	Supermarkets	20
Big C	Hypermarkets and Supermarkets	35
Co.opmart	Supermarkets	96
K-Mart	Supermarkets	60
Lotte Mart	Supermarkets	14
MM Mega Mart	Wholesales stores	19
Vincom	Department stores	54

Vinmart	Supermarkets	63
----------------	--------------	----

Table 7. The number of top convenience stores in Vietnam (Oat opportunities in the... 2017, 47)

Convenience store	Outlet # (2018)
7-Eleven	18
Annam Gourmet	5
Bach Hoa Xanh	384
B's Mart	168
Circle K	278
Co-op Food	210
Co-op Smile	76
Family Mart	120
Foodcomart	38
Hapromart	20
Ministop	120
Qmart +	7
Satrafood	180
Shop & Go	121
Vinmart +	812

Across the distribution channels for oat products as well as other kind of functional food, there are no product that has performed as a stand-alone oat category. These top products are the most popular which contain oats or have oats as the main ingredient.

Table 8. Retail sales revenue of Vietnamese packaged food products contain oats 2012-2017 (USD\$) (Oat opportunities in the... 2018, 49)

Category	2012	2013	2014	2015	2016	2017
Baby Food	914.9	1,109.8	1,287.7	1,333.6	1,393.0	1,434.4
Sweet Biscuit	230.0	254.2	276.2	291.7	315.5	344.5

RTE Ce- reals	3.5	4.2	4.8	5.2	6.1	7.0
Chil- dren's Break- fast	2.1	2.7	3.1	3.5	4.2	4.9
Muesli & Granola	0.1	0.1	0.1	0.2	0.2	0.2

5 METHODOLOGY

5.1 Research method

Broadly speaking, research is divided into two main approaches: qualitative and quantitative methods. Quantitative research is about using statistical analysis to examine, measure, quantify and reflect the relationship between the variables. Quantitative research is often used for many spheres of life due to its standards of strict research designs and the methodological principles (Hoy & Adams 2016, 3-5)

Particularly in this thesis, the author used many statistics in the form of survey questions. Questions are designed to receive answers and information regardless of the different angles of attitude, habit, intention, interest and buying behavior. The quantitative approach is chosen after gathering all the essential responses because it helped to explain the connection between empirical observations in a systematic expression and an accurate estimate. Structured responses from the survey question can be displayed in percentage, average or other types.

5.2 Research approach

There are different possible research approaches to pursue a study, however, the most popular ones are deductive and inductive approach. The distinct point between these

two approaches is the relevance of hypotheses to the research. The deductive approach checks on the validity of the existing hypotheses, whereas the inductive type involves a specific observation to generalize a new idea/theory. An illustration will clarify how contrast are the deductive and inductive approach in a carrying research project.

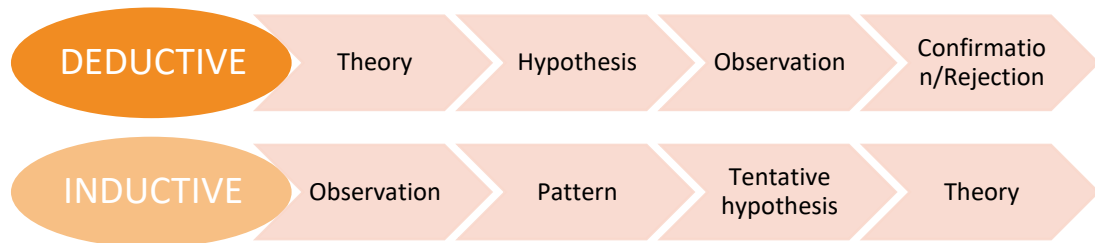


Figure 8. Deductive approach and Inductive approach (Website of Research Methodology 2018)

The research approach can be adopted based on the nature of the research project. The intention of the author is to initiate a broad situation in both current and new market of functional food and oat product in Vietnam. Through the market research in this project and a survey question, another specific purpose is to encourage foreign firms to invest in Vietnam in the related field. Accordingly, the deductive approach was chosen.

5.3 Data collection method

Frequently, primary data source and secondary data source are required to generate the research. Primary data collection is directly collected through observation, interview, survey or daily notes all by the author, meanwhile secondary data collection is the source from book, article, or other available sources elsewhere that the author was able to access into them (Adams, Khan, Raeside & White 2007, 107&117).

In this thesis, a combination of primary data collection and secondary data collection is applied to fulfil the requirement of the market research. Primary data is mostly collected from the survey answers of more than 100 respondents located in Vietnam. They

are all Vietnamese nationality and over 18 years old which were asked to answer 15 questions in total to know how well they know and use functional food and oat products. About the secondary data, a more valid and trustworthy source is from books and e-books acquired from school library. In order to supplement the market research in terms of critical readings, the author also searched for information on the notably reliable electronic sources. Due to the large amount of information needed for the analysis and the desirable limit of the thesis, all the context and literature are written in the author's use of vocabulary and also in summary form.

5.4 Population and sample

Population is defined as a statistical pool from which a sample is taken. Further, population in research can be considered as the people whom appeal to the interest of the researchers in outlining the outcomes of the research. Generally, population refers as the total number of units including individuals, organizations, events, objects or items and samples are acted as the measurement (Saunders, Lewis, Thornhill 2015, 294).

Due to the large size of the population, researchers may find it inaccessible to collect and analyze all the collected data. Therefore, they would need to select a sample that represents the desired characteristics of the entire population. As a result, a suitable sample is taken from the population is called sampling method. There are two types of sampling methods: probability and non-probability. Probability means that each element of the population is equally to be selected while non-probability sampling method is used for the researcher's convenience. (Adams, Khan, Raeside & White 2007, 72-73)

In probability sampling technique, it includes 5 different methods which are simple random sampling, stratified random sampling, systematic sampling, cluster sampling and sequential sampling. About the non-probability sampling technique, 4 methods are broadly applied in research. They are convenience sampling, judgment sampling, quota sampling, and the final one is snowball sampling. (Adams, Khan, Raeside & White 2007, 74-75)

Concerning the purpose of this market research, population is represented by the Vietnamese people who are at least 18 years old and living in Vietnam, thus, for this frame of target respondents, convenience sampling method is adopted. After defining the population and choosing a suitable sample, the survey is conducted and then sent to target respondents on Vietnamese healthy food consumer groups on social media platforms.

5.5 Designing the questionnaire

According to Brace (2008, 2-4), questionnaire in research is either used for self-completion through the responses answered by survey participants or for being administered by an interviewer. In some cases, the term “questionnaire” refers simply to a list of questions that contains both open-ended and closed ones. It is broadly used in the quantitative research method due to its possible function of carrying out a large range of data. To help respondents give the best information, the researcher is aware of giving out a well-constructed questionnaire and pay attention to word choice for the best tailored vocabulary range of the respondents. For this research, the author is carefully when using unambiguous vocabulary and giving a clear instruction in each question in order to avoid the mistaken interpretation from the respondents. Furthermore, the survey question form is approved beforehand by thesis supervisor that helped to improve the validity of data.

In this case of the market study of functional food and oat products in Vietnam, the questionnaire is designed to access the different factors which in turn cover the research objectives. Regardless of types of question, there are 15 questions in total, in which two of them are not mandatory to answer. The other 13 ones are all closed questions written in the style of checkboxes and ranking questions. In order to help respondents not feel reluctant to answer the questionnaire, the author firstly started with warm-up questions to ask for background information, followed by the topic-related questions about how much Vietnamese people know and use functional food and oat products. In terms of way to reach the respondents, the format from Google Form is applied effectively and sent via emails and groups of Vietnamese customers on social

media platforms. A full-detailed list of question can be found in the Appendix 1 in this thesis.

5.6 Data analysis

Commonly, there are three main quantitative data analysis called frequency distribution, crosstabulation and hypothesis testing. Frequency distribution is an arrangement of the values using a mathematical system to count the frequency distribution of given variable. Crosstabulation, by contrast, performs the relationship between two or more variable simultaneously. Hypothesis testing refers to the formal procedure of examine the assumption about a population parameter that stated early in the research (Saunders, Lewis, Thornhill 2015, 583-603).

The input data from the questionnaire is in use for this thesis will be analyzed by adopting both frequency distribution and crosstabulation methods. In order to dissolve the frequency of using oat products and the knowledge about the functional food types of Vietnamese customers, data is performed mostly in column format utilizing Tableau technology.

5.7 Validity and reliability

Validity and reliability are two elements that measure whether the implementation of the findings and evidence-based writings are well-conducted in a research project. The consistency during the research lies on the reliability of varieties which are measured, whereas validity is defined by the strength of the author's assumption, inference, and propositions. To another extent, research's problem is considered legitimate and trustworthy when the results do not change over period even if questions and external situations remain the same. Also, the author must be cautiously aware of the accuracy and persuasion of the information obtained (Adams, Khan, Raeside & White 2007, 235-238).

In this thesis, the author tried to apply a large amount of academic, authentic and authorized information from books that were often used for business student. Besides,

the information source from electronic publishers are mostly e-books, trustworthy journals and nationally authorized newspaper.

On the experimental side of this market research, the survey questions have corresponding content to the thesis object. They were carefully read and approved by the author's supervisor to be then published on social media. The analysis and assumption thus relied on both academic sources and respondents' answers. Accordingly, the validity and reliability of this thesis is guaranteed.

6 RESEARCH FINDINGS AND ANALYSIS

This chapter presents the research findings and the research analysis based on the results that the author gathered from the survey. All of 15 questions in the questionnaire are displayed in many forms, consists of single choice, rating scale and open-ended questions. The survey was sent to emails of the author's family members, friends and acquaintances as well as posted on the local Facebook groups of health food community. After one month of answering procedure, there were 101 responses in total from different respondents' groups.

6.1 Background information of the respondents

The survey started with 4 warm-up questions asking about the respondents' background information. The first two questions were about the respondent's gender and their age range. Due to the large market size of the topic and the survey was posted on a bunch of groups; the age range has no boundaries. However, the ideal respondents should be at least 18 which is eligible for having adequate income to purchase the functional food products.

Out of 101 answers, there were 4 groups of classified age. The majority of respondents was from group of 25-34 years old, which took up to 31.63% in total. Scoring at the second spot was the answer from the age group of 18-24 that accounted for 29.59%. As seen in the figure 9, in the matter of which gender had responded most to the survey,

the author recorded that the female took the biggest part of 68.36%, next is the male sex made up for roughly 30% and finally the other gender only took a small portion by 2.05%. Even though the female respondents had a larger portion in most of the age categories compared to the other gender groups, still was a difference spotted in the result. There was 2.04% of male respondents higher than 1.02% female participants in the group of over 56 years old. In terms of classified age from 35-55, not many responses were received, therefore, it only took more than 9% among 101 participants.

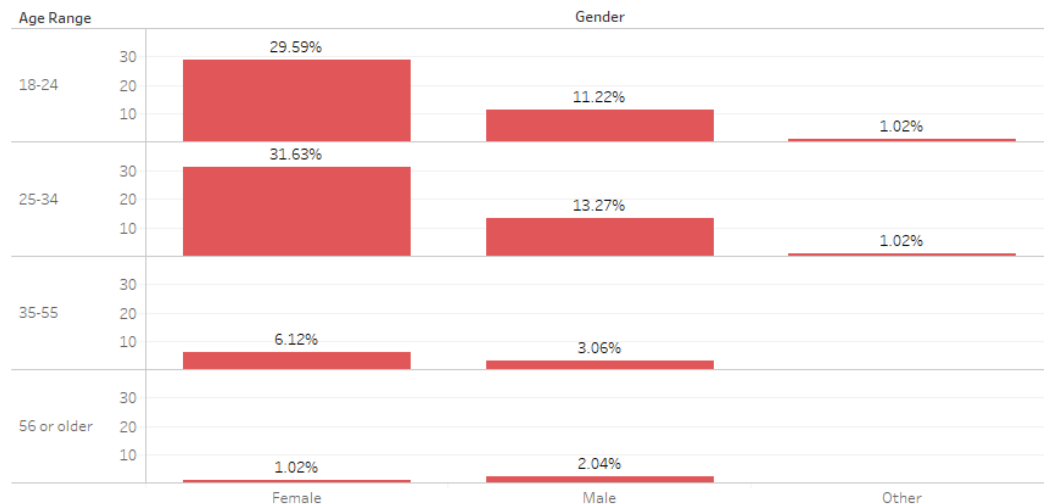


Figure 9. Respondents' age and gender (N=101)

The next figure illustrates the results from question 3 and 4 in the list of 15 survey question. The author wanted to know about respondents' monthly income and what they do in life to enhance the diversity of variables. To avoid the possible complexity, the occupation category was divided into 4 particular groups consisting of students, employees, retirees and other types.

It can be seen in figure 10, the student group was the largest number of participants also the ones who earn least of below €100 per month. It is easily understood because that group of respondents, which recorded 25.51% of the whole, mainly earned money from their part-time jobs. However, among the student group, some earned higher salary from €500-€1000 that accounted for 18.37%. The ones who actually worked full-time and have the average salary from €100-€500 in Vietnam under a so-called name employee took the third place of 15.31%. Only 8.16% in the employee category of 101 participants earned over €1000 each month. Compared to these two occupation groups, the retirees just accounted for more than 4% in total, in which half of them earned the

highest payment. The other occupations also took only 4.08% in total and no respondent in this category earned higher than the average monthly income.

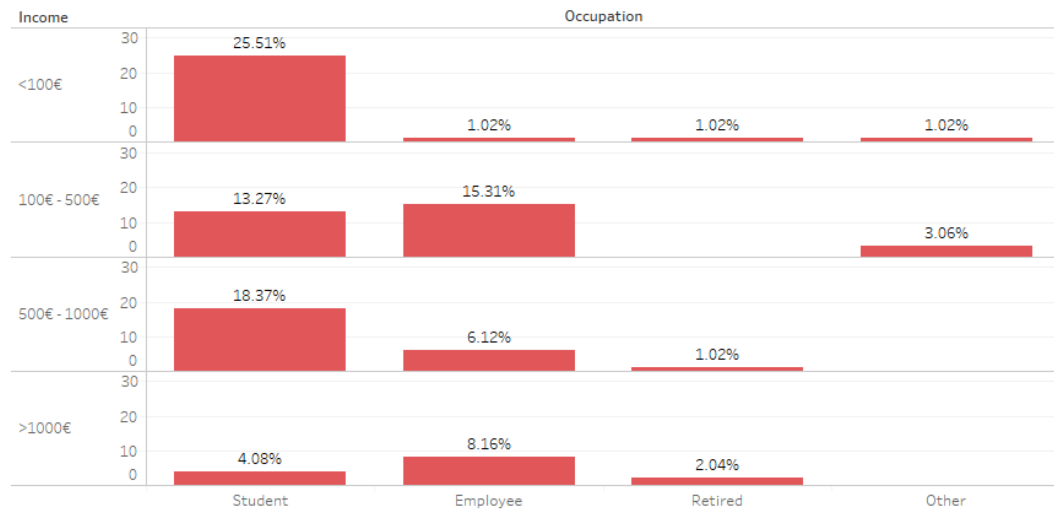


Figure 10. Respondents' occupation and income (N=101) (€ Euro hundred/month)

6.2 General knowledge and consumption of functional food

6.2.1 Consumption of functional food

Followed by the first four background questions are the in-depth questions which were constructed to ask for information of general comprehension of respondents regarding functional food and oat products.

According to 101 participants, nearly 27% of them stated that they have never used functional food before, 38% said that they already used several times and 36% had tried it only one or two times.

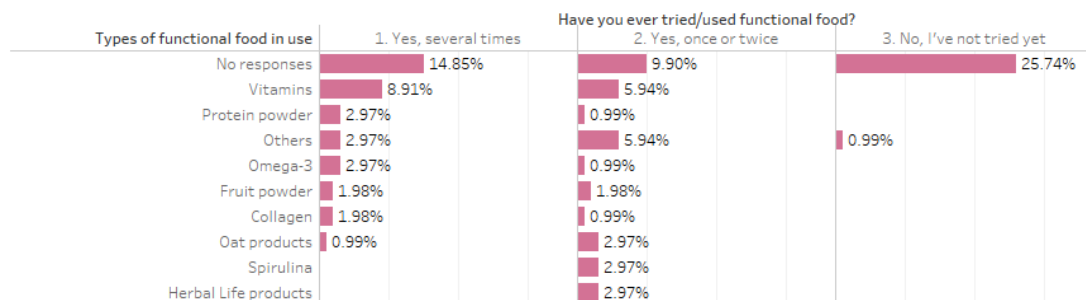


Figure 11. The level of using functional food and types of them

When asked to name a type of functional food that the respondents used or knew about, the answer that got the highest rate of 14.85% was vitamins in general. According to Euromonitor International, the increasing demand of vitamins and minerals is due to the aging population, rising incomes and the belief of its ability to improve skin and hair. On the other hand, there were various types of functional food that are consumed by the participants. Figure 11 shows that the protein powder, fruit power, omega-3 and oat products share an equal record of 3.96% in each category. Besides, 2.97% of the respondents also listed collagen as one of their tried functional food as same rate as the use of spirulina and Herbalife products. The other types of functional food products that had been used by the respondents scored 8.91% in total.

Based on the income level result in figure 10 the respondents were asked if they were happy to spend a part of their salary each month for the use of functional food applying the rating scale format from completely agree to completely disagree.

To the respondents who earned below €100, they somewhat agreed to spend some money on functional food each month which also recorded 11.88% at the highest rate, whereas the lowest rate was 0.99% for people who complete disagree with this statement. As same as the <€100 income group, 10.89% of the average income group somewhat agreed to purchase functional food monthly. On the other side, 9.90% answers from the participants who earned €500-€1000 were completely happy to spend a part of their income for functional food. Compared to this category, people who earn the most income level out of 101 participants is recorded only 5.94% somewhat agreed to buy functional food each month. However, nearly 4% of them completely rejected to spend some of their money on this product line. The other results are performed in full detail in figure 12.

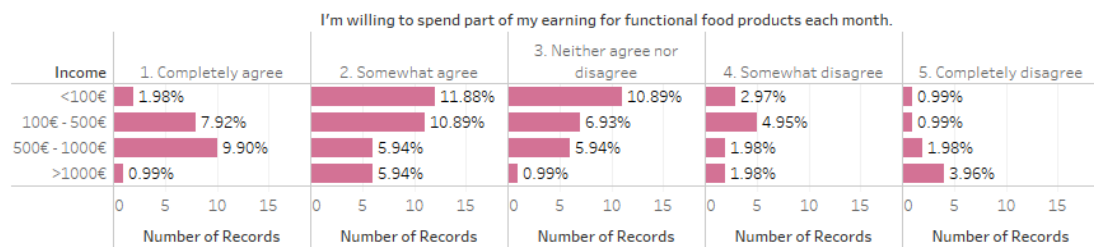


Figure 12. Respondents' willingness to purchase functional food products per month

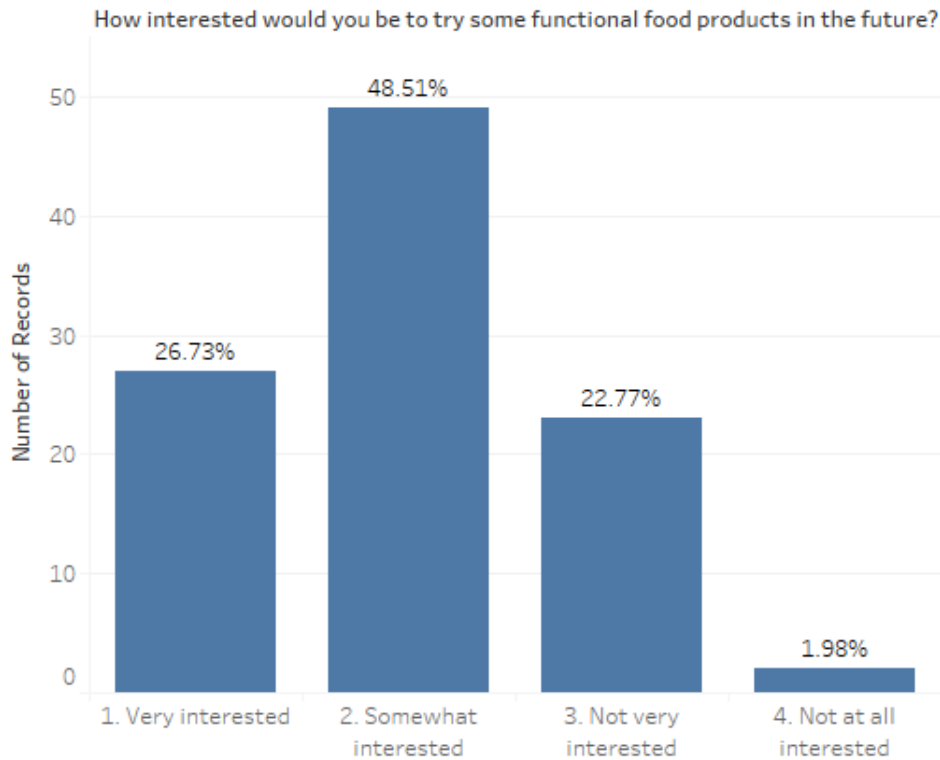


Figure 13. Respondents' interest in using functional food products in the future (N = 101)

In figure 13 the author received the result from 101 respondents concerning if they were interested in using functional food in the near future. On top of the result, 48.51% participants said that they would somewhat agree to use functional food in the upcoming time. Followed by the positive signal in term of using functional food in the future, the group of respondents who insisted on their interest scored 26.73%. Only 1.98% in total of answer claimed their disinterest and 22.77% said that they were not very interest in this type of product.

6.2.2 General knowledge about functional food

To some extents, participants believed that functional was were good for health but not all of them agreed with this statement. Figure 14 displays the level of respondent who said yes to the positive effects of functional food, from which 58.42% somewhat agreed. 20.79% completely believed in functional food's positive impacts on human

health, whereas only 1.98% not agreed at all. There were a small number of respondents said that they somewhat disagreed to functional food healthy effects. The rest of the respondents kept neutral attitude of stating that they neither agreed nor disagreed.

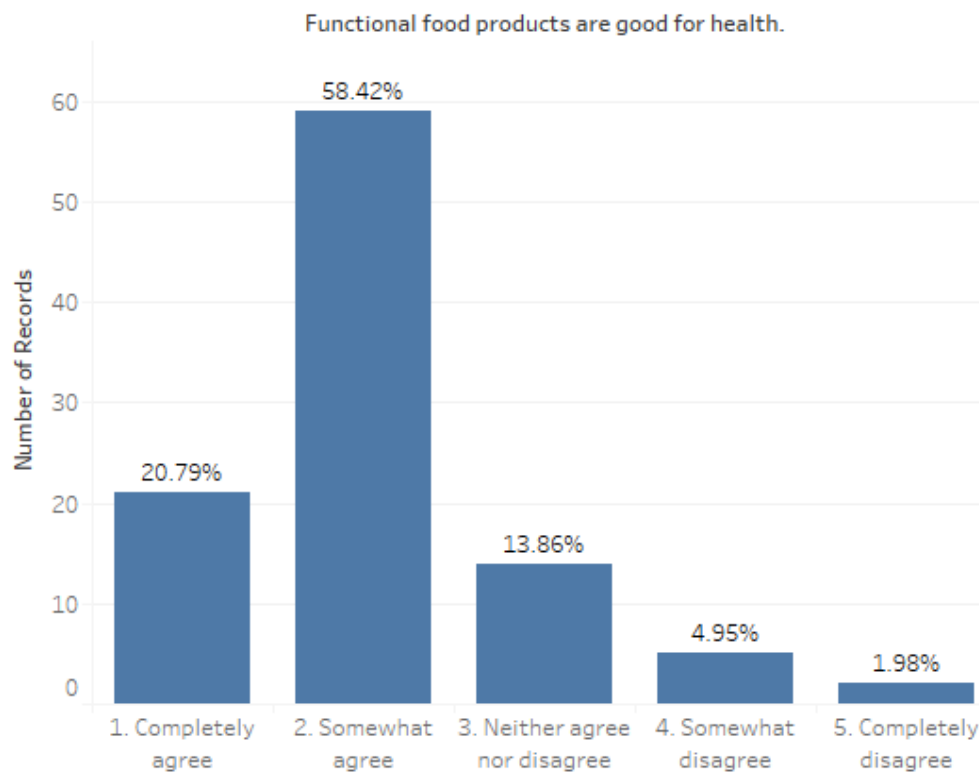


Figure 14. Agreement on the benefits of functional food to human health

The next question was to find out whether participants thought that functional food were popular as in the biggest distribution channel in Vietnam as supermarket. To the answer of respondents who completely agreed, the author received 39.60%. On top of the chart were the ones with the answer of somewhat agree at 44.55%. For the ones who were unsure of the popular of functional food provision at the grocery store or supermarket seen at nearly 9%. A very small part of participants declared the fact that functional food products are easy to find at the supermarket were skeptical. Among of them were only 3.96% people who somewhat disagreed and 2.97% of participants completely disagreed. The result somehow pictured a positive signal of functional food distribution across Vietnam.

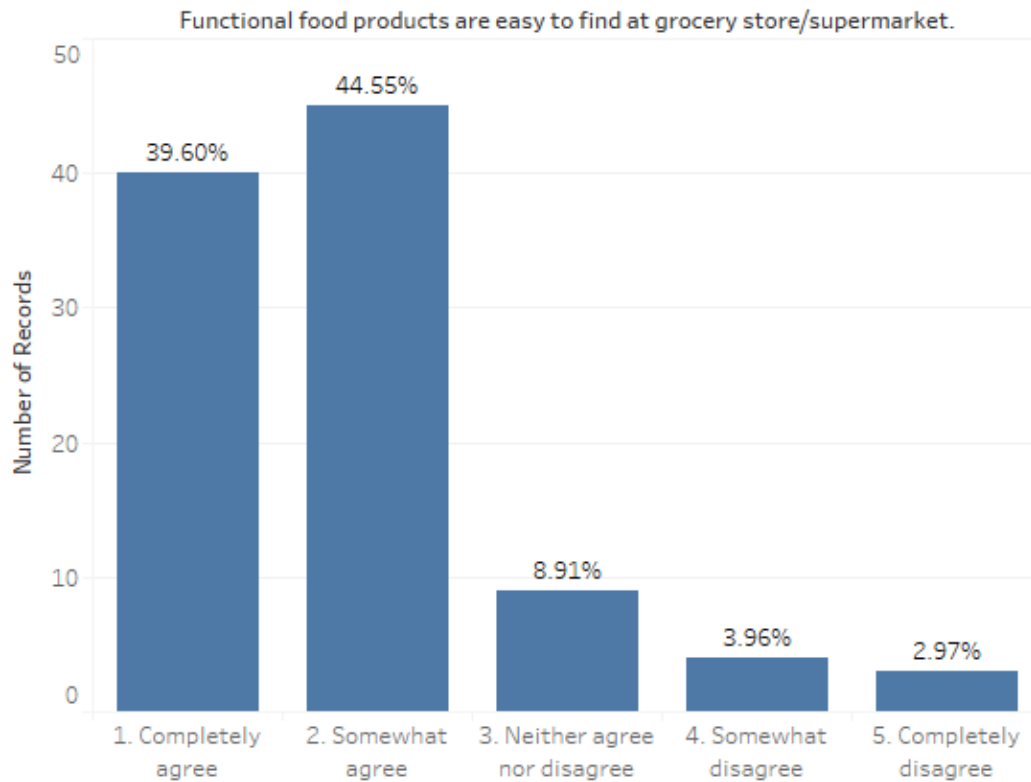


Figure 15. Agreement on the popularity of functional food across supermarkets (N=101)

6.3 Criteria affecting the choice of functional food

In terms of the important criteria that affect the choice of functional food consumption, the author listed some of possible criteria from which the respondents could choose. Due to the unforced condition of this question, there were not all 101 participants gave their answers for all of the criteria.

According to table 9, 42 respondents said they totally agreed on the statement of natural food with the same beneficial components as in functional food are preferable. This could be a challenge for functional food producing company in the matter of changing Vietnamese customer's belief. Besides, respondents were confused about the positive and negative information of functional food on the market. It is displayed in table 9 that the number of people who somewhat agrees and somewhat disagreed were 21 for each of them. There were 30 out of 97 respondents claiming the neutral view-

point of the criteria that they were suspicious of the manufacture’s added health benefits on functional food products. however, 26 of them still somewhat agreed with this matter.

In regard of the functional food products price, 31 respondents partly agreed that this type of food were expensive, whereas a small number of them completely disagreed. There was a fact resulted from the survey answers that a big part of respondents was not sure of the claimed health aspects of functional food. Among 96 answers, 18 of them completely agreed with this statement and 26 somewhat confirmed they were somewhat unfamiliar with the ads of added healthy ingredients from functional food companies.

On the different note, most of the respondents thought that functional food neither tasted good nor bad. Nevertheless, the taste of functional food was not good stated by 23 respondents as equal to 22 thoughts of that taste was great sometimes. The last criteria might directly involve in the purchasing habit of Vietnamese customer was the diversity of functional food. The more functional food categories there were, the more disorientation of choosing the right product would be. It was true according to the result from the questionnaire which showed that there were 29 among 86 respondents completely agreed. 25 people gave the feedback that they thought it was somehow true when it comes to many functional food categories so it was hard to make the right choice.

Table 9. Important criteria of functional food choice

Criteria of functional food choice						
Criteria	1.Com- pletely agree	2.Some- what agree	3.Nei- ther agree nor dis- agree	4.Some- what dis- agree	5.Com- pletely disagree	

I am confused about the positive and negative information about functional food	14	21	31	21	10	N=97
I'm skeptical of the manufacturers and their ads of added health benefits	16	26	30	17	8	N=97
I do not know enough about the claimed health aspects of functional food	18	26	21	16	15	N=96
I prefer natural products with the same health beneficial components	42	12	14	6	22	N=96
Functional food does not taste good sometimes	9	23	34	22	8	N=96
Functional food products are expensive	12	31	27	18	8	N=96
There are too many functional food categories to choose from for desired health benefit	29	25	18	14	10	N=96

6.4 General knowledge and consumption of oat products

6.4.1 General knowledge and consumption of oat products

Moving to one of the important parts of this research is to know about how Vietnamese customers know about oat-based products. Looking at figure 16 the author realized the

number of respondents who have never tried or used oat products took quite a big portion. Up to 26.73% people said that they have never tried or used oat products and therefore were not able to name a type of them. However, more than 70% of the rest of the respondents confirmed they either used oat-based products more than one time. Among all the types of oat-based products were available on the market, 22.77% of total voted oat milk are the highest consumer goods. Oat meal and types of instant oat were also appealing to 10.89% people who answered the questionnaire. Besides, oat cereals, oat biscuit and products from whole oat only took a small part of the result for the question of naming oat product types.

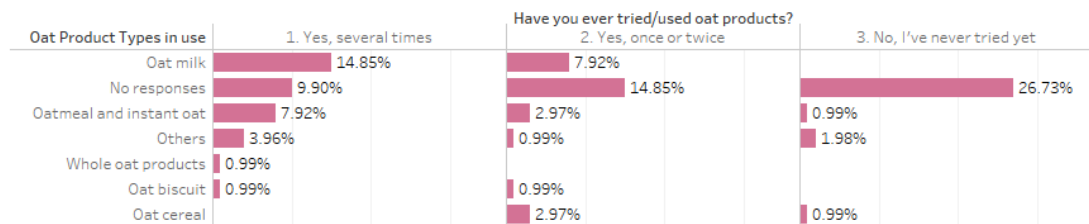


Figure 16. The level of using oat products and types of them

The next question is directly contributed to the possible investment of functional food companies in Vietnam in the future thanks to the positive result displayed in figure 17. The graph displayed nearly 80% of people agreed with the beneficial effects of oat products in lowering cholesterol level. 15.84% people said they have no certain knowledge about that. Only a small scale of participants claimed that those benefits are somewhat untrue. Lastly, the people who completely disagreed with oat products' benefits just took 2.97% of the total. As the result, a lot of respondents thought that oat products brought many good impacts on human health. From this point of view, it can be assumed that people purchased oat products mainly driven by its healthy effects.

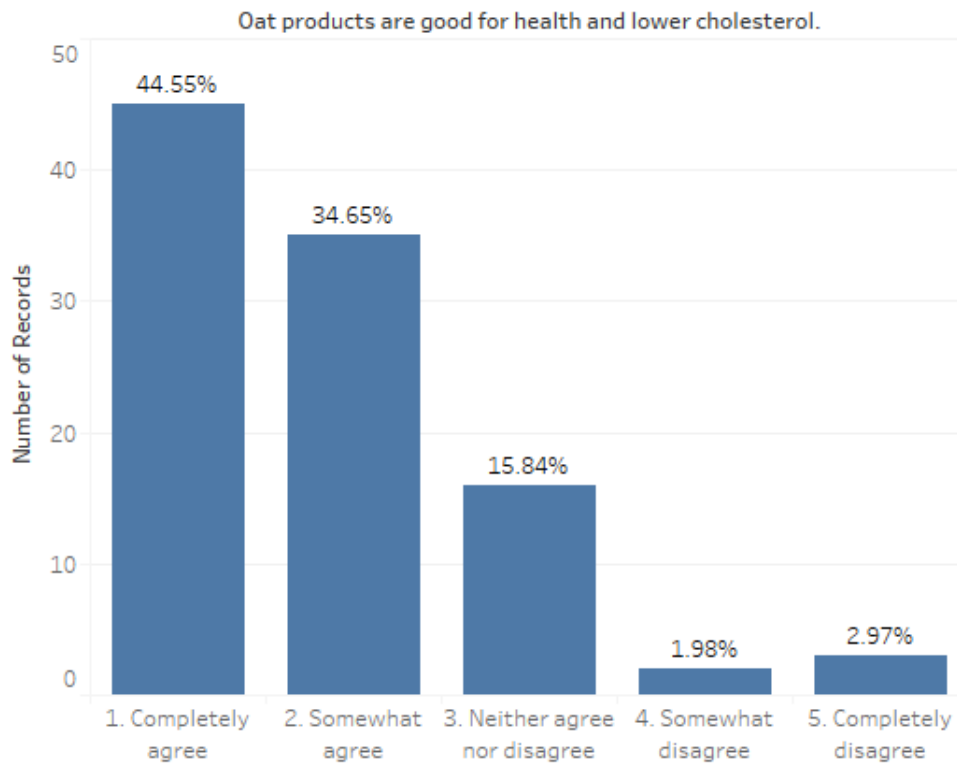


Figure 17. Agreement on the benefits of oat products to human health (N=101)

6.4.2 Intention for using oat products

From 101 valid responses, the number of answers stated the interest in using oat products in the future outnumbered the disagreed ones. In figure 18 it is easy to see that more than 45% of respondents completely agreed to try oat products the upcoming time. 42.57% of the respondents considered of using this product type, whereas only 9.90% showed their disinterest in oat products. Lastly, roughly 2% claimed that they were not at all interested in using products from oat in the future. This brief overview of the survey result exposed many possible opportunities in the future for the market expansion of oat-based products

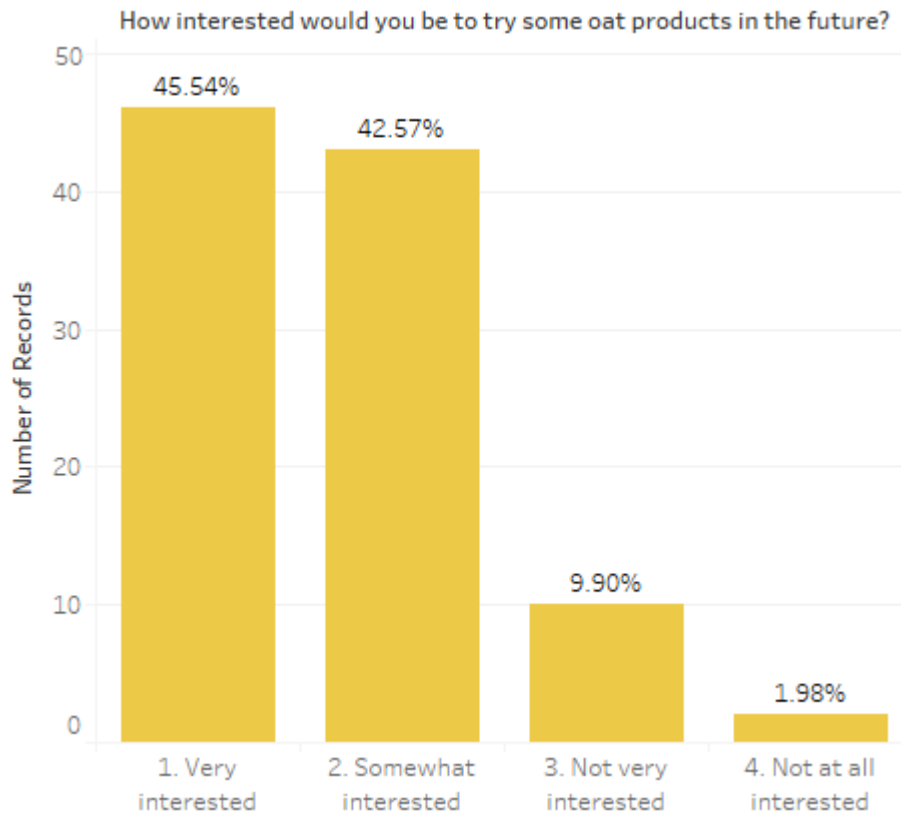


Figure 18. Respondents' interest in using oat products in the future (N=101)

7 SUMMARY AND CONCLUSIONS

This chapter will present the summary and conclusions drawn from the literature review, research findings and analysis of the previous chapters.

7.1 Summary

In a nutshell, based on the knowledge of marketing mix analysis of country analysis and market research, this thesis helped to further establish the foundation Vietnam functional food market and oat products.

PEST analysis tool was used to divulge the typical features of Vietnam, in which the country had been under a transitional time from a poor country to one of the fast-growing places all over the world. The increasing GDP, the middle-class growth, the

non-stop updating technology on social life and a blessing environment all contributed to make Vietnam became a developing country over the past years. These elements are also the key reasons that has been attracting investment from other countries to Vietnam.

In terms of functional food market in Vietnam, it was quite prospective with more than 60 domestics and foreign manufacturers and over 400 hundred different types of products. Nevertheless, it needs to be reinforced in the future concerning more high-tech developments for the functional food companies and less imported ingredients in order to cut down the selling price. On the other hand, the oat-based product market in Vietnam was still quite narrow because the using habit of oat among Vietnamese customer was obscure and the limited choice of oat products.

In brief, it was easy to see that functional food and oat products market in Vietnam gave out both challenges and opportunities for the existing manufacturers as well as the desired investment in the future.

7.2 Conclusions

This market study was conducted to evaluate Vietnam's functional food market and oat products consumption in order to gain some valuable insights for possible investment in the future. To assist the whole picture of Vietnam market in this field of products, the research objectives will be answered as the following:

- *What are the typical features of Vietnam's functional food market?*

Throughout the research about micro analysis of functional food market in Vietnam, some typical features have been uncovered. Vietnam was ranked as one of the developing economies in the world and has been on the rise. It has been recorded that there were more than 60 functional food manufacturers with approximately 400 different product types. It was a remarkable number since Vietnam was still a new market compared to other countries which had the tradition of using functional food products.

However, the functional food market in Vietnam is still narrow. Through the survey result, people did not expose to know about many different types of functional food

except vitamins as the most popular choice. Besides, due to the fact that a huge part of functional food had been imported from overseas companies. As the result, functional food products were not good enough and the costly price from the imported products restrained the will to use functional food by Vietnamese people.

Additionally, the increasing number of functional food companies while there was lack of high-tech mechanism and proper supervision caused a concern for the local government in the matter of controlling functional food industry. Because of the poor quality of packaging, many Vietnamese customers were not appealed to domestic functional food even though they acknowledged its benefits.

- *What is the prospective development for Vietnam functional market?*

No doubt that with the increasing income and changes for better living standards in Vietnam, the development of functional market in this country is promising. Regarding the interest to use functional food in the future and the number of people who were happy to spend money for functional food purchasing each month, respondents gave out a picture of their willingness on consuming functional food. The motives behind are most of them claimed their agreement with the statement that functional food would bring extra positive effects to health. Therefore, it would be a valuable insight for functional food manufacturers to concentrate more on producing functional food in terms of healthy products rather than on the beauty-improving food.

- *How is the consumption level of oat products in Vietnam?*

Among all of functional food products, oat was considered one of the most healthy and easy-to-eat food types which had been proved in the North American country, Europe, and Australia. Even though Vietnamese people claimed the beneficial effects of oat in lowering cholesterol level, they have not developed the habit of consuming oat products. It is reported that oat products in Vietnam are mostly imported from other countries. The highest consumption of oat-based products was oat milk and the second position were oat meal and instant oat. They were mostly consumed by children for breakfast or used for diet meals by the adults. Nevertheless, the large range of distribution channels across the whole nation somewhat dedicated to the popularity of oat products on the market. Accordingly, the more popular of oat products was, the more promising of its consumption would be in the near future.

- *What are the internal and external factors/challenges which may affect foreign investment in functional food market?*

In terms of internal factors that may affect the foreign investment in functional food market in Vietnam, the rapid growth of local economy should be the key one. Due to the development of Vietnam, the GDP rate has increased over the past years, the upgrading living standards and high demand on clean and healthy food are the main points that should be taken into account. Any intended investment should not only focus on the functional food and its healthy effects but also considers of the key factor of products that help them to stand out from the crowd. As seen in table 9, Vietnamese consumers were reluctant to buy functional food products because there were already many products with similar assuring effects. A number of people who answered the survey said that it was hard to make the right choice.

Another key internal factor of Vietnam market was the high price of functional food product in the current time which might be a reason explaining why people rejected to purchase it regularly. Even though GDP of local citizens have increasing, the average income was still at the low rate compared to other developing countries. According to the survey, respondents were mostly young people who have not earned a lot while 40% of functional food products in Vietnam was imported, therefore, they are sold for an unaffordable price.

The habit of consuming oat products is considered as one factor that investors should be aware of. The consumption level of oat and other functional food product types may be driven by the eating habit. It was possible to make the transition of consuming oat products from a specific group of people to the entire community, however, it may take time to make this practical.

On the other hand, external factors could be either challenge or opportunities for further investment in the long run. As performed above in figure 11 and figure 16, the types of product of functional food as well as oat's which the respondents listed were in the limited options, whereas a big part of them were from foreign producers. It can be said that whether this market study is used as a reference for both domestic and

foreign investors, the diversity of functional food products should be taken into consideration. There were a lot of imported functional food products, however, they were mostly the same category among a variety of functional food. It could be the chance for investors in this field to introduce a whole new product category besides of vitamins, protein powders, etc. Also, Vietnamese people would be offered the other types of functional food and possibly change their eating habit step by step when they had a wider range of products to choose from.

7.3 Suggestion for further research

The purpose of this market study was to evaluate the functional food market and oat products in Vietnam from which further intended investment could use for reference only. The outcome of this research has been well constructed and presented in this thesis. However, after writing the research and conducting the survey, the author had identified two limitations.

First of all, this thesis only examined the Vietnam functional food market, oat products and its typical features without a case company's portfolio. Therefore, in the future, a more in-depth research would be presented with the overview of the case company that works in the functional food industry. Second of all, the sample size of survey was quite modest with only 101 valid participants which may be a cause for the concern of an accurate analysis. Therefore, a bigger number of responses should be taken into account for a more precise analysis in the future regarding Vietnamese functional food market and oat products consumption.

8 FINAL WORDS

To have a comprehensive evaluation of Vietnam' functional food market and oat products, the utilization of theoretical part and survey's analysis are applied to uncover the market insights. The research findings were published based on the gathering survey answers and analysis of collected data.

It is obvious that there are some obstacles the author had to face during the process of conducting this market research. A part of the challenge is due to the limited conditions of small sample size and the lack of sufficient suggestion of case company. The outcome, therefore, has not been covering the essential patterns of all consumers and in-depth features of functional food market. However, this thesis solely proposed the purpose of market evaluation and may be a source of reference for possible investment in the future. The approaches of this thesis concentrated only on overall knowledge of Vietnam functional food market and oat products, therefore, a more far-reaching research concerning of marketing strategies or competitor analysis could be conducted in the future for any desired purposes.

REFERENCES

- Adams, J., Khan, H. T. A., Raeside, R., & White, D. 2007. *Research methods for Graduate Business and Social Science Students*. New Delhi. Sage Publications Ltd.
- Anh, M. 2013. *Functional Food in Vietnam*. Vtown 28.11.2013. Referred 05.09.2019. <http://vtown.vn/en/articles/functional-food-in-vietnam.html>
- Ball, A. 2016. *Vietnam's Growing Middle Class Expected to Double by 2020*. Voice of America 06.09.2016. Referred 06.07.2019. <https://learningenglish.voanews.com/a/higher-priced-goods-popular-with-vietnams-middle-class/3496221.html>
- Brace, I. 2008. *Questionnaire design: How to plan, structure and write survey material for effective market research*. London. Kogan Page Limited
- Cooper, C. L. 2014. *PEST Analysis*. In: *Wiley Encyclopedia Management*. Referred 25.01.2019. https://www.researchgate.net/publication/257303449_PEST_analysis
- Das, K. 2018. *Labour Market Trends in Vietnam*. Vietnam Briefing 29.06.2018. Referred 03.07.2019. <https://www.vietnam-briefing.com/news/labor-market-trends-vietnam.html/>
- Das, K. 2018. *Vietnam: HCM City Leads the Average Salary Rankings*. Vietnam Briefing 12.03.2018 Referred 01.07.2019. <https://www.vietnam-briefing.com/news/vietnam-hcm-city-leads-the-average-salary-rankings.html/>
- Document of The World Bank Group. 2017. *Country Partnership Framework for The Socialist Republic of Vietnam for the period FY18-FY22*. Referred 19.07.2019. <http://documents.worldbank.org/curated/en/173771496368868576/pdf/111771-PUBLIC-Vietnam-FY18-22-CPF-FINAL.pdf>
- Freeman, M., W & Junge, C., E. 2005. *Havard Medical School Guide to Lowering Your Cholesterol*. Massachusetts: McGraw-Hill Education. Referred 20.01.2019.
- How technology is changing lives in Vietnam*. Viet Nam News 14.10.2018. Referred 09.07.2019. <https://vietnamnews.vn/life-style/>
- Hoy, W. K., Adams, C. M. 2016. *Quantitative Research in Education: A Primer*. The United States of America. SAGE Publications, Inc.
- Le, P. 2014. *Vietnam promotes scientific and technological development*. Voice of Vietnam 03.11.2014. Referred 15.07.2019. <https://vovworld.vn/en-US/current-affairs/vietnam-promotes-scientific-and-technological-development-283395.vov>
- Mah, K. 2018. *An Introduction to Vietnam's Import and Export Industries*. Vietnam Briefing 19.11.2018. Referred 04.07.2019. <https://www.vietnam-briefing.com/news/introduction-vietnams-export-import-industries.html/>

Mai, N. 2018. Brokerage sees higher interest rates in Vietnam in 2019. Hanoi Times 16.09.2018. Referred 03.07.2019. <http://hanoitimes.vn/brokerage-sees-higher-interest-rates-in-vietnam-in-2019-3103.html>

Mai, N. 2018. Vietnam consumer spending rises 11.5% in Jan-Aug. Hanoi Times 01.09.2018. Referred 04.07.2019. <http://hanoitimes.vn/vietnam-consumer-spending-rises-115-in-jan-aug-45914.html>

Martirosyan, D.M. & Singh, J. 2015. Functional Food in Health and Disease. A new definition of functional food by FFC: what makes a new definition unique? Volume 5, 209-223. Referred: 19.01.2019. <https://www.functionalfoodscenter.net/files/>

National Strategy on Science and Technology Development encounters hindrances. Viet Nam Net International 29.01.2018. Referred 09.07.2019. <https://english.vietnamnet.vn/fms/science-it/>

Nguyen, N. 2013. Tốn nhiều tiền nhập khẩu nguyên liệu thực phẩm chức năng. Vietnam Quality 29.09.2013. Referred 15.07.2019. <http://vietq.vn/dien-mao-moi-ve-chat-luong-cua-thi-truong-thuc-pham-chuc-nang-d22639.html>

Oats Opportunities in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership Countries and China. 2018. Referred 13.12.2019. <https://poga.ca/images/pdf/research/>

Perera, R. 2017. The PESTEL Analysis. Nerdynaut Publisher. Referred 15.07.2019

Poor diet, lifestyle fuel health problems. Viet Nam News 06.01.2016. Referred 09.07.2019. <https://vietnamnews.vn/society/>

Saunders, M., Lewis, P., Thornhill, A. 2015. Research methods for business students. Pearson Education

Siro, I., Kapolna, E., Kapolna, B., Lugasi, A. 2008. Appetite. Functional Food. Product development, marketing and consumer acceptance – A review. *Appetite* 51, 456-467. Referred: 19.01.2019. <https://www.sciencedirect.com/science/>

Taylor, W., Nguyen, H., Pham, T., Huynh, T. 2012. Civil Society in Vietnam: A Comparative Study of Civil Society Organizations in Hanoi and Ho Chi Minh City. The Asia Foundation. Referred 06.07.2019. <https://asiafoundation.org/resources/pdfs/CivilSocietyReportFINALweb.pdf>

The Future of ASEAN: Vietnam Perspective. 2018. Vietnam. PWC Publication. Referred 05.07.2019. <https://www.pwc.com/vn/en/publications/2018/>

Truong, L. 2018. Difficult question for VN Central Bank: Curbing interest, inflation rate. Vietnam Insider 09.08.2018. Referred 03.07.2019. <https://vietnaminsider.vn/difficult-question-for-vn-central-bank-curbing-interest-inflation-rate/>

Vietnam middle class booms. Viet Nam Net International 04.06.2018. Referred 06.07.2019. <https://english.vietnamnet.vn/>

Vietnam Nutraceuticals Market Outlook 2022. Vietnam Insider 05.11.2018. Referred 05.09.2019. <https://vietnaminsider.vn/vietnam-nutraceuticals-market-outlook-to-2022/>

Vietnam's unemployment rate rises to 2.3 pct in Q2. Vietnam Express International 19.08.2016. Referred 03.07.2019. <https://e.vnexpress.net/news/business/>

VNA. 2018. Employees in HCM City have highest average salary. The Voice of Vietnam Online 03.07.2018. Referred 01.07.2019. <https://m-english.vov.vn/society/employees-in-hcm-city-have-highest-average-salary-369946.vov>

Vu, H. 2018. APFI Food Safety Regulations Series: Vietnam. In: Asia Pacific Food Industry (APFI) Online. Referred 15.07.2019. <https://www.tilleke.com/resources/apfi-food-safety-regulations-series-vietnam>

Website of Euromonitor International. Referred 03.06.2020. <https://www.euromonitor.com/vitamins-in-vietnam/report>

Website of Lays Vietnam. Referred 13.12.2019. <https://www.laysvietnam.com/san-pham/quaker/>

Website of the American Chamber of Commerce in Vietnam. Referred 06.07.2019. <https://www.amchamvietnam.com/the-emerging-middle-class-in-developing-countries/>

Website of the ASEAN Alliance of Health Supplement Associations. Referred 05.09.2019. <http://www.aahsa.org.sg/asean-markets/>

Website of the Asia Society. Referred 02.07.2019. <https://asiasociety.org/blog/asia/addressing-vietnams-struggle-youth-unemployment>

Website of the Centers for Disease Control and Prevention. Referred 20.01.2019. https://www.cdc.gov/dhds/dsp/data_statistics/

Website of the Embassy of The Socialist Republic of Vietnam in the United States of America. Referred 16.07.2019. <http://vietnamembassy-usa.org/vietnam/geography>

Website of the European Commission. Referred 01.07.2019. <https://ec.europa.eu/trade/policy/countries-and-regions/countries/vietnam/>

Website of the Global Security. Referred 16.07.2019. <https://www.globalsecurity.org/military/world/vietnam/enviro.htm>

Website of the Government of the United Kingdom. Referred 01.07.2019. <https://www.gov.uk/government/publications/overseas-business-risk-vietnam/overseas-business-risk-vietnam>

Website of the Health Line Media. Referred 13.12.2019. <https://www.healthline.com/nutrition/9-benefits-oats-oatmeal>

Website of the Inside Vietnam Travel. Referred 01,07.2019. <https://www.insidevietnamtravel.com/travel-guide/vietnam-international-relationships.html>

Website of the International Trade Administration. Referred 09.07.2019.
<https://www.export.gov/welcome>

Website of The Observatory of Economic Complexity. Referred 04.07.2019.
<https://oec.world/en/profile/country/vnm/>

Website of the Oxford Business Group. Referred 02.07.2019. <https://oxfordbusinessgroup.com/overview/bucking-trend-foreign-direct-investment-and-trade-continue-climb>

Website of the Research Methodology. Referred 03.11.2019. <https://research-methodology.net/research-methodology/research-approach/>

Website of the Statista. Referred 13.12.2019. <https://www.statista.com/outlook/40090100/127/breakfast-cereals/vietnam#market-arpu>

Website of the Trading Economics. Referred. 02.07.2019. <https://tradingeconomics.com/vietnam/gdp-growth>

Website of the Vietnam Institute of Dietary Supplement. Referred 05.09.2019.
<http://www.vids.vn/tin-tuc/tin-chuyen-nganh/thi-truong-thuc-pham-chuc-nang-tai-viet-nam-1>

Website of the World Bank. Referred 06.07.2019.
<https://www.worldbank.org/en/country/vietnam/overview#1>

Website of the World Health Organization. Referred 09.07.2019.
<https://www.who.int/>

Website of World Health Organization. Referred 20.01.2019. <https://www.who.int/>

Wilson, A. 2008. Cholesterol and Coronary Heart Disease – The Facts. In: Health Hubs Online. Referred 20.01.2019. <http://healthhubs.net/heartdisease/cholesterol-and-coronary-heart-disease-the-facts/>

QUESTIONNAIRE (questions #6, #10 and #13 were optional)

Q1. Your gender *

- Female
- Male
- Other

Q2. Your age range *

- 18-24
- 25-34
- 35-55
- 56 or older

Q3. Your occupation *

- Student
- Employee
- Retired
- Other

Q4. Your average income per month *

- <100€ per month
- 100€ - 500€ per month
- 500€ - 1000€ per month
- >1000€ per month

Q5. Have you ever tried/used functional food? *

- 1. Yes, several times
- 2. Yes, once or twice
- 3. No, I've not tried yet

Q6. Name a type(s) of functional food product you have been using?

Q7. Functional food products are good for health. *

- 1. Completely agree
- 2. Somewhat agree
- 3. Neither agree nor disagree
- 4. Somewhat disagree
- 5. Completely disagree

Q8. Functional food products are easy to find at grocery's store/supermarket. *

- 1. Completely agree
- 2. Somewhat agree
- 3. Neither agree nor disagree
- 4. Somewhat disagree
- 5. Completely disagree

Q9. I'm willing to spend part of my earning for functional food products each month. *

- 1. Completely agree
- 2. Somewhat agree
- 3. Neither agree nor disagree
- 4. Somewhat disagree
- 5. Completely disagree

Q10. Do you agree or disagree with the following statements? Using the scale from 1- Completely agree to 5- Completely disagree

	1	2	3	4	5
Functional food are expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm skeptical of the manufacturers and their ads of added health benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer natural food with the same health beneficial components	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Functional food does not taste good sometimes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confused about the positive and negative information about functional food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not know enough about the claimed health aspects of functional food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are too many categories to choose from for desired health benefit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11. How interested would you be to try some functional food products in the future? *

- 1. Very interested
- 2. Somewhat interested
- 3. Not very interested
- 4. Not at all interested

Q12. Have you ever tried/used oat products? *

- 1. Yes, several times
- 2. Yes, once or twice
- 3. No, I've never tried yet

Q13. Name a type(s) of oat product you have been using?

Q14. Oat products are good for health and lower cholesterol. *

- 1. Completely agree
- 2. Somewhat agree
- 3. Neither agree nor disagree
- 4. Somewhat disagree
- 5. Completely disagree

Q15. How interested would you be to try some oat products in the future? *

- 1. Very interested
- 2. Somewhat interested
- 3. Not very interested
- 4. Not at all interested