



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Vietnam – Sweden bilateral trade relations and the driving forces behind them

Department of Economics
Bachelor of Science in Economics
Supervisor

Amrish Patel

Acknowledgement

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"The journey of a thousand miles begins with one step."

Lao Tzu

Göteborg, Sweden, May 2014

Rose Nguyen & Jenny Ha Nguyen

Abstract

Trade liberalization and the Vietnamese Government's attempt to open up the market and integrate it with the global economy has had a great impact on the country's trade sector. The trades flow between Vietnam and other trading partners including Sweden continues to grow. In particular, Vietnam's export to Sweden has increased from nearly 230 to 900 million USD in a time span of three years from 2010-2013.¹ This has raised an interesting question considering the determinants, i.e. the factors behind this rapid growth. Using a number of internationally recognized theories aiming to explain international trade, we have analyzed the trade of recent years between Sweden and Vietnam and identified a number of governing key factors behind it. In Vietnam, an abundance of natural resources and a substantial yet low cost labor force, together with the country's accession to the WTO, significant market expansion and a high amount of Foreign Direct Investments leading to, among other things, technological innovation, have all been key in determining the country's trade with Sweden. In Sweden, the key determinants have been an abundance in capital, both human and physical.

However we believe the later factors do have a greater impact on Vietnam-Sweden trade relation and suggest that the Vietnamese Government should take this into consideration while pursuing and implementing its trade policy towards Sweden.

Keywords: International Trade, Vietnam-Sweden relation, Cross-border trade, Comparative Advantage, Trade determinants, Heckscher – Ohlin model (factor proportion theory), David Ricardo theory, Product life cycle theory

¹ General Statistics Office of Vietnam, *Import-Export Turnover*, 2010-2013, viewed on 3 April 2014, <http://www.gso.gov.vn/default_en.aspx?tabid=626>

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Abbreviations and Definitions

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations

ASEM	The Asia-Europe Meeting
EU	European Union
GDP	Gross domestic product
GPA	Agreement of Government Procurement, a legally binding agreement in the WTO focusing on the subject of government procurement
GSOV	General Statistics Office of Vietnam
H-O model	Heckscher-Ohlin model
MARD	Ministry of Agriculture and Rural Development
MNE	Multinational Enterprise
MOST	Ministry of Science and Technology
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
R&D	Research and Development
RCA	Revealed comparative advantage (measures a country's comparative advantages vis-à-vis another country or region or the rest of the world)
SIDA	Swedish International Development Cooperation Agency
WTO	World Trade Organization

1. INTRODUCTION

This chapter introduces the background as well as the purpose of our study. Furthermore, we discuss the limitations and how the study is structured.

Vietnam's economic reform (*Doi Moi*) in 1986 has brought the country's economy to a new level. The reform's overall objective was to shift the Vietnamese economy from a centrally planned to a socialist-oriented market economy. Since the *Doi Moi* reform, the Vietnamese Government has pursued a policy that is characterized by market openness and liberalization of trade. A clear effect has been a boost in the country's economy and an expansion of foreign trade in the last two decades. Vietnam's exports have increased more than 11 times between 1995 and 2008, with an annual growth rate of 20.7%. This expansion has occurred most obviously in the export sector; particularly in labor-intensive and natural resource based exports such as crude oil and agriculture products. Vietnam's WTO accession is a further step towards the integration with the global economy, which has resulted in faster growth, this time for exports of garment and textiles as export quotas imposed on these products have been removed.² Furthermore, a strong and consistent multilateral trade relation between Vietnam and the European Union, including Sweden, has been established and developed. Sweden was the first Western country establishing diplomatic relations with Vietnam in 1969. After the establishment, a bilateral relation between the two countries took shape and has continuously grown. The evidence are various and can be attributed to many areas on both economic and social level, most remarkably is the development in trade and investment relations. The total amount of Official Development Assistance (ODA) from Sweden to Vietnam up to 2007 amounts to over 3 billion USD and trade flow in 2013 to over 1 billion USD.³ The dramatic rise in trade between Vietnam and Sweden over the period 2007 – 2013 does obviously have a positive effect on Vietnam's economy and might rely on different factors and driving forces. But what are the most substantial ones and what should the Vietnamese Government, authorities as well as businesses accomplish to develop and strengthen this relationship even more in the coming years?

1.1. Statement of purpose

The aim of this paper is to analyze the driving forces behind the trade growth between Vietnam and Sweden. By using different theories in International Trade, such as the David Ricardo theory, the Heckscher – Ohlin theory (factor proportion theory), and the product life cycle theory, the focus is put on explaining the driving forces but also on giving an overview of Vietnam – Sweden trade patterns in a historical and economic context. Vietnam's trade profile, economic advantages regarding labor force, accession to natural resources, technological innovation and foreign investments will also be examined and discussed. Last but not least, an attempt to explain the impact of Vietnam's WTO accession on Vietnam-Sweden trade relation was made by looking at the tariff reduction in different industries that Vietnam had committed to in accordance with WTO-agreements. Based on our analysis and findings, we will extend the content of this study with relevant suggestions on how the trade policy should be pursued by both the Vietnamese Government and other involved parts in the future for a more consistent relationship between the two countries.

² T.D. Nguyen, *Impact of East Asian Integration on Vietnam: ACGE Analysis*, Vietnam National University, Hanoi, viewed on 22 March 2014, <http://www2.gsid.nagoya-u.ac.jp/blog/anda/publications/files/2011/08/7-nguyen_tien_dunge38080.pdf>.

General Statistics Office of Vietnam, *Import-Export Turnover*, 2013

³ and Vietnamese Diplomatic Missions, *Overview of Vietnam-Sweden relations*, 2007, viewed on 22 March 2014, <http://www.vietnamembassy-brunei.org/vnemb.vn/cn_vakv/euro/nr040819111931/ns071211135922>

1.2. Research questions

- What are the driving forces behind the trade growth between Vietnam and Sweden?

1.3. Outline

This thesis is structured as follows:

Chapter 1 highlights the background and purpose of our study. Furthermore, the limitations and the structure of the thesis will be mentioned.

Chapter 2 describes the study approach and the research methodology used in the thesis. Besides it explains the data collection process as well as the choice of data sources.

Chapter 3 introduces the main theories applied in the study and a brief history of International Trade in an international context. To begin with, the chapter explains the Absolute Advantage theory by Adam Smith, the father of the Classical Trade Theory. But the most relevant theories to our case study are the Comparative Advantage theory by Ricardo, the Heck-Ohlin theory, and the Product Life Cycle theory. These theoretical models are used to form a conceptual framework of the cross-border trade relation between Sweden and Vietnam.

Chapter 4 focuses on studying the key factor that will help us to answer our research questions. The first section presents Vietnam's trade profile with a number of key features such as GDP, population and trade volumes. Later on, both countries' comparative advantages will be examined. Next section analyzes Vietnam's current situation in technology and its investment environment. The last section gives an overview of Vietnam-Sweden diplomatic relations as well as the bilateral trade relation between the two countries.

Chapter 5 introduces the analysis based on our findings in previous chapters. Vietnam-Sweden trade pattern is described to identify the milestones or important determinants that characterize the countries' trade relation. Subsequently, the trade theories will be brought into the picture to analyze whether these theories are consistent with the current trade relation between Vietnam and Sweden.

Chapter 6 is a summary and conclusion of our findings. Lastly, our suggestions on Vietnam's trade policy in the coming years and on future research will also be discussed in this chapter.

1.4. Delimitations

As it is not feasible within the scope of this study to include detailed analyses of two countries, we have chosen to focus primarily on Vietnam. As a developing country and considering its spectacular economic growth in recent years, we believe that Vietnam is a more interesting country to examine. Also, as we have mentioned, the rise in Vietnamese export to Sweden is considered to be much more significant than the import growth. Therefore, the analysis of Vietnamese export to Sweden will be more detailed. Unfortunately, this also means that the available data we have to work with come from many Vietnamese sources and may be less reliable. This will be discussed in greater detail in chapter 2 Methodology.

2. METHODOLOGY

This chapter describes the study approach and the methodology of research used in the thesis. Besides it explains the data collection process as well as why we used the data sources below.

2.1. Theories in International Trade

In this paper, a number of international trade theories, mainly David Ricardo's theory with focus on comparative advantage, the Heckscher – Ohlin model (H-O model or factor proportion theory) and the product life cycle theory have been used. We choose these theories because while collecting data on bilateral trade of Sweden and Vietnam we found that these trade theories are consistent with and would best help to explain the trade pattern between the two countries. Also, we find that the H-O model in many previous research, including Learner and Lundborg's, is evaluated as clear, insightful and do not conflict with fundamental facts or data.⁴ However, there are two important characteristics in Swedish trade that do not fit well within the classic theories of comparative advantages. Firstly, the major proportion of Swedish trade (80 % of exports in 1985) occurred with other developed market economies. This breaks the assumption of the theories of comparative advantage according to which the largest trade flows should occur between two countries that differ with respect to resource endowments. Secondly, a large and increasing part of Swedish trade consists of an exchange of the same products with the trading countries.⁵ Therefore, the product life cycle theory was used in order to fill the gap and to better explain Vietnam-Sweden trade relation.

2.2. Data Collection

All data used in this thesis is retrieved from internationally recognized sources, such as the websites of The World Bank, The World Factbook, the General Statistics Office of Vietnam, Vietnamese Diplomatic Missions, the British Council, etc (see References), and other's working papers from different universities and institutes.

The statistics on trade were collected from trading and statistics offices, mainly from the General Statistics Office of Vietnam, the data reliability of which will be discussed in chapter

⁴ Edward E. Learner & P.Lundborg, "A Heckscher-Ohlin View of Sweden Competing in the Global" in *National Bureau of Economic Research*, University of Chicago, 1997, p.3, viewed 11 April 2014, <http://www.nber.org/chapters/c6528.pdf?new_window=1>

L. Lundberg, "The structure of Swedish International Trade and specialization: "old" and "new" explanations, *The Industrial Institute of Economic and Social Research*,

⁵No.250, 1989, p.17, view 11 April 2014,

<[10](http://www.ifn.se/eng/publications/wp/19761990_1/~BinaryLoader.axd?OwnerID=3a3df5e5-6f00-4323-870f-2f4a7dc7d2c1&OwnerType=0&PropertyName=File1&FileName=Wp250.pdf&Attachment=True.></p></div><div data-bbox=)

2.4 Source Criticism. For a complete picture of the current trade situation between Vietnam and Sweden, we also had a short email interview with Peter Cederholm, Market Unit Manager on The Swedish Trade & Invest Council, during which we asked for his opinions regarding the dramatic rise in Vietnam’s export of mobile phones to Sweden in the past 3 years.

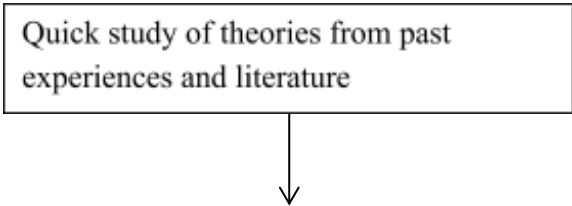
2.3. Research design

A qualitative research methodology was chosen because it was felt that such an approach would provide the best foundation for reaching our aim, an analysis of Sweden-Vietnam trade relations. The choice of research method presupposes that quantitative research is exploratory and more varied compared to quantitative research.

The author of a qualitative project will describe a research problem that can be best understood by an exploring approach, in which different terms for theories such as patterns, theoretical lens, or naturalistic generalizations are used. The author uses a theoretical lens as a broad explanation for behavior and attitudes, which may be complete with variables, constructs, and hypotheses. Distinct from the above mentioned theoretical orientation, a qualitative study can be conducted through an inductive process, in which the author or researcher starts by gathering information, and the theory or some other broad explanation becomes the end point.⁶

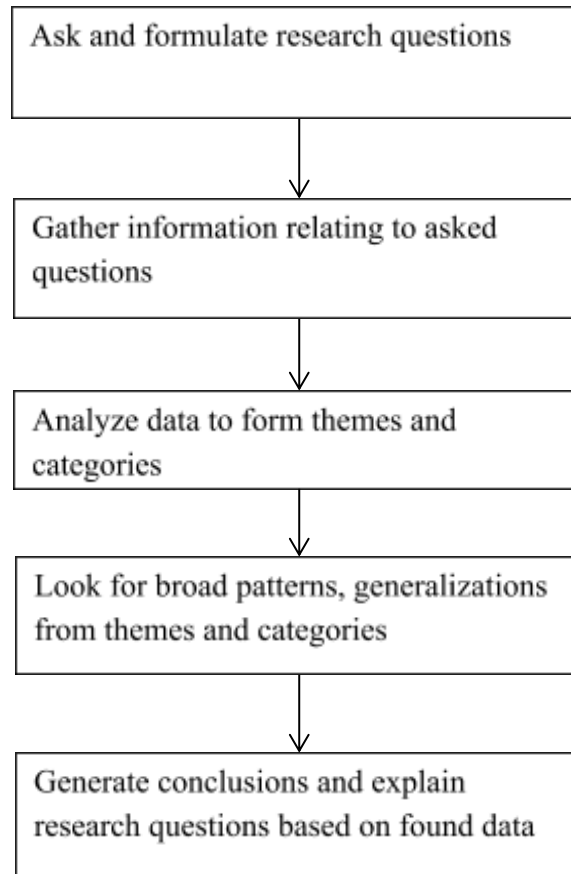
Since different theories in International Trade will be adopted we think that a qualitative research approach is more preferable and consistent with the purpose of our research. Figure 2.1 gives an overview of the research approach and process for this thesis:

Figure 2.1 Research approach and process⁷



⁶ John W. Creswell, *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, California, 2009.

⁷ Creswell, John W., 2009, modified by Authors



2.4. Source criticism

A large part of data and facts about Vietnam has been retrieved from the General Statistics Office of Vietnam (GSOV) that according to many sources has been criticized for exaggerating statistics relating to e.g. import and export volumes. As a result of this, whenever possible we try to verify this data with corresponding data retrieved from other more reliable sources such as The World Bank or The World Factbook, but even then the data may still not be completely reliable as the data reported by these authorities often originate from the GSOV. We judge, however, that even if the data may not always be completely accurate, any such inaccuracies will still be within the margin of error of our research and will not significantly alter the results and findings of this study.

On the other hand, the theoretical framework is written based on literature on International Trade for the sake of credibility. In addition, a number of electronic materials are used since the Product life cycle theory is not yet a well-researched subject and the literature within this field is still limited. In order to maximize the reliability of our thesis, we think that a comparison between the sources is highly necessary. Therefore, this procedure is conducted throughout the thesis and we find no considerable differences.

3. THEORETICAL FRAMEWORK

This chapter introduces the main theories applied in the study and a brief history of International Trade in the world context. To begin with, the chapter explains the Absolute Advantage theory from Adam Smith; the father of the Classical Trade Theory. But the most relevant theories we focus in our case study is Comparative Advantage by Ricardo, Heck-Ohlin theory and the Product Life Cycle. These theoretical models are used to form a conceptual framework of the cross-border trade relation between Sweden and Vietnam in globalization.

3.1. International Trade in Globalization

“The emergence of China, India, and the former communist-bloc countries implies that the greater part of the earth’s population is now engaged, at least potentially, in the global economy. There are no historical antecedents for this development”

Ben Bernanke, chairman of the U.S. Federal Reserve, 2006

Vietnamese wear clothes made in China, use Iphones assembled in USA, manufactured in China and import machineries & equipment from Sweden. Americans drive cars made in Germany and wear clothes made in China. Swedes eat hamburgers from American McDonald’s, import clothes from Vietnam and buy Korean mobile phones. The world economy has never before been integrated to the extent it is now⁸.

Figure 3.1 The Silkroad project



⁸ Brown Consultancy Service, *Theory of International Trade*, Brown Consultant, 2014, viewed 21 May 2014, <<http://www.brownconsultancy.com/ds-theory-international-trade.aspx>>

The map above shows historical examples of International Trade that took place a thousand years ago. It includes a series of land and sea trade routes from Japan to the Mediterranean from the first millennium B.C.E. through the middle of the second millennium C.E.⁹.

International Trade is naturally part of our daily lives even without us noticing it. Almost every time you buy or sell goods and services, you partake in the global economy. Import refers to goods a country has bought from another country, and an export is a product sold from one country to another. Thus, any product involved in international trade can be referred to as both import and export at the same time, depending if we look at it from the buying or selling country's point of view. Import and export are two terms mainly used in International Trade between two companies, the governments and individuals. The term International Trade refers to a system where two countries exchange goods and services across borders. Countries trade with each other to gain benefits from each other by obtaining things of better quality, things that are cheaper or things that are simply unique¹⁰.

What are the benefits of international trade?

To be able to increase the wealth of a country and to be more successful, different countries compete with each other by maximizing the use of their natural resources, i.e. land, labor, capital and entrepreneurship. Countries differ in terms of the quantity, quality and cost of these resources. In order to balance these differences, they trade with other countries to gain different advantages from other countries. The advantages that a country has vary according to the factors below:

- Abundant mineral
- Agriculture and climate change
- Skilled labor force
- Innovation
- Infrastructures like railways, bus systems, etc.

By exchanging goods and services with other countries, both the two countries directly involved and the world at large will profit and benefit together¹¹.

3.2. Classical Trade Theory (Absolute Advantage)

The English economist Adam Smith is considered the father of Classical Trade Theory and the creator of the *absolute advantage theory* in foreign trade activities. In his book "The Wealth of Nation" published in 1776¹², he argued that trade is not a zero-sum game. The countries should specialize in exporting the goods that they have absolute advantage and both countries will gain from international trade in the end. To illustrate what Smith suggested, let us take a look at the model below:

Assumption 1: There are only 2 countries and 2 commodities.

Assumption 2: The two countries use the same production technology.

⁹ The Silkroad project, *The Silkroad and related trade routes*, 2014, viewed 21 May 2014, <
<http://www.silkroadproject.org/tabid/177/default.aspx> >

¹⁰ Robert C. Feenstra, Alan M. Taylor, *International Trade*, 7th ed, Worth Publishers, New York, 2008, p.3.

¹¹ Brown Consultancy Service, *Theory of International Trade*.

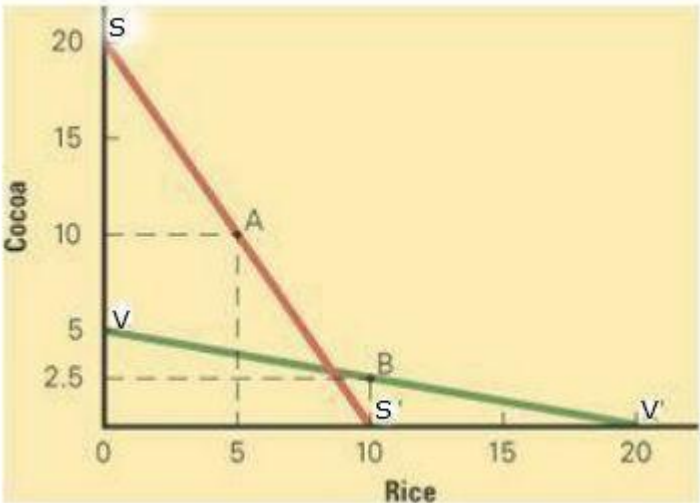
¹² A. Smith, *The Wealth of Nation*, London, 1776, cited in Charles W. L. Hill, *International Business*, New York, 2011, p. 163.

Assumption 3: The required resources are labor, land and capital in each country.
 Assumption 4: Cost of production is labor.
 Assumption 5: No trade barriers.

Let us suppose that Vietnam and Sweden have the ability to produce rice and cocoa according to the description below:

Vietnam has advantages in producing rice and Sweden has the advantage in producing cocoa. 10 resources are needed to produce one tonne of cocoa and 20 resources to produce one tonne of rice. Sweden can produce 20 tonnes of rice and no cocoa, 10 tonnes of cocoa and no rice or a combination between these two. 40 resources are required to produce one tonne of cocoa and 10 resources to produce one tonne of rice. However, Vietnam can produce 5 tonnes of cocoa and no rice, 20 tonnes of rice and no cocoa, or a combination between these commodities. Figure 3.2. illustrates the different combinations available to Sweden and Vietnam. We can see that Vietnam is better in rice production, whereas Sweden is better in cocoa production.

Figure 3.2 The theory of Absolute Advantage¹³



If no trade occurs between countries, then each country will need to allocate half of its resources to the production of rice and half to the production of cocoa (point A in figure 3.2.), which means that the Swedish production is 10 tonnes of cocoa and 5 tonnes of rice, and the Vietnamese production is 10 tonnes of rice and 2.5 tonnes of cocoa. In total that will yield 12.5 tonnes of cocoa and 15 tonnes of rice. If these two countries focus on producing what they are good at and then establishing trade with each other (table 3.1.) the total production of rice and cocoa will be 20 tonnes each. Both countries will benefit from international trade after exchanging 6 tonnes of each goods¹⁴.

Table 3.1 Absolute Advantage and the Gains from Trade¹⁵

¹³ Charles W. L. Hill, International Business, New York, 2011, p. 164, modified by authors.
¹⁴ ibid
¹⁵ Charles W. L. Hill, International Business, New York, 2011, p. 165, modified by authors.

Resources Required to Produce 1 Ton of Cocoa and Rice		
	Cocoa	Rice
Sweden	10	20
Vietnam	40	10
Production and Consumption without Trade		
	Cocoa	Rice
Sweden	10.0	5.0
Vietnam	2.5	10.0
Total production	12.5	15.0
Production with Specialization		
	Cocoa	Rice
Sweden	20.0	0.0
Vietnam	0.0	20.0
Total production	20.0	20.0
Consumption After Sweden Trades 6 Tons of Cocoa for 6 Tons of Vietnamese Rice		
	Cocoa	Rice
Sweden	14.0	6.0
Vietnam	6.0	14.0
Increase in Consumption as a Result of Specialization and Trade		
	Cocoa	Rice
Sweden	4.0	1.0
Vietnam	3.5	4.0

In summary, the absolute advantage theory shows that each country should focus on producing the products of which they have absolute advantage and exchange with other countries. This cooperation will bring the benefits to all countries. Free trade will make the world using natural resources more efficiently. Adam Smith advocated also a free trade platform, without government intervention. However, this Absolute Advantage theory cannot explain why countries which do not have absolute advantage still benefit from international trade¹⁶.

3.3. Classical Trade Theory- the Ricardian Model (Comparative Advantage)

David Ricardo, another English economist, published the answer to that question by his principle of comparative advantage theory which states that “A nation, like a person, gains from trade by exporting the goods or services in which it has its greatest comparative advantage in productivity and importing those in which it has the least comparative advantage”¹⁷. David Ricardo expanded upon Adam Smith's theory by discovering what happens when a country has an absolute advantage in all commodity production. Smith, together with his absolute advantage theory, claims that a country will not gain any profit

¹⁶ Ibid.

¹⁷ Application of strategic management, *Theory of Absolute Advantage*, 2014, viewed 21 May 2014, <<http://applications-of-strategic-management.24xls.com/en110>>

from cooperation with other countries. But in his book “Principles of Political Economy” in 1817, Ricardo demonstrated that such will not be the case. According to Ricardo's theory of comparative advantage, even if a country has advantage in producing all products, there is still an opportunity for trade. The law of comparative advantage is about the fact that a country can still win by investing all its resources into its most profitable industries even though other countries have absolute advantage in these industries¹⁸. This may sound illogical compared to Smith’s theory but the explanation for this argument can be demonstrated by a simple example as followed.

We have two countries, Vietnam and Sweden. They have the same resources and produce both cloth and furniture.

Table 3.2 Comparative Advantage and the Gains from Trade (A)¹⁹

VIETNAM	SWEDEN
Without trade, produces 8 bales of cloth 4 pieces of furniture	Without trade, produces 4 bales of cloth 8 pieces of furniture
Time taken to produce 1 bale of cloth = 1 hour 1 piece of furniture = 2 hours	Time taken to produce 1 bale of cloth = 2 hours 1 piece of furniture = 1 hour
With trade 16 bales of cloth 0 bales of furniture	With trade 0 bales of cloth 16 pieces of furniture

Because Vietnam has a better advantage in cloth production, it focuses on maximizing its resources used in that industry so that it can produce 16 bales a day. For better profit, Vietnam will trade its cloth production surplus in exchange for furniture. Sweden focuses all of its resources into the production of furniture in order to produce 16 pieces of furniture and then trade the surplus for cloth. By doing this, the supply of commodities in both countries will increase, which in turn will reduce the prices and drive up the sale of goods in both countries.

Vietnam has a comparative advantage in cloth and Sweden has a comparative advantage in furniture, but in order to be able to maximize the nations’ wealth, both sides should focus on producing what they are good at.

Table 3.3 Comparative Advantage and the Gains from Trade (B)²⁰

¹⁸ Brown Consultancy Service, *Theory of International Trade*.
¹⁹ Ibid, *modified by authors*.
²⁰ Brown Consultancy Service, *Theory of International Trade, modified by authors*.

	VIETNAM	SWEDEN
Bales of cloth per day	10	2
Pieces of furniture per day	5	3

The theory about comparative advantage highlights that the production output of the world should be higher if anti-trade policies are not implemented (compared to the conditions of trade restrictions). Ricardo's theory advocates that all international consumers can afford more goods without trade barriers between countries. Even though a country does not have any absolute advantage in any commodity production, they can still win. Both absolute advantage theory and comparative advantage theory advocates that trade is a positive sum game in which all countries participating can benefit economically. Ricardo's theory has been used more than Smith's theory by those who favor free trade²¹.

3.4. Heckscher-Ohlin Model (Factor Proportion Theory)

Two Swedish economists, Eli Heckscher²² and Bertil Ohlin,²³ gave other explanations of comparative advantage by demonstrating that comparative advantage is a result of the differences in the endowments of production factors. Compared to Ricardo's theory, this new concept takes into account more resources such as land, labor and capital. The model is named Heckscher- Ohlin after the two professors who created it. The H-O model is a long run model because all factors are not fixed and they can move freely between the industries²⁴. The endowment of different factors in different countries explains the differences in factor prices; the more abundant a factor the cheaper the price is.

According to the H-O theory, all countries should export those products with many abundant factors and import the products with less abundant factors. The H-O theory is an attempt to further develop the International Trade theory, which in turn will lead to more accurate analyses and explanations of the patterns of International Trade. The similarity between the H-O model and Ricardo-s theory lies in their prediction that trade between different countries will benefit all involved parties.

Where these theories differ is in the H-O model's prediction that trade patterns are identified by the differences in factor endowments instead of the difference in labor production.

The H-O theory can be easily proven by fact. To explain the H-O model we suppose there are two countries; Home (Sweden) and Foreign (Vietnam), each of which produces two goods clothes and funiture, using two factors of production, labor and capital. Below are the assumptions of the H-O model:

Assumption 1: These factors can move freely between these countries.

²¹ Charles W. L. Hill, *International Business*, New York, 2011, p. 166.

²² Swedish economist who wrote his view about International Trade in 1919.

²³ Heckscher's student, who continued to develop these ideas in 1924.

²⁴ Robert C. Feenstra, Alan M. Taylor, *International Trade*, 7th ed, Worth Publishers, New York, 2008, p.89.

Assumption 2: Clothes production is labor-intensive; hence the need for more labor per unit of capital in clothes production as compared to what is required in furniture production.

Assumption 3: Home is labor-abundant, which means that the labor-capital ratio in Home is higher than Foreign which means Foreign is capital-abundant.

Assumption 4: The final products which are clothes and furniture can be traded freely between two markets but labor and capital can't be exchanged freely.

Assumption 5: Technology is the same in both countries.

Assumption 6: Consumers' tastes are also the same across borders.²⁵

The H-O model can also be shown by this example: Sweden, for a long time, has been a popular exporter of machines and equipments in the world, thanks to its revolutionary technological expertise. In the meanwhile, Vietnam has been a major producer in labor-intensive industries such as textiles and garments. Thanks to Vietnam's abundance of cheap labor, it has an advantage in producing labor-abundant goods. Thus, Sweden becomes a regular importer of these products from Vietnam.²⁶

4. EMPIRICAL WORK

This chapter focuses on studying the key factor that will help us to answer our research questions. The first section presents Vietnam's trade profile with a number of key features such as GDP, population and trade volumes. Later on, both countries' comparative advantages will be examined. Next section analyzes Vietnam's current situation in technology and its investment environment. The last section gives an overview of Vietnam-Sweden diplomatic relations as well as the bilateral trade relation between the two countries.

4.1. Vietnam's trade profile

This section presents an overview of Vietnam's foreign trade by sector and by trading partner. A larger part of the section consists of statistics and numerical data for the purpose of giving a quick and comprehensive understanding about Vietnam and the country's trading industry. Table 4.1 provides information about Vietnam and some economic key features such the population, GDP, trade policies, export as well as import sector. Vietnam's trade flows of commodities are presented and are broken down according to commodity group and main destination. Similarly, the service sector is broken down into services items.

²⁵ Robert C. Feenstra, Alan M. Taylor, *International Trade*, 7th ed, Worth Publishers, New York, 2008, p.89, modified by authors.

²⁶ This example is modified by authors based on the empirical work below.

Table 4.1 Vietnam's trade profile

Viet Nam				
BASIC INDICATORS				
Population (thousands, 2012)	88 776	Rank in world trade, 2012	<u>Exports</u>	<u>Imports</u>
GDP (million current US\$, 2012)	155 820	Merchandise	37	33
GDP (million current PPP US\$, 2012)	336 221	excluding intra-EU trade ²⁷	26	23
Current account balance (million US\$, 2012)	9 000	Commercial services	54	55
Trade per capita (US\$, 2010-2012)	2 364	excluding intra-EU trade	36	38
Trade to GDP ratio (2010-2012)	153,0			
		<i>Annual percentage change</i>		
	<i>2012</i>	<i>2005-2012</i>	<i>2011</i>	<i>2012</i>
Real GDP (2005=100)	152	6	6	5
Exports of goods and services (volume, 2005=100)	188	9	11	16
Imports of goods and services (volume, 2005=100)	187	9	4	9
TRADE POLICY				
WTO accession	11 Jan 2007	Contribution to WTO budget (% , 2014)	0,438	
	17, 19 Sept			
GPA accession	Observer			
ASEAN accession	28 July 1995			
APEC accession	Nov 1998			
ASEM accession	1996			
MECHANDISE TRADE				
	<i>Value</i>	<i>Annual percentage change</i>		
	<i>2012</i>	<i>2005-2012</i>	<i>2011</i>	<i>2012</i>
Merchandise exports, f.o.b. (million US\$)	114 529	20	34	18
Merchandise imports, c.i.f. (million US\$)	113 780	18	26	7
	<i>2012</i>			<i>2012</i>
Share in world total exports	0,62	Share in world total imports	0,61	
Breakdown in economy's total exports		Breakdown in economy's total imports		
By main commodity group (ITS)		By main commodity group (ITS)		
Agricultural products	21,9	Agricultural products	12,0	
Fuels and mining products	10,9	Fuels and mining products	15,4	
Manufactures	67,1	Manufactures	72,4	
By main destination		By main origin		
1. European Union	17,7	1. China	25,5	
2. United States	17,2	2. Korea, Republic of	13,7	
3. Japan	11,4	3. Japan	10,2	
4. China	11,2	4. European Union	7,7	
5. Korea, Republic of	4,9	5. Chinese Taipei	7,5	
COMMERCIAL SERVICES TRADE				
	<i>Value</i>	<i>Annual percentage change</i>		
	<i>2012</i>	<i>2005-2012</i>	<i>2011</i>	<i>2012</i>
Commercial services exports (million US\$)	9 510	12	17	11
Commercial services imports (million US\$)	12 353	16	20	6
	<i>2012</i>			<i>2012</i>
Share in world total exports	0,22	Share in world total imports	0,30	

²⁷ Intra-EU trade: Trade between the Member States of the European Union.

Breakdown in economy's total exports		Breakdown in economy's total imports	
By principal services item		By principal services item	
Transportation	21,8	Transportation	70,5
Travel	72,0	Travel	15,0
Other commercial services	6,2	Other commercial services	14,4

Source: World Trade Organization (modified by authors)

4.2. Vietnam's Comparative Advantages

Vietnam's comparative advantage vis-à-vis the rest of the world is largely based on the country's endowments of labor and natural resources. Le analyzed the pattern of Vietnam's Comparative Advantage by using the Balassa index²⁸ of revealed comparative advantage (RCA index) and found that in 1991 (the early stage of *Doi Moi* reform of 1986), Vietnam's comparative advantage was based mainly on primary products, including food, live animals, crude material (excluding fuel) and mineral fuel. In the same year, Vietnam had no comparative advantage in most of processed and manufactured commodities. These were beverage, tobacco, chemicals, basic manufactures, machines, transport equipment and miscellaneous manufactured goods. By 1996, this picture changed quite dramatically as miscellaneous goods were included in Vietnam's comparative advantage base. Over the period 1991-96, the country's comparative advantage patterns started to shift towards labour-intensive products such as clothes and footwear. Most of the country's comparative advantage products are also its major export items. The primary products among comparative advantage commodities decline over time while the number of manufactured products has steadily increased. This indicates that the comparative advantage structure has shifted from the primary sector to the manufactured sector, and further shifts towards more sophisticated manufacturing.²⁹

4.2.1. Vietnam, a labor-abundant country

In 2013, Vietnam ranked 11th in the world according to labor force with 59 % of the population in the labor force. According to GSOV numbers, 89 % of Vietnam's total population is under and at working age, offering the country an abundant source of labor force although the data points to an apparent shortage of highly-skilled labor.³⁰ Table 2.4 shows the percentage of Vietnam's labor force in different periods.

Table 4.2 Vietnam's labor force, 1995 – 2020

	1995	2000	2005	2008	2015	2020
Labour Force – Total	35.6	38.7	43.7	46.6	52.8	56

²⁸ See Abbreviations and Definitions

²⁹ Q.P. Le, "Evaluating Vietnam's changing Comparative Advantage Patterns", *ASEAN Economic Bulletin*, Vol. 27, No. 2, 2010, p.221-230, viewed 12 April 2014, <http://www.viet-studies.info/kinhte/VN_ComparativeAdv_ASEANBulletin.pdf>

³⁰ General Statistics Office of Vietnam, *Population and employment*, 2008, Viewed 14 April 2014, <http://www.gso.gov.vn/default_en.aspx?tabid=467&idmid=3>

Male	18.3	20	22.6	24.4	27.6	29.4
Female	17.3	18.7	21.1	22.4	25.2	26.6

Source: British Council

4.2.2. Vietnam is a natural resource – abundant country

Vietnam has various natural resources including forest, sea and mineral resources.

Forest

Vietnam's forests are valued for being highly diverse with rich fauna and flora. The forest area made up 45 % of the land area in 2013.³¹ Despite the expansion of the forest industry, the forest area has changed only slightly through the last decade according to The World Bank (40.1 % of land area in 2003 to 45 % in 2013).

Sea areas

Vietnam has a long coastline of 3260 km and more than 1 million km² of marine are, which provides Vietnam with abundant marine resources and biodiversity. More than 130 fish species are economically important and largely contribute to the fishery industry. A rich source of crustacean and mollusks offers the country an annual allowable catch of 50 to 70 thousand tons.³²

Mineral and energy resources

According to the geological survey, Vietnam has discovered 5000 deposits with over 60 different types of minerals, being one of the most important driving forces for Vietnam's economic development. One of its main energy categories is the medium-sized reserve that can still be exploited and which includes coal, iron, copper, zinc, gold, etc.³³

Vietnam has the second-highest level of oil reserves in East Asia exceeded only by China.³⁴

4.3. Sweden's Comparative Advantages

Based on previous studies, we describe the structure of Swedish comparative advantage in international trade in a historical context.³⁵

³¹ The World Bank, *Forest Area (% of land area)*, 2014, viewed 17 April 2014, <<http://data.worldbank.org/indicator/AG.LND.FRST.ZS?page=2>>

³² Water Environment Partnership in Asia (WEPA), *State of water environmental issues: Vietnam*, viewed 21 April 2014, <<http://www.wepa-db.net/policies/state/vietnam/overview.htm>>

³³ Q.B. Bui, T.H. Le, V.H. Tran, T.K. Tran, Q.T. Pham, & A.T. Dau, "The Extractive Industries Transparency Initiative and the Implementation Perspective of Vietnam", *Vietnam Chamber of Commerce and Industry and Consultancy on Development*, 2011, viewed 28 April 2014, <<http://eiti.org/files/Vietnam-scoping.pdf>>

³⁴ Bloomberg, *Vietnam Sees Oil Output in 340,000 Barrel Range for 'Few Years'*, November 2013, viewed 28 April 2014, <<http://www.bloomberg.com/news/2013-11-30/vietnam-sees-oil-output-in-340-000-barrel-range-for-few-years-.html>>

³⁵ This passage is based on Lundberg's findings and other's referred to in Lundberg, 1989

4.3.1. Before the 1960s - from natural resource intensive to capital intensive country

In the early stage of industrialization, the Swedish economy relied mainly on the country's natural resources such as forest land, iron ore and hydro-electric power. Swedish export in the 1870s and 1880s was dominated by timber, sawn wood, iron ore and agricultural products, accounting for 80% of export revenue.

During the period up to World War II, the Swedish export experienced a shift in export products. Timber and sawn wood were substituted for semi-processed goods such as pulp and later paper based on natural resources.

During the 1940s the structure of Swedish comparative advantage in manufacture products shifted from labor-intensive to capital-intensive products.

From 1959 to 1974, the Swedish exports absorbed more direct capital than the imports did and were capital-intensive.

4.3.2. After the 1960s – human and physical capital intensive nation

Many studies in the 1960s and 1970s suggested that Swedish engineering trade changed during this period from physical capital-intensive to skill and human capital intensive products. This is explained by an increasing and high level of Research and Development (R&D) expenditure in Sweden compared to competitors.

We believe that this picture has slightly changed since the 1960s for a developed and industrial country like Sweden. Swedish exports for the period 2001-2013 show that the major exports similarly still consist of natural resource and capital-intensive products (see Table 4.5)

Table 4.3 Sweden's exports by commodity groups SPIN³⁶ 2007, year 2001-2013

Commodity group	Total (Hundred Mn. SEK)
07.1 Iron ores	1142
10-12 food products, beverages and tobacco products	2461
16 Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	1312
16.1 Wood, sawn and planed	1352
17.11 Pulp	1512
18 Printing and recording services	1075
19 Coke and refined petroleum products	1866
20 Chemicals and chemical products	1762
21 basic pharmaceutical products and pharmaceutical preparations	2198
22 rubber and plastics products	1443

³⁶ Swedish Standard Classification of Product by Activity

23 other non-metallic mineral products	1515
24 basic metals	1384
25 fabricated metal products, except machinery and equipment	1471
28 machinery and equipment n.e.c.	1659
29.101 Passenger cars and other light motor vehicles	1502
29.102 Trucks and other heavy motor vehicles	1672
29-30 Motor vehicles, trailers and semi-trailers, other transport equipment	1471
30 Other transport equipment	1072
31-32 Furniture, other manufactured goods	1543

Source: Statistics Sweden

4.4. Technological Innovation in Vietnam

Vietnam's economic structure is gradually shifting from an agriculture economy to a more industry and service concentrated one. However, the activities in improving and developing technological innovation are still considered limited. Vietnam continues to rank low on scales of global competitiveness. Its overall competitiveness score in was the lowest of all countries in the region.

The World Economic Forum measures The Global Competitiveness Index in different countries by using a number of indicators including Innovation. In this context, innovation is technological innovation and is defined as “*an environment that is conducive to innovative activity, supported by both the public and the private sectors. In particular, this means sufficient investment in research and development especially by private, high-quality scientific research institutions, collaboration in research between universities and industry, and protection of intellectual property*”.³⁷ Vietnam's Innovation Score is weak and does not indicate any improvement in technology innovation during the period 2005 – 2014 (see Table 4.4).

Table 4.6 Vietnam Innovation Score

Period	Score (1 – 7)
2005 – 2006	3.1
2006 – 2007	3.1
2008 – 2009	3.3
2009 – 2010	3.5
2010 – 2011	3.4
2011 – 2012	3.2
2012 – 2013	3.1
2013 – 2014	3.1

Source: World Economic Forum, Global Competiveness Report, 2005 – 2014.³⁸

³⁷ X. Sala-I-Martin, J. Blanke, M.D. Hanouz, T. Geiger, I. Mia, & F.Paua, “The Global Competitiveness. Index: Measuring the Productive Potential of Nations”, *World Economic Forum*, Chapter 1.1, viewed 30 April, <<http://www.ctc-health.org.cn/file/20090219004.pdf>>

³⁸ No data for period 2007 – 2008 was found

According to the OECD, despite the government's attempts to improve the innovation framework, many shortcomings remain and a lot of work needs to be done. This includes, among other things, the adoption and application of knowledge and the ineffectiveness of innovation support institutions. The use of technology and innovation by the industry is low with a lack of requisite skills among the workforce. Collaboration between innovation actors is either non-existent or weak along with inadequateness in the national investment in R&D, innovation and higher education. Furthermore, the framework conditions for innovation in Vietnam, including technical infrastructure, equity market, management skills and law system are considered poor and insufficient.

One exception are the investments made by multinational enterprises, MNEs, in Vietnam. They use advanced technologies in areas such as Information Technology, oil and gas, and consumer electronic goods, machineries and equipment. The R&D work conducted in multinational enterprises (MNEs) located in Vietnam is largely based upon the parent firms' innovation policy. MNEs use technology determined by their parent companies for optimal efficiency in the context of Vietnam and tend to operate independently from domestic companies by not forming networks of production, supply and distribution with them.³⁹

4.5. Market expansion and FDI in Vietnam

Foreign Direct Investment (FDI) is one of the driving forces behind the spectacular growth in Vietnam's economy in recent years. The contribution of the foreign investment sector in Vietnam's GDP has increased gradually from 2 % of GDP in 1992 up to 18.97 % in 2011. We can see in Figure 4.1 below that the rise of FDI to Vietnam started to accelerate from 2006 and peaked in 2008. Many studies have shown that one of the reasons why Vietnam is attractive to foreign investors is the abundance in raw materials, and a cheap labor force. Currently, 58.4% of foreign investment capital has been concentrated in the industrial sector with higher technological level than the country level. Until now, the foreign investment sector accounts for 45 % of industrial production, contributing to the formation and development of the country's key industries such as telecommunication, mining and electronics and information technology, etc.⁴⁰

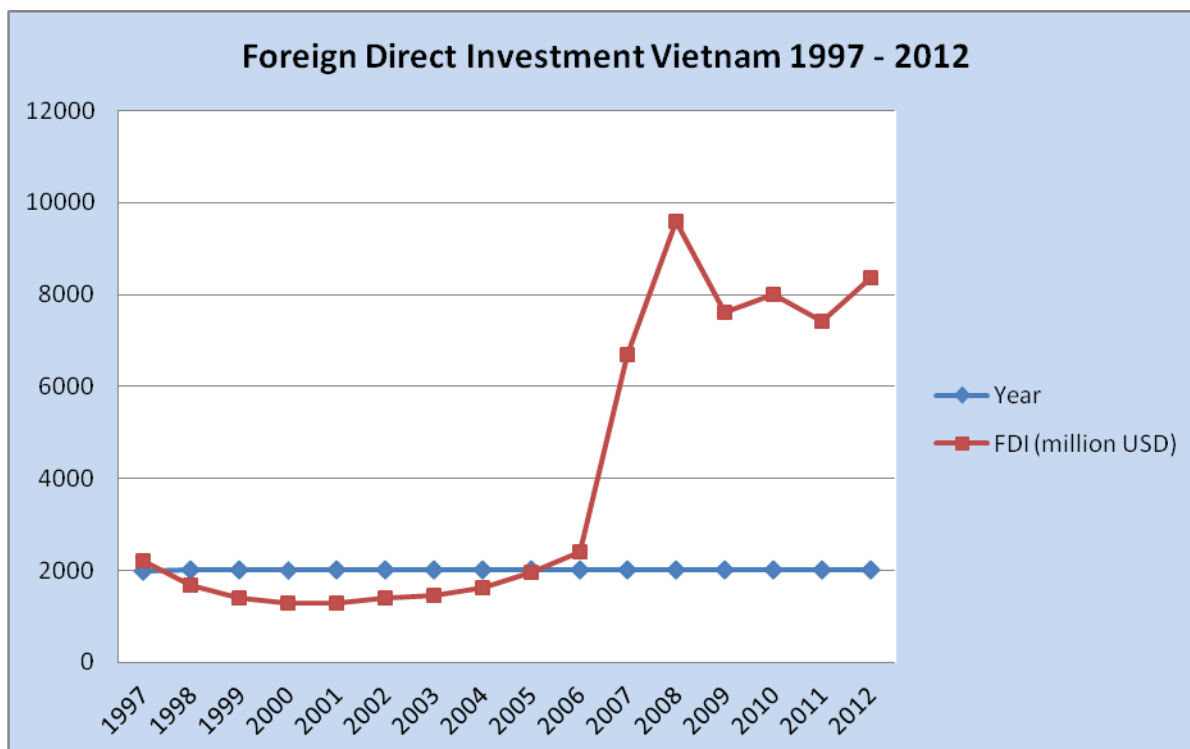
In the last few years, many international giants in telecom and electronics such as Intel, Samsung, Nokia, and Sony have been attracted by Vietnam's abundant labor force with a low wage cost and opened factories in Vietnam.⁴¹

Figure 4.1 Foreign Direct Investment Vietnam 1997 - 2012

³⁹ Organisation for Economic Co-operation and Development (OECD), *Review of Innovation in Southeast Asia*, April 2013, viewed 30 April 2014, <http://www.oecd-ilibrary.org/science-and-technology/innovation-in-southeast-asia-2012_9789264128712-en>

⁴⁰ D. L. Tran, *Foreign Direct Investment in Vietnam*, *Center for Vietnamese and Southeast Asian Studies, Vietnam National University*, viewed 1 May 2014, <http://www.bot.or.th/Thai/EconomicConditions/Thai/Northeast/seminarNE/DocLib_seminar56/Tran%20Dinh%20Lam--Foreign%20Direct%20Investment%20in%20Vietnam.pdf>

⁴¹ Interview with Peter Cederholm



Source: The World Bank

A part of this amount comes from Swedish contributions. According to the Embassy of Sweden in Hanoi, the accumulative amount of investments made by Sweden was above 65 million USD at the end of 2012. In 2013 there are 60 Swedish companies established in Vietnam, of which 20 are companies that provide machineries and equipment.⁴² The investments focus mainly on areas such as telecommunication, mobile phone and electric equipment. An example is Ericsson, one of the leaders in telecommunication globally, with a considerable market share accounting for 40 % of total telecom infrastructure equipment in Vietnam. Operating in Vietnam since 1991, Ericsson has grown and become one of the most successful telecom companies on the Vietnamese market.⁴³ Other major Swedish enterprises that have been operating effectively in Vietnam include large and multinational companies such as Electrolux, Alfa-Laval, Tetra Pak, Atlas Copco, Hennes & Mauritz, Ikea, etc.

4.6. Vietnam's accession to WTO

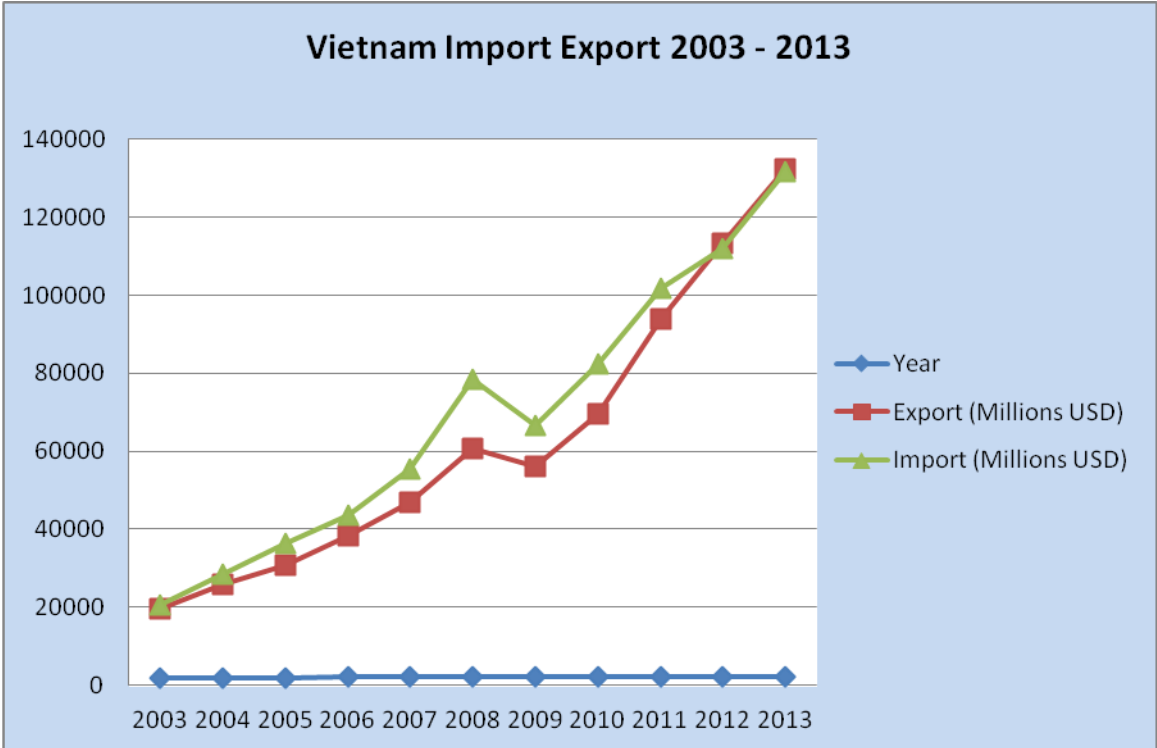
The Vietnamese trade liberalization and the resulting accession to the WTO has likely been instrumental to the emergence of the driving forces responsible for the growing trade between Sweden and Vietnam. Vietnam became a member in World Trade Organization on 11 January 2007. Since the WTO accession, Vietnam has witnessed a boost to its economy. After the country acceded the WTO, both the FDI and exports have risen rapidly. The export volume

⁴² List on Swedish and Swedish related companies in Vietnam is available on <http://www.swedenabroad.com/en-GB/Embassies/Hanoi/Business/Swedish-Companies/>

⁴³ M. Talha Atik, H. Tran, & C. Vieyra, "FDI in Developing Countries: A case of Ericsson in Mexico and Vietnam", *Linköping University*, 2008, p.11, viewed 2 May 2014, < <http://liu.diva-portal.org/smash/get/diva2:25307/FULLTEXT02>>

has doubled in the period 2007-2013 to 96.3 billion dollars.⁴⁴ This dramatic rise in both the import and the export sector can be seen in the graph below.

Figure 4.2 Vietnam Imports Exports 2003 – 2013



Source: General Statistics Office of Vietnam

In connection with the WTO membership, Vietnam undertook several commitments⁴⁵ relating to goods and services, such as committing to open its market and to abide by the rules of the WTO. Briefly, these commitments would take effect in the following industries:⁴⁶

Telecommunications: In the negotiations for Vietnam’s WTO membership, other WTO members required Vietnam to remove restrictions on foreign investments in the telecommunications sector. Also, Vietnam for the first time allowed joint ventures in the telecom sector.

Trade on electronics: Vietnam committed to reduce tariffs on imports of electronics and electronic equipment. Tariffs on computers and mobile phones were reduced to zero.

Trade on automobiles: In connection with the WTO accession, Vietnam agreed to reduce tariffs on automotive parts and equipment and automobiles including cars and trucks.

⁴⁴ Viet Nam News, *WTO membership boosts economy*, February 2012, viewed 2 May 2014, <<http://vietnamnews.vn/economy/221021/wto-membership-boosts-economy.html>>

⁴⁵ WTO Center VVC, *Vietnam’s WTO commitment summaries*, 2003, viewed 3 May 2014, <<http://wtocenter.vn/publications/vietnams-wto-commitment-summaries>>

⁴⁶ We focus merely on the sectors or industries which are relevant for Vietnam-Sweden trade relation

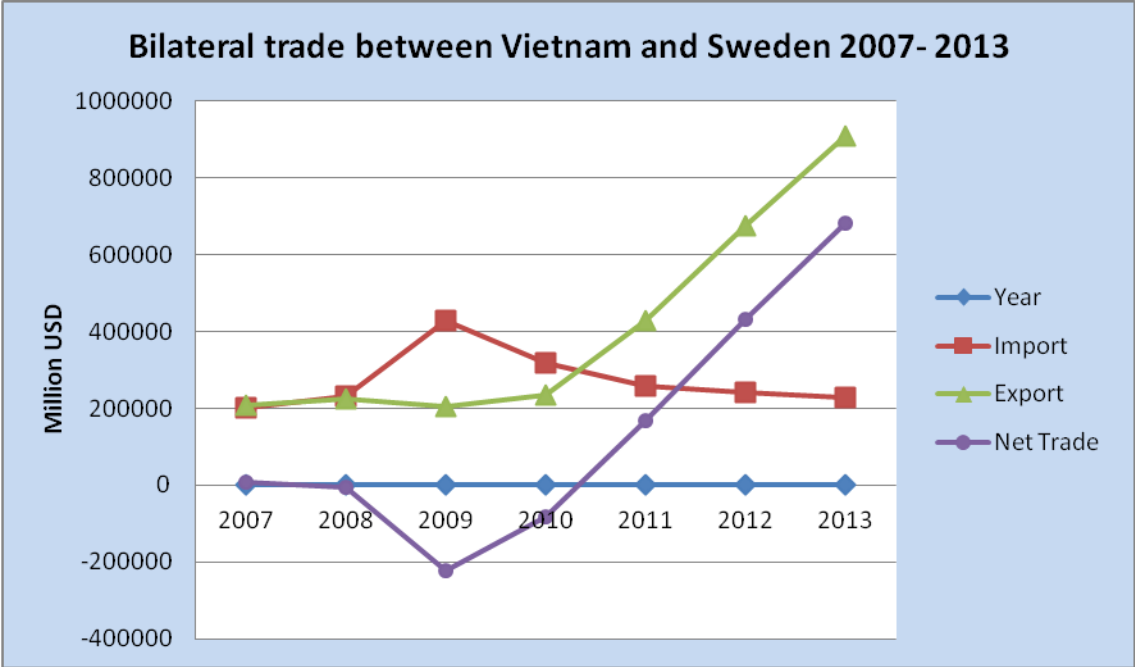
Trade in textiles and garments: Vietnam agreed to reduce tariffs on textile materials, clothes and garments. The quota on export of garments was also removed according to an agreement with the WTO.

4.7. Vietnam – Sweden bilateral trade

The last decade has witnessed a strong and consistent development in multilateral trade relation between Vietnam and European countries, including Sweden. Trade between Vietnam and Sweden has increased considerably over the years, mainly within the major industries such as mobile telephony, construction and manufacturing. Since 2001, the value of goods exchanged had doubled after 5 years, and more than tripled after 10 years. In 2012, Sweden ranked the 29th largest player on Vietnam’s export market and 35th on Vietnam’s import market.⁴⁷

Vietnamese exports to Sweden comprised 907 130 million USD in 2013, the highest export volume since 2007, while the Vietnamese import volume from Sweden was highest in 2009 with approximately 430 000 million USD (see Figure 4.3).

Figure 4.3 Vietnam – Sweden bilateral trade 2007 – 2013



Source: General Statistics Office of Vietnam⁴⁸

⁴⁷ Embassy of Vietnam in Sweden, *Vietnam – Sweden 2012 in focus*, 2013,p.12, viewed 4 May 2014, <http://www.vietnamemb.se/vi/images/vietnam_sweden_2012.pdf>

⁴⁸ General Statistics Office of Vietnam (GSOV), *Import – Export turnover, 2007 – 2013*, viewed 4 May 2014, <http://www.gso.gov.vn/default_en.aspx?tabid=626>

Table 4.7 and 4.8 provide information about Vietnam's major imports and exports to and from Sweden during the years 2007 – 2013.

Table 4.5 Vietnam Import from Sweden, 2007 – 2013

	2007	2008	2009	2010	2011	2012	2013
VN Import from SE (Mn. USD)	209.2	230.1	427.5	317.0	258.1	241.1	226.9
Cars	3.7	1.4	4.0	7.1	7.6	-	0.3
Precious metals & stones	-	-	0.1	4.5	-	-	-
Mobile phones & accessories	-	-	-	4.9	6.9	14.6	18.3
Cotton	0.5	-	-	-	-	-	-
Pulp	3.4	2.7	-	-	-	-	-
Chemical products	4.5	4.7	5.3	6.6	7.1	6.9	9.0
Plastic materials	2.9	1.5	2.2	2.7	3.6	2.8	2.7
Wood & wooden products	0.8	2.9	4.7	7.8	7.2	6.9	7.1
Paper of all kinds	0.6	1.1	-	4.1	7.5	5.5	5.7
Chemical materials	1.1	0.5	-	-	-	-	-
Other metals	0.5	0.3	-	-	-	-	-
Machineries & equipment	84.9	162.4	337.5	212.5	147.3	125.2	101.6
Computers, electronics & equipment	3.3	3.8	2.3	1.4	0.9	3.1	2.0
Pharmaceutical materials	0.7	0.6	16.5	-	-	-	-
Textile & footwear materials	0.5	1.1	-	-	-	-	-
Irons & steel	2.1	5.4	4.4	4.5	4.7	6.1	8.9
Pharmaceuticals	8.7	11.2	16.5	23.3	27.3	32.9	32.9
Textile materials	1.7	0.1	-	-	-	-	-
Automobile components, spare parts	-	-	3.4	7.5	2.7	1.8	0.8
Petroleum products	-	-	3.6	5.6	7.3	8.0	10.6
Plastic products	-	-	2.3	2.2	2.5	2.4	2.0
Steel products	-	-	2.9	3.5	7.9	6.0	4.0
Scrap iron steel	-	-	-	-	-	-	2.3

Source: General Statistics Office of Vietnam

Table 4.6 Vietnam Export to Sweden, 2007 – 2013

	2007	2008	2009	2010	2011	2012	2013
VN export to SE (Mn. USD)	202.4	224.9	204.6	233.2	427.3	673.7	907.1
Mobile phones & accessories	-	-	-	4.0	118.4	307.7	483.6
Toys	0.9	0.5	-	-	-	-	-
Coffee	2.9	3.0	-	-	-	-	-
Rubber	3.8	4.0	1.0	3.6	3.6	4.5	3.2
Wood & wooden products	18.8	25.0	18.4	23.0	22.2	26.6	23.6
Footwear	54.5	63.3	4.5	35.9	41.7	53.7	55.1
Garments & textiles	34.2	41.2	35.0	49.8	68.5	52.3	72.7
Machineries & equipment	-	-	-	11.0	19.6	36.6	32.8

⁴⁸ Accessing GSOV's website, we could only find data on imports and exports between Vietnam and Sweden for the time period 2007 – 2013.

Vegetables & fruits	1.1	0.9	16.6	-	-	-	-
Seafood	13.2	14.0	16.6	15.8	13.5	16.2	12.3
Cashew nuts	0.5	1.9	-	-	-	-	-
Pepper	1.7	2.3	-	-	-	-	-
Computers, electrics & equipment	10.2	9.2	17	15.3	38.5	63.3	105.9
Ceramic products	4.2	3.4	2.2	2.0	1.9	2.2	2.1
Rattan, bamboo, sedge products & carpets	4.1	3.2	2.6	2.1	2.7	2.8	3.7
Plastic products	10.5	11.3	8.5	10.3	14.0	15.0	16.4
Hand bags, hats and umbrellas	7.3	11	8.7	8.3	12.6	10.9	15.1
Iron & steel products	-	-	7.5	8.5	10.5	11.0	6.2

Source: General Statistics Office of Vietnam

5. ANALYSIS

This chapter introduces the analysis based on our findings in previous chapter. Vietnam-Sweden trade pattern is described to identify the milestones or important determinants that characterize the countries' trade relation. Subsequently, the trade theories will be brought into the picture to analyze whether these theories are consistent with the current trade relation between Vietnam and Sweden. Lastly, our suggestions on Vietnam's trade policy in the coming years and on future research will also be discussed in this chapter.

5.1. Vietnam-Sweden trade pattern

Vietnam-Sweden trade relation has obviously become stronger in the last decade very likely as the result of Vietnam's trade liberalization policy. Particularly, the export growth is worth noticing. From 2007 to 2013, the export volume from Vietnam to Sweden has increased by 350 % while the import volume remained unchanged, except for the year 2009. We see that Vietnam's exports to Sweden can be categorized into three groups of products that mainly harness the country's abundant resources, including raw materials and labor force. Group 1 consists of products such as wood and wooden products, rubber, seafood, and iron and steel products. However, other natural resources that have been considered abundant in the country such as crude oil, natural gas and coal have not been actively exported to Sweden. The second group is made up of labor force – intensive products, mostly handicraft products e.g. footwear, garments and textiles, ceramic products, and products made of rattan, bamboo and sedge. One exception is the commodity group 3, mobile phones and accessories that have absorbed the largest part of the export growth. Vietnam's export of mobile phones and accessories in 2010 was only 4 million USD while in 2013 the export volume of this commodity group reached 483.6 million USD, i.e. 121 times larger. This will be further discussed later.

The Swedish export to Vietnam on the other hand is composed of two groups: capital-intensive (both human and physical) group of products consisting of machines, cars, electronic products and equipment; and natural resource intensive commodity group including paper, wood, plastic materials, petroleum, iron and steel etc.

We can see in the pie diagram above that Mobile phone & accessories and Machineries & equipment are the two major commodity groups making an important contribution in Vietnam-Sweden trade.

5.2. Driving forces behind Vietnam-Sweden bilateral trade relation

The pattern of Vietnam's and Sweden's absolute advantages has apparently not been well researched that we cannot find either literature or research papers in this field. Nevertheless, we can hardly conclude that Vietnam and Sweden do not have absolute advantages in the production of any product. But let us assume that Sweden had absolute advantage in producing equipment and Vietnam had absolute advantage in producing textiles, we still find the theory of absolute advantage is irrelevant in this case. The data above mentions that Vietnam also exports computers and electronic equipment to Sweden with a huge increase from 10 million USD in 2007 to 106 million USD in 2013. This goes against the theory of absolute advantages which states that a country will produce and export the products in which it has absolute advantage. The theory of absolute advantage fails to explain the trade relation between Vietnam, a developing country, and Sweden, a developed country, and therefore it certainly exists a difference in the production technology. This also explains why Smith's theory is questioned and further developed by Ricardo. However, this trade theory should be mentioned and discussed because of its importance upon which later theories are created.

On the other hand, we find that the classical theory of comparative advantage is consistent with the pattern of Vietnam-Sweden trade relation. As mentioned earlier, Vietnam focuses on producing and exports the commodities in which it has comparative advantage. These are natural resource and labor-intensive products such as garments and textiles, wood and wooden products, footwear and other handicraft products. Sweden is good at producing capital-intensive products including machineries, equipment, pharmaceuticals and also natural resource-intensive commodities like iron, steel, wood. And the country has been focusing on producing these kinds of products to exchange with Vietnam. Thus the law of comparative advantage has not been proved. Neither Vietnam nor Sweden has been investing all its resources into its most profitable industries. The production in both countries has been spread and allocated on different industries. Ricardo is right by saying that the production output of the world should be higher if trade barriers did not exist. Since Vietnam committed to reduce tariffs on textile and garment products, computers and electronic equipment we see that Vietnamese exports of these commodity groups have increased. And this is in line with many studies e.g. O'Konor & Brange⁴⁹, Hammar⁵⁰. The fact that whether the production and trade pattern (we call this comparative advantage production and trade pattern to differentiate it

⁴⁹ M. O'Konor, S.Bränge, *Anti-dumping measures and trade diversion. A case study of the 2006 – 2011 tariffs on footwear from PRC and Vietnam*, Handelshögskola n I Stockholm, 2011, viewed 11 June 2014, <<http://www.uppsatser.se/uppsats/d7200734dd/>>

⁵⁰ T.Hammar, *Trade facilitation in Vietnam – recent progress and impact*, Lunds universitet, 2009, viewed 11 June 2014, <<http://www.uppsatser.se/uppsats/8e2720bcbf/>>

from the absolute advantage one) in both countries have reduced the prices and driven up the sales of goods in the two countries requires further research.

Although the Heckscher and Ohlin theory (H-O model) has proven deficient in explaining the recent patterns of international trade, the fundamental concepts of the theory seems useful to describe Vietnam's trade relation with Sweden. Vietnam exports goods that harness large amounts of abundant production factors that the country possesses. These are namely *labor force and natural resources*. A large proportion of the exports are wood and wood products, garments and textiles, footwear, seafood, steel and other handicraft products made of rattan, sedge and bamboo. On the other hand, Vietnam imports from Sweden the goods that require large amounts of production factors that are relatively scarce for the country, which is capital. Most of Vietnam's imports have been machineries and equipment, and chemical and pharmaceutical products. However, the H-O model fails to explain why Vietnam started to export capital-intensive commodities in 2010, such as mobile phones, machineries and equipment. Furthermore, all assumptions are not met in our comparison. The production factors, i.e. capital and labor do not move freely between Vietnam and Sweden due to the tax and different contractual systems. This is also partially due to the geographically long distance between the two countries. The technological level is obviously not the same in the two countries since Sweden is a developed industrial country while Vietnam is still considered to be a developing country. Consumers' tastes are also different due to e.g. some culture and lifestyle factors.

According to the H-O model, Vietnam is a labor-intensive country. Vietnam's cheap labor cost has attracted foreign investors to invest and expand their market in Vietnam. *FDI* is a good indication on how market expansion of MNEs in Vietnam has grown during the years. It is worth mentioning that it has been a dramatic inflow of foreign investments into Vietnam in recent years and that 58.4% of foreign investment capital has been concentrated in the industrial sector, i.e. telecommunication, electronics, information technology etc. The Swedish FDI into the Vietnamese market focuses also mainly on the same industries. Seeing Vietnam as a fertile investment destination with natural resources and a young abundant labor force, many MNEs have expanded their market in Vietnam, and at the same time applied their technological innovation policies to there endeavors in Vietnam. We believe that MNEs' *market expansion* in Vietnam has benefited the country and pushed the trading sector to grow, particularly in terms of trade of capital and skill intensive products. This in turn has also benefited the trade relation between Vietnam and Sweden. The fact that Sony, Intel, Nokia and Samsung, some of the international telecom and electronics giants, have recently opened factories in Vietnam is probably the main explanatory factor for the huge rise in Vietnamese exports of mobile phones to Sweden in the last 4,5 years. In addition, Cederholm states that Ericsson, a Swedish world leading company in telecom, has not participated in Vietnam's export of mobile phones at all, as they stopped producing mobile phones in Vietnam. This indicates that Vietnam-Sweden trade relation has rather had advantages from the investment flow coming to Vietnam from other investors than from Sweden. We chose to include Market expansion and technological innovation in our study as we think that these two factors help explain and complete the picture of trade between Vietnam and Sweden.

Since 1969, when the first *diplomatic relations* between Sweden and Vietnam were established, many projects have been carried out in order to maintain and strengthen this relationship. The paper Bai Bang mill is one of the projects that has been funded with support from Sweden through many decades since the 1960s, but surprisingly paper is not included in Vietnam's exports to Sweden. On the contrary, Sweden has increasingly but with only small amount imported paper to Vietnam, which very likely is to meet the domestic consumption. In other words, the Bai Bang paper mill, the largest project in the history of Swedish aid to Vietnam, has not generated exports or in particular export of paper to Sweden. We also find that although the diplomatic relation of Vietnam-Sweden has been developed from year to year since 1969, it was not until 2011 that the trade flow between the countries saw its rapid growth. Therefore, we conclude that the diplomatic relations between Vietnam and Sweden and the works relating to them have not made a considerable contribution to the countries' bilateral trade growth.

Vietnam's membership in the WTO in 2007 has contributed the advantages i.e. the opportunities for Vietnam to be a part of the world's free trade agreement, to be able to penetrate and expand its foreign markets in other countries, especially in Sweden. Since the restrictions on foreign investments in the telecommunication sector are removed the Vietnamese investment market has witnessed a big jump in the FDI sector with focus on the key industries including telecommunication, electronics and information technology. This happened during the period 2006 – 2012. This is good news because the increasing investment funded in Vietnam is a desirable opportunity for Vietnam to change their economic structure and the focus on speeding up the economic reform and growth in Vietnam, which in turn will lead to better corporative trade relation between Sweden and Vietnam. If we take a look at the import and export statistics in figure 4.1 we can see that the growth in trade flows increased significantly from 2007-2013, while it fell slightly due to the 2008 Global Financial Crisis. Despite this, it still remains very high by international standards. In accordance with the WTO commitments, the tariffs on many commodity groups such as Textile and garment, Automobile & automotive spare parts, Computer, Electronics & equipment were reduced. This is likely one of the reasons why the trade flows of these commodity groups started to increase. However the rise is much more rapid in Vietnam's export to Sweden than in Sweden's exports to Vietnam. The Swedish imports to Vietnam have increased with a moderate growth rate or almost remained unchanged from 2007 to 2012 except for in 2009. Not only Mobile telephones, the Vietnamese export of the commodity group Computers, electrics & equipment has also increased sharply since 2010. By joining the WTO in 2007, Vietnam was chosen as one of the countries that Sweden should start a development co-operation with that same year. Therefore we believe that Vietnam's accession to the WTO does have a positive effect on Vietnam-Sweden trade of the commodity groups whose tariffs were reduced in accordance with the agreement Vietnam signed in order to join the WTO. This WTO membership has also been a driving force to boost the trade relationship between Sweden and Vietnam. As we have mentioned above, the H-O model supports trade liberalization, which means this theory can also describe the reason for why Vietnam wanted to join the WTO and how this event has affected the trade relationship between Vietnam and Sweden.

In this study we did not focus on one single theory as our purpose was to describe and examine the driving forces behind Vietnam-Sweden trade relation. We wanted to capture as many factors as possible and try to find out which factor is perhaps more important than the other. Therefore, the adoption of many international trade theories has been useful. But we have many times suggested further studies that focus on one theory and go deeper in the analysis of this field would be interesting. Our study, therefore, could serve as the basis for those.

5.3. Suggestion for further research

As a potential investment area for Sweden, Sweden should take advantage of the technological upgrades that have already been generated to develop and build a stronger trade relation with Vietnam. We believe that the potential investment area Sweden should focus on in the future is the garments and textile market. Due to increasing labor costs in China, Swedish companies based in China like H&M should move their joint venture companies back to Vietnam for better trade conditions and a better work environment. Another profitable area is IT. Swedish companies should continue to expand their market in Vietnam. We suggest that Ericsson is a good investment company for further IT development. Last but not least, two more areas we suggest are machine & equipment and green technology. Sweden has an absolute advantage in these two fields, while Vietnam is a labor-intensive country. A co-operation between Sweden and Vietnam to develop these two fields is therefore desirable.

From the beginning the relationship between Sweden and Vietnam has been the development of cooperation as Sweden tried to help Vietnam out of poverty. But currently Vietnam is an important cooperative trading partner with Sweden, especially because of the higher amount of export from Vietnam to Sweden. Therefore, we believe that the unique trade relation between Sweden and Vietnam will continue to grow and expand in the future.

Based on these conclusions we suggest that the Vietnamese Government should take the mentioned factors into consideration while evaluating and implementing its trade policies. These improved trade policies is the continued push for the World Trade Liberalization Reform, which in turn will have a positive effect and be highly beneficial for the world economy. The attention should be focused on improving and building working skill and capacity for Vietnamese workers as well as for the future generations. Besides the growth performance is still dependent on how Vietnam can promote and reward activities that enhance the working skill and capacity for Vietnamese workers. Not only that, but Vietnam needs also develop the institutions that allow resource allocations to move freely and efficiently between Sweden, Vietnam and other countries to avoid price shock and shifts in global demand. This would make Vietnam an even more attractive investment destination for foreign investors. How this work could be carried out and what actions the Vietnamese Government would need to take are our proposal for further research.

6. SUMMARY

Chapter 6 is a summary and conclusion of our findings.

International Trade is a comprehensive field of study and trade relations between countries in terms of benefit and disadvantage can be explained by lots of determinants. Nevertheless, this research that has focused on Vietnam-Sweden trade relations in the last decade has generated some of the important factors behind trading of the two countries. We have used different trade theories i.e. Classical trade theory, the Comparative Advantage theory, the Heckscher-Ohlin model, and the Production Factor Theory to explain the trade pattern between Sweden and Vietnam, thereafter connecting these theories with our data to examine the driving forces between Sweden and Vietnam. We find that the most substantial driving forces behind the trade growth in Vietnam-Sweden relation for Vietnam are the market expansion and the foreign investments of recent years, which have resulted in an upgraded and a higher technological level. This in itself is the result of the Vietnamese Government and its effort in pursuing trade liberalization and an open-door economic policy. Joining the WTO is one of the greatest examples. We can probably state that Vietnam's membership in the WTO has attracted foreign investors to Vietnam and has led to a higher foreign investment rate. Also, foreign investors are attracted to Vietnam thanks to the country's comparative advantages in natural resources and a young abundant labor force with low wage costs. It is worth mentioning that the Foreign Direct Investment from foreign investors around the world has in a large extension benefited the bilateral trade relations between Vietnam and Sweden in terms of technological innovation.

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Appendix

(Interview with Peter Cederholm – Market Unit Manager on The Swedish Trade & Investment Council)

1. Vietnam's export of mobile phones to Sweden has increased dramatically in the last 3 years. What do you think are the determinants behind this growth?

Answer:” The main reason is Samsung, Nokia, Sony and Intel have opened factory in Vietnam and therefore shipped mobile phones from Vietnam instead of from any other country. And why these companies choose Vietnam to invest and expand the production in is due to, among other things, lower costs, the investment climate in Vietnam, the tax alleviations, access to labor market with low wage cost, etc.”

2. Does the Swedish company Ericsson have any impacts on this growth?

Answer:” No, Ericsson has absolutely not any impact. Ericsson has no longer mobile phone production in their business.