

Master's Thesis

Marel's Expansions in Vietnam: Maximizing the Returns and Mitigating the Risks.

Can Export Credit Agencies Help?

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Abstract

When private companies engage in cross border trade and/or investments in emerging market economies they are faced with risks that are different from risks in domestic markets. Emerging markets can offer opportunities for high returns, but at the same time the risks, including both commercial and non-commercial risks, can be high. Those risks need to be managed. Many private companies in developed economies and their business partners in emerging markets, including Vietnam, do not seem to be aware of the funding options that Export Credit Agencies (ECAs) can offer via their financial tools and risk mitigation instruments. This master's thesis analyzes the opportunities and the challenges that private companies may face when engaging in trade and investment in emerging markets. The thesis also analyzes and discusses options for using the financial tools and risk mitigation instruments offered by ECAs. The thesis uses a large Multinational Enterprise in Iceland namely Marel Food Systems and four fisheries processors in Vietnam as cases to conduct the research.

Key words: *Cross border trade and investment, emerging markets, export credit agencies (ECAs), commercial and non-commercial risks (political risk), funding and risk mitigation instruments, food processing equipment, fisheries sector, Vietnamese fisheries processors, pangasius.*

Table of Contents

University of Akureyri	i
Acknowledgements	iii
Abstract	v
1. Introduction	1
1.1 Rationale for this research and why Marel Food Systems was selected.....	1
1.2 What is an emerging market? And what are political and commercial risks?.....	3
1.2.1 Emerging markets	3
1.2.2 Political (non-commercial) and commercial risks	4
1.3 Availability of risk mitigation instruments from International Financial Institutions (IFIs) and the focus on Export Credit Agencies (ECAs).	5
1.3.1 International Financial Institutions (IFIs)	5
1.3.2 Export Credit Agencies (ECAs)	7
1.4 Objectives and research questions	9
1.5 Other related studies and knowledge gap filled	10
1.6 How is this study organized and implemented?	10
2. Theoretical review	13
2.1 Political and commercial risks in emerging markets	13
2.1.1 Political risk.....	13
2.1.2 Commercial risk	15
2.2 Are there any economic justifications for government involvement in trade finance?	18
2.3 Some criticism on ECAs in the literature	19
2.4 The role of ECAs during the current economic and financial crisis.....	20
2.5 Foreign entry modes for Multinational Enterprises (MNEs).....	21
3. Methodology.....	25
3.1 Rationale and limitations	25
3.3 Scenario building	28
3.4 Scenario analysis and assessment	29
4. Country brief, market analysis and assessment of Vietnam's food processing industry.....	31
4.1 Country brief for Vietnam	31

4.2 Market overview of livestock and fisheries sectors	33
4.2.1 Livestock industry (Pork, Poultry, Red meat)	33
4.2.2 Fisheries industry	41
4.3 Market analysis	44
4.3.1 Buyers' characteristics	44
4.3.2 Competition analysis	61
4.3.3 SWOT analysis for Marel in Vietnam.....	69
4.4 Preliminary conclusions, operational suggestions and rationale for further case study.....	73
4.4.1 Conclusions for the market research	73
4.4.2 Analysis of possible expansion and operational suggestions for Marel in Vietnam	75
4.4.3 Rationale for further case study	86
5. Case study report, scenario analysis, and success stories	87
5.1 Case selection and the introduction of the four cases	87
5.2 Scenario analysis based on findings from the four cases.....	97
5.2.1 Scenario 1: Buyer Credit Guarantee.....	97
5.2.2 Scenario 2: Supplier Credit Guarantee.....	101
5.2.3 Scenario 3: Export Loan.....	104
5.3 Success stories in using ECA's instruments	107
5.3.1 Olam International Limited and the use of Buyer Credit Guarantee from Danish ECA - EKF – for a manufacturing facility in Vietnam (2009).	107
5.3.2 A Jordanian company namely Modern Cement & Mining Company, and the use of Export Loan and Buyer Credit Guarantee from Danish ECA – EKF (period of credit: 2010 to 2017).	108
5.3.3 Grain and seed exporter Nibulon Company in Ukraine used EKF's Buyer Credit Guarantee to borrow money from a Western European Bank at a far lower interest rate than in Ukraine.	109
6. Discussions and conclusions.....	111
6.1 Answering the research questions, interpretation and evaluation.....	111
6.2 Limitations of the study	115
6.3 Need for further research	116
6.4 Other related studies and knowledge gap filled.....	117
6.5 Conclusions.....	117
References.....	121

Annex 1: Questionnaire to the 22 largest Vietnamese fisheries processors in summer 2011	130
Annex 2: Field trip questionnaire sent to the four selected cases/companies	132
Annex 3: Interview questions sent to ECAs of Denmark, the Netherlands, Singapore and Sweden	134
Annex 4: Entire itinerary of the field trip (from November 10 to November 30, 2011).....	139
Annex 5: Meetings and interviews implemented during the whole year when the thesis was written	142
Annex 6: Slaughtering households & points.....	144
Annex 7: Wet markets in Vietnam.....	145
Annex 8: Some photos in processing factory.....	146
Annex 9: Photos of the four selected companies	147

List of Figures

Figure 4.1. Ease of doing business in Vietnam 2011.....	33
Figure 4.2. Vietnam's domestic meat production in 2008	36
Figure 4.3. Top production of pig meat by country in 2008	37
Figure 4.4. Poultry and pork production from 2006 to 2009.....	38
Figure 4.5. Volume and value of Vietnamese fisheries export (including aquatic products) from 2006 to 2010	43
Figure 4.6. Fisheries raw material supply by region in Vietnam in 2008.....	44
Figure 4.7. Total fisheries sector production in Vietnam in 2008.....	49
Figure 4.8. Shares of total fisheries sector production in Vietnam in 2008.....	49
Figure 4.9. Subsidiary company structure	80
Figure 4.10. Representative office structure	84
Figure 5.1. Model of Buyer Credit Guarantee of the Danish ECA – EKF	100
Figure 5.2. Model of Supplier Credit Guarantee of the Danish ECA – EKF	103
Figure 5.3. Model of Export Loan of the Danish ECA – EKF	106

List of Tables

Table 3.1. Sources of evidence in case study methodology	26
Table 4.1. Farm size and production distribution	34
Table 4.2. Proportion of pork and poultry production in Vietnam	35
Table 4.3. Food processors in Vietnam (in livestock sector)	41
Table 4.4. Top 15 aquaculture producers by quantity in 2008 and growth	50
Table 4.5. Responses to the questionnaire from shrimp processors	51
Table 4.6. Responses to the questionnaire from pangasius processors	55
Table 4.7. List of the 30 largest Vietnamese pangasius processors/exporters and the 30 largest shrimp processors/exporters in value in 2010.....	58
Table 4.8. Monthly costs estimated for subsidiary company	81
Table 4.9. Monthly costs estimated for representative office	85
Table 5.1. Summary of findings among the four selected cases	91

1. Introduction

1.1 Rationale for this research and why Marel Food Systems was selected

In line with the trend of globalization, the number of multi-national corporations and medium sized companies who engage in cross border trade and/or investments in emerging market economies has been growing. In these markets companies are faced with risks that are different from risks in domestic markets. Emerging markets can offer opportunities for high returns, but at the same time the risks including both political and commercial risks can be high. These risks can prevent foreign companies from entering these markets, they can be an obstacle for expansion, force them to exit, and in extreme cases they result in bankruptcy of a firm. In order to avoid severe problems, and to be successful in unfamiliar foreign markets especially in emerging market economies, these risks need to be managed. If successful, entry into emerging market economies can enhance the opportunities of a firm, increase sales volumes and generate profits to fund further expansion. On the other hand, the local companies or business partners in emerging markets are not always in a ready position to undertake the contracts with international companies due to lack of financial capacities and/or lack of available and effective funding scheme to boost their investments.

This thesis focuses on how foreign companies (from developed countries), who are engaging in cross border trade in emerging markets, can use the funding and risk mitigation instruments provided by Export Credit Agencies (ECAs) to mitigate the risks. And at the same time the use of those instruments can help their local business partners (and/or their clients) access to greater variety of financial sources and solutions. This means that these local partners can be financially backed up by ECAs' instruments and thus enhance their investments and purchase more (capital) products from international companies.

In this thesis, Marel Food Systems is selected as a typical multi-national company who engages in cross border trade and investment in emerging markets. The emerging country the thesis focuses on is Vietnam. Marel Food Systems is one of the leading manufactures in food processing equipment and solutions worldwide. Marel is headquartered in Iceland and has production facilities for processing lines in fish,

poultry, meat, and further processing equipment in numbers of European countries, America and in Asia. Marel is ambitious to expand their business in emerging markets where the food processing industry is becoming increasingly important for example in China, Thailand and Vietnam. Vietnam is one of potential markets among other emerging markets in which Marel currently has operations and wishes to expand.

Vietnam is an agriculture based economy where the fisheries and aquaculture sectors are significant contributors to the economy. Total export value of those sectors was USD 6 billion in 2011 a 20 percent increase as compared to that of 2010 (SeafoodSource, 2011, p. n.p). The fisheries processing industry in Vietnam is getting more focused and modernized as fisheries products are exported to high income markets such as North-America, Europe, Japan and Australia. These are high income markets paying high prices if strict quality standards are met. Engaging in those markets can increase the total value of Vietnams' fishery exports substantially. Besides that, meat and poultry also has potential as Vietnam was ranked 7th (pork meat alone, in volume) as livestock producer in the world in 2008 (FAO, 2008c). However, the meat and poultry processing industries are still at an early stage of being industrialized as compared to the fisheries sector.

In spite of a potential growth in the food sector, Marel's sales volume in Vietnam market still remains low. Vietnamese processors still to a large extent use locally made equipment as well as cheap equipment imported from regional manufacturers within Asia. This could be due to lack of funding and limited access to large and long term loans to invest in modern processing lines that enable the processing of high value products. This will be investigated in the thesis.

Marel has already entered the market in Vietnam. First, the thesis will analyze and assess the food industry in Vietnam to see if it is feasible for Marel to expand in the Vietnamese market. The market analysis for the fisheries, meat and poultry sectors in Vietnam will be done in detail in chapter 4 of this thesis. Only after, and if, concluding that expansion is feasible, the thesis can look at the feasibility of using the funding and risk mitigation instruments of ECAs to promote trade between Marel Food Systems and food processors in Vietnam.

1.2 What is an emerging market? And what are political and commercial risks?

1.2.1 Emerging markets

This section briefly discusses the characteristics of emerging markets and political and commercial risks. These terms will be used, further described, and discussed in more detail along the thesis.

There are various definitions of emerging markets or emerging market economies. When talking about these terms people often mean that emerging market economies are countries in the process of rapid growth and industrialization. These are nations often moving from a closed to an open market economy. Some may refer to a nation whose economy is progressing toward becoming advanced economy from a transitional economy. Cavusgil, Knight & Riesenberger stated that emerging markets are found in East and South Asia, Eastern Europe, South Africa, Latin America and the Middle East with typical countries such as Brazil, China, India, Mexico and Turkey; emerging market economies are experiencing rapid economic growth, industrialization and modernization (Cavusgil, Knight, & Riesenberger, 2008, p. 254). While emerging markets can offer low cost manufacturing bases, they also pose some drawbacks at the same time like immature securities market, inadequate commercial and physical infrastructure (e.g. transportation, electricity, communications, ports, road network and railway connection), evolving legal systems and high risk business environment (Cavusgil, et al., 2008, p.254). One can find different definitions of emerging markets in many different textbooks in international business e.g. Cavusgil et al. defined emerging markets as “subset of former developing economies that have achieved substantial industrialization, modernization, and rapid economic growth since the 1980s” (Cavusgil et al. 2008, p.257). Wild, Wild, & Han defined emerging markets as “newly industrialized countries plus those with the potential to become newly industrialized” (Wild, Wild, & Han, 2010, p. 161). Finally, Daniels, Radebaugh & Sullivan defined emerging countries as “low- and middle-income country. Also known as developing country.” (Daniels, Radebaugh, & Sullivan, 2007, p. 749).

When the term “emerging markets” or “emerging market economies” is used in this thesis it means countries with low or middle income according the World Bank

(International Finance Corporation, 2006, p. n.p). This thesis thus uses a broad definition of emerging markets. Vietnam is classified by the World Bank as a lower middle income country and is considered as an emerging market economy in this thesis.

1.2.2 Political (non-commercial) and commercial risks

It has been mentioned in this thesis that political (non-commercial) and commercial risks are challenges and concerns for companies who engage in cross border trade and/or investment in emerging markets.

So what is political risk? There are many definitions of political risk. MIGA¹ defines political risk as “the probability of disruption of the operations of MNEs by political forces or events, whether they occur in host countries, home country, or result from changes in the international environment. In host countries, political risk is largely determined by uncertainty over the actions of governments and political institutions, but also of minority groups, such as separatist movements. In home countries, political risk may stem from political actions directly aimed at investment destinations, such as sanctions, or from policies that restrict outward investment” (MIGA, 2009, p. 28). The Oxford Handbook of International Business defines political risk as “the probability of disruption to an MNE’s operations from political forces or events and their correlates. It involves governmental or societal actions, originating either within or outside the host country, and negatively affecting foreign companies’ operations and investments. Political risk reflects the degree of uncertainty associated with the pattern of decisions made by the political institutions such as governmental and legislative agencies” (Lou, 2009, p. 2). When discussing the reasons why a country needs to set up an ECA, Stephens² states that “political risks are those relating to the actions of governments in importing countries to prevent payment being made to the foreign exporter, for instance problems with transferring foreign currency. Default by government or public sector buyers or guarantors in another example, as is civil war” (Stephens, 1996, p. n.p). The Danish Export Credit Agency – EKF – defines political risk from the perspective of a Danish exporter as follows: “a political risk means that your company does not receive payment for products due to impediments in the country you are exporting to. Such

¹ MIGA is one of five institutions of the World Bank Group.

² Malcolm Stephens has occupied key positions such as being the Secretary-General of the International Union of Credit and Investment Insurers (Berne Union). He also was the Chief Executive of the Export Credits Guarantee Department in the United Kingdom. He is now chairman of International Financial Consulting Ltd.

impediments include war (external armed conflict and domestic political violence), currency shortage, restrictions on use of currency, import or export bans, and interventions by local authorities that make it impossible to receive payment for the products” (EKF, n.d. a). In this thesis, when talking about political risk, the author uses and refers to the definition of Stephens and EKF on political risk. Beside political risk, commercial risk is also a concern to companies worldwide when they expand their business to emerging markets.

Commercial risk is defined by the OECD (in the context of export credits) as “the risk of nonpayment by a non-sovereign or private sector buyer or borrower in his or her domestic currency arising from default, insolvency, and/or a failure to take up goods that have been shipped according to the supply contract” (OECD, 2003, p. n.p). And Stephens has a quite similar definition on commercial risk “the principal commercial risks are insolvency of the buyer, default on payment by the buyer and repudiation of or refusal to accept the goods or services ordered” (Stephens, 1996, p. n.p). The Danish Export Credit Agency – EKF – defines commercial risks from the perspective of a Danish exporter as follows: “a commercial risk means that your company’s buyer is unable to pay due to liquidation, insolvency, cancellation of the contract or because the buyer is unwilling to pay” (EKF, n.d. a). In this thesis, when talking about commercial risk, the author uses and refers to the definition of Stephens and EKF on commercial risk.

1.3 Availability of risk mitigation instruments from International Financial Institutions (IFIs) and the focus on Export Credit Agencies (ECAs).

1.3.1 International Financial Institutions (IFIs)

This section will provide a brief introduction to and discuss the key differences between instruments provided by IFIs and ECAs. However, the thesis will in its analysis and assessment focus on the instruments of ECAs.

International financial institutions (IFIs) are financial institutions that have been established by more than one country, i.e. these are multilateral institutions. Some are global while others are regional. The shareholders are generally national governments. The IFIs that were established after World War II are the Bretton Woods Institutions i.e. the International Bank for Reconstruction and Development (IBRD) and the

International Monetary Fund (IMF). The IBRD was to assist in the reconstruction of Europe by funding long term projects and the IMF provided mechanism for international cooperation in managing the global financial system. The International Bank for Reconstruction and Development (IBRD), now known as the World Bank Group, consists of five institutions: (i) the International Bank for Reconstruction and Development (IBRD), (ii) the International Development Association (IDA), (iii) International Finance Corporation (IFC), (iv) the Multilateral Investment Guarantee Agency (MIGA) and (v) the International Centre for Settlement of Investment Disputes (ICSID). IFC and MIGA serve the private sector whereas IBRD and IDA work directly with governments and require government guarantees on their loans. There are also several regional development banks that were established to focus is on a specific regions e.g. the Asian Development Bank (AsDB), the African Development Bank (AfDB), and the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IDB), etc.

In emerging markets IFIs provide four key services/products for the private sector including: (i) equity investment/participation and loans (ii) guarantee/insurance against political (non-commercial) risks, (iii) technical assistance, and (iv) information and advisory services (Hilmarsson, 2008, p. 116). IFIs' risk mitigation instruments are used primarily to protect foreign investments against non-commercial/political risks. In other words, risk mitigation instruments of IFIs are designed to mitigate the risks that investors have little control over. These risks can be categorized as: political, breach of contract by a government entity, market and default risk (Hilmarsson, 2010, p. 20).

In a report submitted to the World Bank, PricewaterhouseCoopers categorized these risks as: political risks, contractual/regulatory risks, credit risks, and foreign exchange risks (PricewaterhouseCooper, 2003). IFIs seek to avoid commercial risks which companies can control on their own. The main and important benefits for lenders, investors and participating parties under these instruments are: (1) open market to potential investment, (2) enhance the credit-worthiness/lowering investment costs of an investment (3) provide access to honest broker services (PricewaterhouseCooper, 2003, p. 14). IFIs often focus on large investment and capital intensive projects that private sector/companies cannot operate alone. These projects can, for example, be found in infrastructure, including the energy sector. Risk mitigation instruments offered by IFIs can focus on complicated cases where there is involvement of both public and private

sector – public private partnerships (PPPs) – e.g. the Nam Theun 2 hydropower project³ in the Lao PDR (Hilmarsson, 2010, p. 21). This also means that the time and procedures for project assessment before relevant guarantee/insurance is provided can be long and bureaucratic. In addition to that, the priority of IFIs' risk mitigation instruments is, as with all IFI interventions, to focus on development and poverty reduction rather than to support a specific individual company to obtain a commercial contract.

It should be noted that IFIs also have trade finance programs. The International Finance Corporation (IFC) has the Global Trade Liquidity Program (GTLP), the Asian Development Bank (AsDB) has the Trade Finance Facilitation Program (TFFP), the African Development Bank (AfDB) has the Trade Finance Initiative, the Inter-American Development Bank (IDB) has the Trade Finance Facilitation Program (TFFP), and finally, the European Bank for Reconstruction and Development (EBRD) has the Trade Facilitation Program (TFP). These programs have generally been enhanced and expanded during the current economic and financial crisis to facilitate cross border trade to emerging markets (Asmundson, Dorsey, Khachatryan, Niculcea, & Saito, 2011, p. 35).

1.3.2 Export Credit Agencies (ECAs)

ECAs tend to promote their home country economic interests. Their goal is to promote and support home country companies to internationalize and engage in cross border trade. ECAs can be considered as a government instrument for export promotion. As a result of this mandate ECAs may be willing to assume more risks and move faster than IFIs in processing guarantees, insurances, loans or relevant services to help promote home companies export. Many ECAs do not set any limits on the size of export or investment contracts for companies. This means that ECAs risk mitigation instruments can be suitable for both small to large private companies. Given the difference in criteria of selection and mandates of IFIs on providing risk mitigation instruments, this thesis will focus on the services and products of ECAs in regard to risk mitigation instruments in emerging markets.

³ “NT2 hydropower project is being implemented by the Nam Theun 2 Power Company Limited (NTPC). The shareholders (equity holders) of NTPC are: Electricite de France International (EDFI) of France (35%), Italian-Thai Development Public Company Limited (ITD) of Thailand (15%), Electricity Generating Public Company Limited (EGCO) of Thailand (25%) and Lao Holding State Enterprise (LHSE) (25%). Several IFIs provided loans to NTPC and / or guarantees to the private sector lenders: (i) Multilateral institutions including the World Bank Group's, IDA and MIGA, (ii) bilateral agencies, and (iii) export credit agencies (ECAs). A consortium of 16 commercial banks supported the project” (Hilmarsson, 2010, p. 21).

When private companies engage in cross border trade or investment in emerging markets, the risks they face are a key concern. Not only small and medium sized companies need to evaluate and assess the risks they face carefully but also large corporations with stronger financial capabilities need to protect properly their business from risks. In order to meet this existing demand for political and commercial risk insurance/guarantees, an industry has been formed. The leading association in this industry is the Berne Union (founded 1934) with 73 members including mainly ECAs, multilateral institutions, and private insurers (MIGA, 2010). “ECAs are either public-sector institutions in their respective countries, established to provide support for the exports of that country, or private-sector companies that act as a channel for government support for exports from the country concerned” (Yescombe, 2002, p. 218).

In general, the ECAs will charge a premium to those companies who use their products. The “OECD country ratings are designed to set guidelines to price the default risk on export credit and to set minimum premium rates charged by participating ECAs” (MIGA, 2010, p. 63). The ratings known as Knaepen Package came into effect in 1999, is a system for assessing country credit risk and classifying countries into eight risk categories, from 0 to 7 (OECD, n.d). Basically, the ECAs will assess both the political risks and the commercial risks before they issue guarantees to exporters or foreign buyers. ECAs use country ratings from the OECD as a platform to assess political risks or country risks while the commercial risk is assessed based on each individual company’s information such as operational and background information, audited annual reports, credit history, project feasibility studies, etc. Companies who are eligible to use the products and services provided by an ECA must have operations that are relevant to the national interest of the country where the ECA is located. In other words, the companies must contribute to national economic development of that country in a direct or indirect way. For instance, a company must typically have production facilities located in the home country of the ECA. The ECA can also support a home company who has production facility in a host country.

There are various products including risk mitigation instruments offered by ECAs and these products can be the same or very similar from one ECA to one another. Products of ECAs include, for example: Bond Guarantee, Investment Guarantee, Project Financing Guarantee, Financing Guarantee, Project Delivery Guarantee, Working Capital Guarantee or Reinsurance. The products that the thesis focuses on and analyzes

are: (i) Buyer Credit Guarantee, (ii) Supplier Credit Guarantees and (iii) Export Loans. Each individual ECA may have different names for their products. For instance the Export Credit Guarantee Department (ECGD), i.e. the ECA of the UK, calls Buyer Credit Guarantee and Supplier Credit Guarantee (the two products of EKF, the Danish ECA) as Buyer Credit Facility and Supplier Credit Financing Facility. The criteria for the instruments of ECAs can also be various. EKF, the Danish ECA and EKN, the Swedish ECA, do not set any limits to the minimum or maximum amount of contract value between the exporter and foreign buyer as long as the premium is sufficient to cover for their margin and operational costs, however, ECGD specifies the purchase of good or service worth at least £ 5 million for Buyer Credit Facility or £ 25, 000 for Supplier Credit Financing Facility.

The three products mentioned above were chosen for analysis based on the research on Marel Food Systems expansion in Vietnam, which is phase 1 of this thesis. Based on the responses to a questionnaire (see annex 1), which was sent to 22 largest fisheries processors in Vietnam in August 2011, these processors indicated that funding is one of their primary difficulties in modernizing their processing lines. However, further research to understand deeper the difficulties and constraints of these processors regarding funding their modernization and investments, was implemented in phase 2 during the field trip to Vietnam. A thorough analysis on constraints and difficulties faced by those processors is in chapter 5 of the thesis.

1.4 Objectives and research questions

The objectives of the thesis are to: (i) analyze and assess the feasibility of Marel's expansion in Vietnam, and if expansion is feasible, what would be the most suitable mode for expanding Marel's operations in Vietnam; and (ii) to analyze and assess the funding solutions and risk mitigation instruments available to Marel and its future clients in Vietnam to help enable the clients to modernize their processing lines/equipment (here the focus will be on the funding and risk mitigation instruments of ECAs). These two objectives will be analyzed and assessed in chapter 4 and 5 of the thesis. In chapter 4 the Vietnamese market is analyzed and operational options are suggested for Marel's expansion in this market. Chapter 5 of the thesis analyzes and assesses funding solutions as well as risk mitigation instruments for both Marel and its foreign clients in emerging markets.

In order to reach the objectives, the thesis will answer the following research questions:

- (1) Is it feasible for Marel to expand its operations in Vietnam and, if so, what is the most feasible mode of expansion?*
- (2) How can Marel, as an exporter, and the Vietnamese processors, as importers use the financial services and risk mitigation instruments offered by ECAs?*
- (3) Is the use of those financial services and risk mitigation instruments feasible for Marel and the processors as compared to the current funding mechanism?*

1.5 Other related studies and knowledge gap filled

The author of this thesis is not aware of any comparable study that has been carried out focusing on ECAs and large fisheries processors in Vietnam. Given that the case studies presented in the thesis will only focus on a few cases the results are not generalizable for the whole fisheries industry, however, the thesis is intended to fill in a knowledge gap by collecting data/information from selected processors in Vietnam who are among the largest processors. Furthermore the financial constraints faced by those processors will be analyzed and assessed. The thesis is intended to suggest solutions on how large processors in a low middle income emerging market like Vietnam can access funds with the support of ECAs to modernize their processing lines to achieve higher value for their products. Also the thesis shows how a company like Marel Food Systems can engage in more trade with companies in emerging markets without taking excessive risks.

1.6 How is this study organized and implemented?

The tasks and implementation of this thesis is divided into two phases, Phase 1 and Phase 2. Phase 1 of the thesis was conducted at Marel's headquarter in Reykjavik during the summer 2011. The tasks of phase 1 was to answer the research question: *"Is it feasible for Marel to expand its operations in Vietnam and, if so, what is the most feasible mode of expansion?"*. Phase 1 focuses on market analysis and assessment which is shown in the chapter 4 of this thesis. Only after completing Phase 1, and concluding that expansion was indeed feasible for Marel in Vietnam, the author could move to Phase 2. In fact the author did conclude that expansion is feasible and suggested a specific mode of expansion.

Phase 2 of this thesis was conducted during the fall and spring semester of 2012 at University of Akureyri. Phase 2 included a field trip to Vietnam to implement face to

face interviews and visit selected pangasius processors. During this visit various other meetings took place including with the Embassies of Denmark and the Netherlands, the World Bank Group as well as with academics. Export Credit Agencies in Denmark, Singapore and Sweden were also visited and interviewed on the way to and from Vietnam. This also included meetings with academics at Copenhagen Business School in Copenhagen, the Stockholm School of Economics in Stockholm and at the Harvard Kennedy School program in Vietnam that is based in Ho Chi Minh City.

During another trip the author of the thesis attended an international conference at the University of Latvia in Riga and made a presentation that has been published in peer-reviewed conference proceedings. During this trip the author also visited and interviewed the Export Credit Agency of the Netherlands and visited Marel's factory in Boxmeer. Phase 2 focuses on case studies, analysis and assessment of possible financial solutions to answer the other two research questions: *"How can Marel, as an exporter, and the Vietnamese processors, as importers use the financial services and risk mitigation instruments offered by ECAs?"* and *"Is the use of those financial services and risk mitigation instruments feasible for Marel and the processors as compared to the current funding mechanism?"*. The results of phase 2 are shown and discussed in the chapter 5 and 6.

The structure of the thesis is as follows: After this introduction chapter (chapter 1), there will be a theoretical review (chapter 2) and a chapter on the methodology used in the thesis (chapter 3). Then there will be a country brief and market analysis and assessment of Vietnam's food processing industry (chapter 4). Chapter 5 will focus on the analysis of selected cases and scenarios. The last chapter in the thesis is the discussions, results and conclusions (chapter 6).

2. Theoretical review

Political and commercial risks have become key concern for companies especially those who engage in doing business cross borders to emerging markets. Furthermore the role of ECAs has been growing, especially during the current economic and financial crisis. This chapter will provide a theoretical review of political and commercial risks in emerging markets. It will also discuss some economic justification for government involvement in trade finance as well as criticism on ECAs. The role of ECAs during the current crisis will be briefly discussed. Finally, different entry modes for multinational enterprises into foreign markets will be discussed.

2.1 Political and commercial risks in emerging markets

2.1.1 Political risk

Companies who engage in cross border trade and investments will face additional risks not present in domestic markets. These additional risks are called country risks which include risks arising from variety of national differences in economic structure, policies, social-political institutions, geography, and currencies (Meldrum, 2000, p. 1). Even though country risk may have a broader coverage in terms of literature meaning than political and commercial risk, this thesis attempts to focus mainly political and commercial risks covered by ECAs and IFIs that relate to trade finance. However, there has not been a clear cut classification of what political risk includes. Though in this thesis, the definition of political risk and commercial risk has been mentioned in the introduction chapter.

According to Meldrum political risk is one of six categories in country risk i.e. economic risk, transfer risk, exchange rate risk, location or neighborhood risk, sovereign risk and political risk. One should note that many of these categories overlap with each other due to the interrelationship of the domestic economy with the political system and with the international community. Meldrum classifies these risks as follows: *economic risk* arises from the potential for detrimental changes in fundamental economic policy goals (fiscal, monetary, international, or wealth distribution or creation) or a significant change in a country's comparative advantages (e.g. resource depletion, industry decline, demographic shift, etc.); *transfer risk* is the risk arising from a decision by a foreign government to restrict capital movements; *exchange rate risk* is an unexpected adverse movement in the exchange rate; *location or neighborhood risk*

includes spillover effects caused by problems in a region, in a country's trading partner, or in countries with similar perceived characteristics; *sovereign risk* concerns whether a government unwilling or unable to meet its loan obligations or is likely to renege on loans it guarantees; and lastly *political risk* concerns risk of a change in political institutions stemming from a change in government control, social fabric, or other non-economic factors (Meldrum, 2000, p. 5). According to this classification, one can see that economic risk overlaps with political risk because they both deal with policy, while sovereign risk is related to transfer risk in terms of restricting money transfer and also it is related to political risk due to some political reasons that (if) a country does not honor its commitments.

In another article by Schmidt when he analyzed political risk confronted by multinational enterprises, political risk is classified into three categories i.e. transfer risk, operational risk and ownership-control risk (Schmidt, 1986, p. 45). *Transfer risks* comprises of tariffs on exports, export restrictions, tariffs on imports, import quotas, dividend remittance restrictions, capital repatriation restrictions and nationality restriction; *operational risks* include price controls, increased taxation, export commitments, local content requirements, local sourcing requirements, local manufacturing requirements and financing restrictions; and *ownership-control risk* consists of geographic limitations on investment, economic sector limitations on investment, abrogation of proprietary rights, foreign ownership limitations, pressure for local participation, expropriation and confiscation. Whereas Yescombe when discussing project finance classifies political risk into three categories: *investment risks* i.e. currency convertibility and transfer, expropriation of the project by the state, political violence e.g. war and civil disturbance; *change of law risks*: changes in law or regulations under existing laws; *quasi-political risks*: this category includes issues such as contract disputes. Risks in this category may arise or have a political or commercial background and it means that the dividing line between commercial and political risks is not a clear cut one. In the context of project finance, Yescombe considers political risk is also country risk (Yescombe, 2002, pp. 204 - 205).

There seems to be neither a comprehensive nor a consistent classification of political risk definition exists because different studies often provide different or conflicting opinions on the definition and scope of political risk (Ekpenyong & Umoren , 2010, p. 28). Furthermore as Luo points out in the Oxford Handbook of International Business,

“different conceptualization of political risk can lead to different data sources, analytic tools, and interpretation of results.” (Lou, 2009, p. 8). At the same time political risks have received increased attention and are increasingly becoming a concern for companies who engage in international markets. Political risks are normally higher in emerging markets than in developed countries. The World Bank’s Multilateral Investment Guarantee Agency (MIGA) recently published a report titled World Investment and Political Risk (MIGA, 2009). This report includes an extensive literature review on foreign direct investment and political risks. The study found that while a degree of ambiguity exists when it comes to the relationship between political risk variables and foreign direct investment (FDI) based on econometric studies, findings based on surveys unequivocally support the view that companies do take into account political risk in their investment decisions (MIGA, 2009). According to the Economist Intelligence Unit in recent years there has been growing evidence that political risk not only features in investment decisions, but is also moving towards the top of corporate agendas, as reflected in various business surveys. This is especially true for emerging markets where generic political risk is identified as main investment constraint (EIU, 2007, p. 7). A report from Lloyd’s found that global businesses were becoming more concerned about risk from political violence. More than one third of 154 survey takers said that they were avoiding overseas investments for fear of political violence. This report also stated that business leaders believe political violence risk is real and rising; and concerns about political violence are preventing companies from investing where they would like to invest (Lloyd’s, 2007, p. 4).

2.1.2 Commercial risk

Unlike political risk, commercial risk is actually a business failure and mostly it rests in the corporates themselves e.g. lack of liquidity, long time running losses, insolvency, default on payment or refusal to accept the goods/products ordered etc. Commercial risk is faced by every company running their business and in contrast to political risk; commercial risk can be controlled or managed by companies themselves. Commercial risk is very much relevant to export credit risk since these two terms are referring to the risks in (international) transactions and exporters have mutual goal which is to avoid any related commercial risks may arise in transactions. If a company is not paid for an export receivable account it is a fundamental problem which export credit managers want to avoid.

In addition to that, when it comes to cross border business this risk becomes more complicated since this risk also derives from foreign buyers and/or foreign business partners. That is why one can see reasons why exporters are very cautious when exporting their goods or products especially to emerging markets. Therefore it is critical for trade credit managers to analyze their foreign buyers' creditworthiness before they enter into export contracts. However this is a complicated process before any decision is made since exporters have to consider country and foreign exchange risks as well as additional risk management options such as irrevocable letters of credit and export credit insurance. Although export credit decisions are important for exporters, this matter remains neglected largely by researchers (Ross & Pike, 1997, p. 1). In order to reduce or mitigate commercial risks many public financial institutions have been established by governments to help and support companies in their countries i.e. export-import banks, ECAs etc. The trend for the creation of these institutions originated from the formation of public and semi-public banks in Europe during the early the 20th century and especially when the second world war came to an end, the spread of national and regional banking establishments were speeded up in Western Europe with the initial aim to support the reconstruction of Europe (Schmit, Gheeraert, Denuit, & Warny, 2011, p. 27). In the publication namely Public Financial Institutions in Europe, Schmit et al. also discusses the rationale for the existence of public financial institutions. The rationales come from the missions of these institutions. These missions can be categorized into four clusters i.e. promotional missions, general interest missions, geographically-focused missions and general missions (Schmit et al., 2011, p.77). In order to perform these missions, different business models have also been created including National and Regional Development Banks and Agencies, Municipal Credit Institutions, Export Credit Agencies etc. Among these models, ECAs cover both commercial and political risks for the exporters. Additionally "ECAs provide export pre-financing loans designed to finance the expansion of production needed to fulfill export orders or provide guarantees for banking loans to export companies. To facilitate the conclusion of export contracts, ECAs also provide buyer's credits to foreign customers of exporting firms, whereas some additionally offer insurance services that cover foreign investments by domestic companies. What is more, some ECAs provide extensive studies of country-specific risks so that potential exporters can assess the risks associated with exporting to particular countries" (Schmit et al., 2011, p.90).

In order to reduce commercial risks, companies tend to have trade finance activities increasingly involved in their international transactions. Trade finance becomes key factor in the global trading system since it provides fluidity and security to enable the movement of goods and services (Auboin & Meier-Ewert, 2003, p. 1). To support this argument, the World Bank has pointed out the two fundamental aspects that trade finance supports, which are, risk mitigation and liquidity where trade finance can help to mitigate and/or compensate for risks (commercial and political risks) and facilitate firms access to credit to offset liquidity gap i.e. when firms incur production costs before they receive payment from the buyers. Obviously trade finance plays very important role in international transactions and some of 80 to 90 percent of all trade transactions are said to be financed (Chauffour & Farole, 2009, p. 5). A World Bank survey of 60 global buyers and suppliers in early 2009 indicated that 40 percent of companies stated that their foreign sales were delayed or canceled due to drops in new orders and 30 percent due to difficulties in obtaining trade finance. Two other surveys of the World Bank among 400 companies and 80 banks in 14 developing countries also indicated that although a drop in demand played a central role in explaining the decrease in trade finance flows, 30 percent of firms, especially SMEs (Small and Medium sized Enterprises), stated lack of finance on buyer's or company's part to explain the decline in exports (Malouche, 2009, p. 6). In a study, Venkataramany and Bhasin argued that export credit arrangements ensure protection from commercial risks, offers insurance mechanism from illiquidity and insolvency, and also are cost-effective. Through an empirical study the two authors affirmed the success of export promotion institutions in India and confirm the importance of these institutions with their instruments in leveraging international trade, at the same time cover risks both commercial and political risks. "About 90 percent of international trade is dependent upon export finance and export insurance. India has witnessed only a slight decline in its international trade due to the global financial crisis but the world, as a whole, registered a twenty-five percent decline in trade" (Venkataramany & Bhasin, 2011, p. n.p). In an earlier article Stephen also made a similar argument that commercial risk can be managed and avoided via export credit insurance hence it boosted confidence for exporters (Stephens, 1996, p. n.p).

In this section I do not intend to talk in depth about trade finance or export credit insurance but through this evidence we can see that trade finance and/or export credit

insurance is critically important for cross border trade to take place in addition to its function in mitigating and managing commercial risks. If commercial risks are not sufficiently covered (through trade finance activities or in other words, through financial instruments) firms are reluctant to perform transactions, thus it leads to declines in international trade especially in emerging markets where commercial and political risks are often high.

2.2 Are there any economic justifications for government involvement in trade finance?

According to Raoul Ascari⁴ the rationale for establishing an ECA has never been spelled out in a definite way. Furthermore he states that the "economic literature on this line of research has almost disappeared over the last two decades" (Ascari, 2007, p. 3). Ascari, however, refers to the World Bank Research Observer from 1989 that lists some rationales behind export credit. Those are: domestic distortions, capital market failures⁵; risk uncertainty and incomplete insurance markets; moral hazard⁶, and adverse selection⁷. As Ascari points out moral hazard and adverse selection may rise premium above the threshold at which exporters are willing to buy insurance (Ascari, 2007, p. 3). Other rationales for export credit and insurance are: industrial policies; export externalities; employment and balance of payments and matching other countries programs [for detail, see (Fitzgerald & Monson, 1989) and (Ascari, 2007)].

According to a report published by the WTO in 1999 aggravated asymmetric information⁸ in cross border trade, and the inability or unwillingness of private commercial banks to take on economic/commercial risks and political/non-commercial

⁴ At the time of writing his paper (2007) Raoul Ascari was the CFO of SACE. Currently he is the Chief Operating Officer of SAGE. In an email to the author dated February 22, 2012 Ascari confirmed that according to his knowledge this gap in the literature still exists.

⁵ Incomplete information on export risk can, for example, cause lenders to charge higher rates or to demand more collateral.

⁶ Moral hazard is a problem created by asymmetric information after the transaction occurs. This occurs when the borrower engages in activities that are undesirable for the lender in the sense that they make it less likely that the borrower can pay back the loan. In the case of ECAs moral hazard would exist if the insured exporter has an incentive to change its behavior once it has the insurance. The exporter would sell to a riskier importer and transfer higher risk than he would want to bear in the absence of insurance.

⁷ Adverse selection is the problem created by asymmetric information before the transaction takes place. This occurs, for example, when the borrower who is least likely to produce a desirable outcome most actively seeks a loan and thus is most likely to get the loan. Exporters would have an incentive to insure only high risk sales but not those that are considered low risk.

⁸ This implies that one party does not have enough information about the other party to make decisions. For example, the borrower who takes a loan often has better information on the potential returns on an investment project than the lender has.

risks is often seen as an economic justification in trade financing (Finger & Schuknecht, 1999). This is especially true for large and long-term trade contracts to countries with less developed financial systems. Obviously asymmetric information can be significantly larger in international trade, as compared with domestic trade. This is because information about foreign companies (e.g. importers) is often more limited or less familiar to the supplier or exporter and his bank than in the case of domestic clients. This problem relates to commercial risks. Another problem associated with distant market has to do with policy changes which make transfer of foreign exchange difficult or impossible thereby preventing the importer/purchaser from making a payment to the exporter/supplier. This problem relates to non-commercial risks.

ECAs from developed economy countries can help in this process if they guarantee exports to emerging markets and by doing so reduce the needs for domestic financing. ECAs can provide cover for both commercial and non-commercial risks. In fact most developed economy countries have ECAs that help promote exports. As Finger and Schuknecht point out ECAs provide trade related financing through three main instruments: (i) credits for trade transactions which would be difficult, or more costly to finance via commercial lending, (ii) guarantees for repayment of credits which help exporters receive more favorable lending terms from their local or international banks, (iii) insurance for exporters against commercial and non-commercial/political risk (Finger & Schuknecht, 1999, p. 9).

2.3 Some criticism on ECAs in the literature

The key principle of ECA activities is to protect exporters in home countries against the risks of buyers' default (including commercial and political risk) and facilitate international trade to take place. ECAs generally act as insurers to reimburse the exporters in case of non-payment and/or as guarantors to provide guarantees to banks or other financial institutions who are willing to lend either to exporters or importers. By doing this ECAs help exporters in their home countries to offer open competitive account terms in competitive markets (Chauffour, Saborowski, & Soylemezoglu, 2010, p. 5). However, due to their support to domestic exporting companies in their international operations ECAs have been criticized as nothing more than disguised export subsidies that distort world trade. "Others, most notably NGOs, object to allegedly perverse social and environmental effects of ECAs' policies. As a result, the Jakarta Declaration in 2000 called for the reform of ECAs. More precisely, the

signatory NGOs demanded that ECAs adopt stringent environmental, social, human rights and anti-corruption guidelines” (Schmit, Gheeraert, Denuit, & Warny, 2011, p. 90). In a publication of ECA-Watch namely “Race to The Bottom, Take II”, this organization strongly criticized “Draft Recommendation for Common Approaches on Environment and Officially Supported Export Credits: Revision 6”. This publication reported “current OECD guidelines for environmental and sustainable development review of export credit agency-backed projects fail to achieve their purpose. Significantly destructive projects that violate host country law, international environmental standards and international human rights and labor laws continue to be considered and supported by ECAs” (ECA-Watch, 2003, p. 4). This organization criticized the “Revision 6” for: (1) lack of commitment to sustainable development; (2) unreasonably limited scope; (3) lack of consultation, transparency, and public access to information; (4) lack of common standards and operation policies; (5) lack of monitoring and compliance mechanism for ECA-imposed conditionalities and other national and international obligations (ECA-Watch, 2003). Terms and conditions of ECAs applying to domestic exporters are also an issue for observers to put on the table. Garcia-Alonso, Levine and Morga argued that weak obligations of domestic firms to ECAs may lead to the abuse of exporting low quality products to developing markets. “Our results suggest that an ECG (Export Credit Guarantee) can improve the scope for trade by encouraging risk-averse firms to trade with countries which might engage in political default, but it may also reduce the scope for trade by increasing the incentive of firms to export low quality. This suggests that an excessive level of coverage will have a negative impact of trade. The reason being that high levels of coverage will decrease the expected losses of the firm if it decided to deliver low quality and therefore will discourage the importer country from signing an exports deal with the firm” (Garcia-Alonso, Levine, & Morga, 2004, p. 325). As these discussions show there still remains controversy about the role of ECAs and the consequences of their operations on the home and host country.

2.4 The role of ECAs during the current economic and financial crisis

In an increasingly globalized world, continued economic growth depends much on openness of economies and trade among nations. The current economic and financial crisis has severely affected trade flows. A recent IMF Working Paper shows that exports

of advanced, emerging, and developing nations were all growing strongly through mid-2008 but then dropping sharply in the second half of 2008 and 2009 (Asmundson, et al., 2011).

During the current times of crisis and economic turbulence ECAs' role is increasingly important. According to the IMF working paper mentioned above the prompt action by the G-20 and ECAs likely helped keep trade flowing during the worst of the disruptions (Asmundson, et al., 2011). A recent column published by two World Bank staff members, titled "Export credit agencies to the rescue of trade finance" argues that export credit agencies played a key role in stabilizing the trade finance market. They also refer to surveys that have detected an increased need for more guarantees and insurance to facilitate the release of trade finance funds (Chauffour, et al., 2010). Furthermore, according to Steve Tvardek at the OECD, when discussing trade flows in the aftermath of the economic and financial crisis that started in the fall of 2008, "ECAs not only became more important than ever as a source of trade finance, they actually became one of the principal policy tools governments used to cushion the real economy from the chaos in the markets" (Tvardek, 2011, p. n.p).

So key institutions, such as the IMF, the World Bank and the OECD clearly consider ECAs as important institutions to promote trade, especially during times of crisis and "chaos in the markets."

2.5 Foreign entry modes for Multinational Enterprises (MNEs)

Among various foreign entry modes, an MNE needs to study carefully the most feasible mode when entering or expanding in a foreign market. The entry strategy has to be in line with the objectives of the company and match the needs and resources of the MNE with the opportunities and constraints in a specific local environment (Peng & Meyer, 2011, p. 362). Decision on what kind of entry mode is chosen is also dependent on what kind of products/ services or the industry that MNE is in, yet it is interdependent with other factors i.e. location, timing, marketing, logistic, and human resources etc. The most popular foreign entry modes include, but are not limited to exporting, investment entry, contractual entry, licensing and franchising.

Exporting modes (direct and indirect) seems to be the most popular among other entry modes that is implemented by MNEs to expand and diversify their sales, and

gain international experience. This is typical for smaller companies (Wild, et al., 2010, p. 380-381). Direct exporting is an activity where MNEs sell their products directly to buyers in specific foreign market. A characteristic of direct exporting that should be noted is that direct exporters do not need to sell directly to end users. “Rather, they take full responsibility for getting their goods into the target market by selling directly to local buyers and not going through intermediary companies. Typically, they rely on either their local sales representatives or distributors” (Wild, et al., 2010, p. 382). Sales representatives can be an individual or an organization, they can be paid a fixed salary and a commission based on the value of their sales. Distributors are those who buy the direct exporters’ products and resell to the local buyers. They can earn profit equal to the difference between the price they pay and the price they receive for the products. On the other hand, if an MNE finds that they lack contacts and international experience and other resources to commit to exporting activities they can consider indirect exporting option as an entry strategy. “Indirect exporting occurs when a company sells its products to intermediaries who then resell to buyers in target market” (Wild, et al., 2010, p. 382). Indirect exporting can be found in some forms such as: (i) agents, individuals or organizations that represent one or more indirect exporters in a target market. These agents can receive compensation in the form of commissions of the value of sales; (ii) export management companies: companies that export products on behalf of indirect exporters. The main differences of this form compared to agents or distributors are that they usually provide additional services including gathering market information, formulating promotional strategies, researching customer credit, shipping arrangements and coordinating export documents etc.; (iii) export trading companies: companies that provide services to indirect exporters in addition to activities related to clients’ exporting activities. These additional activities include developing and expanding distribution channels, providing storage facilities, financing trading and investment projects and even manufacturing products (Wild, et al. 2010, p. 382-383).

Investment entry modes include a wholly owned subsidiary, acquisition (fully or partly), and joint venture. Each of these investment modes has different advantages and disadvantages and MNEs need to define what kind of investment entry is the most suitable for them among: (i) wholly owned subsidiary: a subsidiary entirely owned by the parent MNE. This model gives an MNE “full control and thus the ability to integrate the operation tightly with the parent firm and to determine what the subsidiary should

do. In particular, the investor can control the use of knowledge transferred to the affiliate without worrying that a local partner may use it for its own purposes” (Peng & Meyer, 2011, p. 369); (ii) acquisition (fully or partly) is to take over another business. Depends on what model of acquisition is chosen, the advantages and disadvantages will differ accordingly. Full acquisition provides investors with complete equity and operational control and local organizationally embedded resources, such as human capital and networks with local authorities. Hence better protection of know-how and ability to coordinate globally and this helps them have fast entry speed. Partial acquisition is acquisition of an equity stake in another firm. In other word, this happens when the seller is not willing to sell the business in full or the seller is still needed to run the operation. This model faces less investment risks because the initial capital investment is limited; (iii) the third model of investment entry is joint venture in which a new entity is jointly owned by two or more parent companies. The joint venture model has advantages over other entry modes i.e. an MNE shares costs, risks, and profits with a local partner and limits the financial risk of the investment. The MNE gains access to knowledge about the host country and this model can be politically more acceptable. However, it also poses disadvantages e.g. conflicts are common due to partners’ different backgrounds, effective equity and operational control maybe difficult to achieve, and joint venture doesn’t give an MNE the tight control over a foreign subsidiary that may need for global coordination. Yet, investment risk may be limited in this model but highly exposed to internal risks such as conflicts between parent companies (Peng & Meyer, 2011, pp. 369-375).

Contractual entry is typically used for companies who own intellectual property including ideas or works such as patents, trademarks and copy rights. “It incorporates such knowledge-based assets of the firm or individuals as industrial designs, trade secrets, interventions, works of art, literature and other creation of mind” (Cavusgil, et al. 2008, p. 452). Contractual entry comprises of licensing, franchising, management contract and turnkey project.

In the market analysis chapter (4) foreign entry modes will be discussed in more details in connection to Marel expansion in Vietnam

3. Methodology

3.1 Rationale and limitations

The methodology used in the thesis is the case study method. Compared to other research methods, case study enables the researcher to examine more in-depth the selected processors in the fisheries industry in Vietnam.

During the market analysis work (phase 1 carried out at Marel's HQ during the summer 2011), a simple questionnaire was sent to the 22 largest fisheries processors in Vietnam to better understand their behavior as well as possible constraints faced by them if they plan modernize their processing equipment (see annex 1). Among the respondents, four processors were selected to do an in-depth multiple case study through face to face interviews in Vietnam. Doing multiple case studies will help strengthen the findings of the research and it may expose different findings when analyzing each individual processor. Based on that, a few scenarios (discussed below) are constructed to show different financial solutions that might be suitable for different processor using different funding and/or risk mitigation instruments. In addition to this, ECAs in selected countries where Marel has production facilities were visited and interviewed to better understand their operations and instruments. Those ECAs are in Denmark, the Netherlands and Singapore. The Swedish ECA was also visited and interviewed as it cooperates with the Icelandic ECA that operates under Nýsköpunarsjóður Atvinnulífsins. IFIs, including the World Bank Group's IFC was interviewed and contact was made with the Asian Development Bank to better understand the instruments/funding options/solutions they offer compared to ECAs. Among the limitations of this research is that the findings of the case studies cannot be generalized for the whole processing industry in Vietnam. Rather than using a large sample and following a rigid protocol to examine a limited number of variables, the case study method involves an in-depth examination of specific cases and may yield important findings about large processors in Vietnam. This can help in identifying financial solutions that are affordable for the processors and can be beneficial for them as the value of their production increases after modernization.

3.2 Data collection

According to Yin (2009) there are six sources of evidence that the data can be collected from for case studies i.e. documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. Table 3.1 below will briefly describe these sources.

Table 3.1. Sources of evidence in case study methodology (Yin, 2009, pp. 101-113)

Source of Evidence	Description
Documentation	The different types of documents are for examples, letters, memoranda, email correspondence, other personal documents, such as diaries, calendars and note; administrative documents: proposal, progress reports, internal records; formal studies or evaluation of the relevant studies; news clipping and other articles in the mass media; agendas, announcements and minutes of meetings and other written reports of events.
Archival Records	For many case studies, archival records – often taking the form of computer files and records. These can be, for example, service records, organizational records, maps, and charts, survey data, and personal records.
Interviews	There are three main types of interview in case studies. They are in-depth interview, focused interview and the third type entails more structured questions interview along the lines of a formal survey. Mostly the interviews are conducted in conversational manner and investigator can ask key respondents about the facts of a matter as well as their opinions about events. In many cases the interviews may still remain open ended and assume conversational manner but the investigator is likely to follow a certain set of designed questions.
Direct Observation	This can involve observations of meetings, sidewalk activities, factory work, classrooms, and the like? Less formally, direct observation might be made throughout a field visit; observational

	evidence is often useful in providing additional information about the topic being studied. To increase the reliability of observational evidence, a common procedure is to have more than a single observer making an observation, whether of the formal or the casual variety.
Participant Observation	Participant-observation is a special mode of observation in which the investigator is not merely a passive observer, instead, the investigator may take a variety of roles within a case study situation and may actually participate in the events being studied.
Physical Artifacts	A final source of evidence is a physical or cultural artifact – a technological device, a tool or instrument, a work of art, or some other physical evidence. Such artifacts maybe collected or observed as part of field visit and have been used extensively in anthropological research.

Each of these sources has advantages and disadvantages and one should “note that no single source has a complete advantage over all the others. In fact, the various sources are highly complementary, and a good case study will therefore want to use as many sources as possible” (Yin, 2009, p. 101). Among these 6 sources of evidence the author of the thesis will mainly use the three sources which are interviews, documentations/secondary data, and direct observation in this thesis. Hence the data which is used in this thesis is qualitative including primary and secondary data.

Primary data used in this thesis is obtained and collected from many channels such as interviews (via telephone and face to face), opinions of the experts in the field through email exchanges, responses to questionnaires. *Interviews* were conducted in two ways via telephone and face to face method. When working on phase 1 at Marel’s headquarter at Reykjavik, phone calls were made to fisheries processors in Vietnam to ask them in detail regarding their responses to questionnaires sent to them previously. Interviews via telephone helped to follow up and obtain more detailed information which was not sufficiently answered in their responses to questionnaires. Face to face interviews with selected cases were conducted during the field trip in Vietnam. Visits to and interviews with ECAs in Denmark, the Netherlands, Sweden and Singapore helped provide important information which is not fully published on their websites. The

interviewees (from ECAs) also shared their own insight opinions relevant to export credit industry. Interviews with processors in Vietnam also provided detailed information about their constraints, difficulties, concerns in connection to accessing loans for investment and modernization in processing lines. Interviews helped better explain the questions and to avoid misunderstandings, information is provided right at the meetings. *Opinions* of experts in food processing industry in Vietnam were obtained through email exchanges. These experts include professors, sales and financial managers in the industry. *Questionnaires* were designed as open-ended questions to allow the interviewees to share their experience and opinions without constrained alternatives i.e. interviewees are not directed to a multiple choice answer only. Responses to questionnaires were collected from face to face interviews, telephones and emails.

Secondary data in this thesis is obtained through various kinds of documents e.g. research reports, company annual reports, books, and peer reviewed articles. Secondary data is collected from both internal and external sources. Internal company sources provide information to understand better the selected cases regarding their characteristics, capabilities, their operation etc. This data include annual reports from relevant departments in the companies/cases e.g. accounting department, exporting department. Brochures and catalogues from the cases and/or from ECAs regarding their risk mitigation instruments. External sources for secondary data in this thesis are for example research reports in related fields i.e. fisheries sector, food processing industry, financial, commercial and political risk analysis and reports and these documents were collected from e.g. FAO, World Bank Group, including MIGA, other IFIs, the IMF, the OECD and VASEP etc.

3.3 Scenario building

Based on the risk mitigation and funding instruments offered by ECAs in general and based on the constraints and difficulties that Vietnamese processors have regarding the ability in accessing to loans this thesis constructs three scenarios:

Scenario (1) - Buyer Credit Guarantee: ECAs issues a buyer credit guarantee to a bank that lends the buyer (processor) funds to pay for the order (to Marel). The bank pays Marel and ECA guarantees payment from the processor to the Bank.

Scenario (2) - Supplier Credit Guarantee: Marel grants the buyer (processor) an extended credit on amounts payable for the order. If the buyer defaults on the payment due to commercial or non-commercial risks, ECAs will pay Marel.

Scenario (3) - Export Loan: ECAs will provide the foreign buyer with a loan through a bank to pay for ordered products. ECAs and this bank will jointly set the premium and interest rate. The loan is based on the bank lending terms and regulations.

3.4 Scenario analysis and assessment

Based on the three scenarios above the author will conduct analysis and assessment of the results from the selected cases. In the interviews with the processors, some of them identified some equipment that they want to modernize as well as indicating future investment plans for modernizing their processing lines. They also identified certain amount of money that they need for this investment. The scenario analysis will show how companies can obtain funding solutions or guarantees to access loans. The material for this analysis is from the results of the field trip in Vietnam and the instruments offered by ECAs that were discussed with them in detail when they were visited by the author of this thesis.

4. Country brief, market analysis and assessment of Vietnam's food processing industry

This chapter will describe the economic situation and development in Vietnam. It also provides an overview of the food processing industry including meat, poultry and fish. Following is the market assessment and primary conclusion to whether or not Marel should expand its operations in food processing market in Vietnam. If the conclusion is to expand, some models of operations will be discussed and suggested.

4.1 Country brief for Vietnam

Country profile

- Surface area: 329,310 square km
- Population: 87.3 million (World Bank, 2011d)
- Official language: Vietnamese
- Government: Communist, single party system
- Capital: Hanoi (Population about 6.4 million people)
- Largest industrial city: Ho Chi Minh city (Population about 7.1 million people)

Some key economic indicators

- Real GDP growth: 6.8% in 2010 (World Bank, 2011a)
- GDP (USD billions): 103.6 (World Bank, 2011c)
- GDP per capita: USD1,010 lower middle income (World Bank, 2011d)

Major exports (% of total)

- Crude oil: 16.8
- Textile & garments: 15.2
- Footwear: 7.7
- Fisheries products: 7.4

Major imports (% of total) (EIU, 2010)

- Machinery, equipment & parts: 17.5
- Refined petroleum: 13.0
- Steel: 8.3
- Materials for textile: 3.0

Main export markets (% of total export) Main import suppliers (% of total import) (EIU, 2010)

- US: 20.6
- China: 22.7
- Japan: 13.5
- Singapore: 13.0

• Australia:	8.1	Japan:	11.1
• China:	6.8	South Korea:	7.9

Vietnam is one of the few surviving communist countries organized along traditional Leninist lines. It is a one-party state, within which the Communist Party of Vietnam maintains a tight grip on power. Although doing business in Vietnam still copes with many difficulties (see figure 4.1) especially because of problems such as red-tape, corruption and bribery, efforts are under way to make the government more accountable and transparent, and to restructure government ministries to reduce bureaucratic inefficiency. These efforts can be seen through the progress made by the government in reducing poverty, reducing restrictions on foreign investment and seeking to promote service sectors. Vietnam is increasingly integrating globally and is, for example, a member of ASEAN, AFTA, APEC and WTO. It was classified by the World Bank Group as a low middle income country in 2010. Vietnam's economy continues to recover rapidly from the global economic and financial crisis. After achieving 5.3 percent growth in GDP in 2009, the economy continued growing 6.8 percent in 2010 (World Bank, 2011a). This rapid recovery has been bolstered by robust domestic demand, higher level of investment and strong revival in exports with total value of USD 72.2 billion of which seafood accounted for USD5 billion in 2010 (World Bank, 2011b). Foreign direct investment has continued to remain buoyant and remittances have grown at a healthy rate⁹. However, by the third quarter of 2010, inflation started to accelerate, exchange rate premium in the parallel market widened. The prices continued to surge through the last quarter of 2010 by strong domestic demand, the increase in global commodity prices, and weather (floods, drought), disease-related domestic supply shocks.¹⁰

⁹ FDI in Vietnam continues growing from 6.9 billion USD in 2009 to 7.1 billion USD in 2010. FDI 2011 is forecasted at 7.2 billion USD (World Bank 2011). According to Reuters remittances of Vietnam in 2010 rise 14% to 7.3 billion USD compared with 6.4 billion USD in 2009 (Reuters, 2010).

¹⁰ Vietnam's high inflation is the result of the government's expansionary fiscal and monetary policy: it aims to increase credit by 25 % in 2010, to boost economic growth ahead of an important Communist Party congress in January 2011. The Dong has been devaluated three times since November 2009 to support exports and to narrow the trade deficit (Vietnam largely exports low-value goods and therefore competes on price) but this measure has, in turn, increased the cost of imports. Both the increase in loans and the Dong devaluation endanger price stability. Rising inflation, in turn, increases the downward pressure on the Vietnamese currency. The Central Bank had kept the base interest rate at 8 % since December 2009 to stimulate growth, but finally shifted its policy to combat inflation in early November 2010, and raised the base interest rate to 9 %. At the same time, the government has said that it will refrain from a further adjustment of the exchange rate before February 2011 (Atradius, 2010).

The economy's structure composes of three main sectors (as percentage of GDP): agriculture 20.9 percent, industry 40.2 percent and services 38.8 percent (World Bank, 2011c). Agriculture plays an important role in Vietnam's economy. It employs 60 percent of the total labor force. The agricultural products are exported to many foreign markets such as US, EU, Japan. Most of these commodities are rice, coffee and fisheries products.

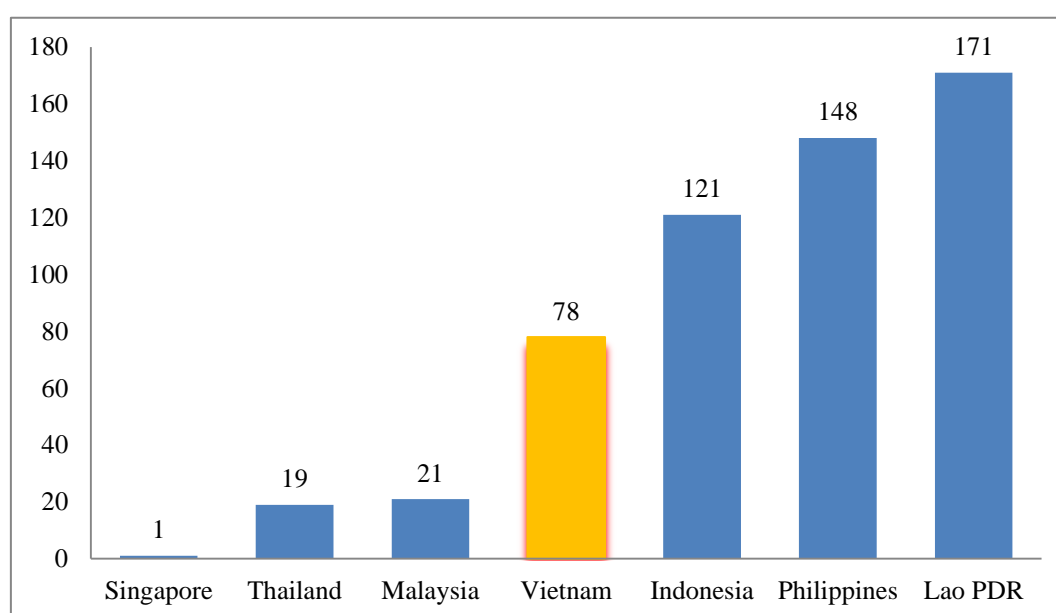


Figure 4.1. Ease of doing business in Vietnam 2011 (World Bank, 2011d).

Vietnam business climate continues to improve, Vietnam was ranked 94 in 2007 in the ease of doing business and in 2011 it shifted to 78 out of 183 countries.

4.2 Market overview of livestock and fisheries sectors

4.2.1 Livestock industry (Pork, Poultry, Red meat)

The livestock industry is very important to the Vietnamese rural area economy. It accounts for 27 percent of agriculture's contribution to national GDP, about 6 percent of total GDP (World Bank, 2009, p. 1). However, livestock production is fragmented and mainly conducted by small-scale households. There are about 11 million household producers who are small-holders owning from 1 – 20 pigs and/ or 1 – 200 poultries, more than 110 thousand farms are small-scale commercial farms and about 6 thousand farms are large-scale commercial. These small-scale households are producing 65 percent of the whole white meat (poultry and pork) in Vietnam in 2008 (see table 4.1).

For poor households, livestock is a major source of food and means to save and accumulate capital. Livestock can also provide draught power (bio-gas), transport (buffalo, cow) organic fertilizer and ready source of household cash. Obviously livestock production plays an important role in Vietnam's agriculture sector which generates jobs and income for 70 percent of the whole population. However, according to World Bank (2009) numbers of small-scale farms are projected to decrease by 18 percent in 2020 and small and large scale farms are estimated to increase 308 percent and 350 percent respectively.

Table 4.1. Farm size and production distribution (World Bank, 2009)

	2008	2020	Projected Growth (%)
A. Structure of poultry and pig production (number of farms)			
Smallholders	11,000,000	9,000,000	-18%
Small-scale Commercial Farms	110,368	450,000	308%
Large-scale Commercial Farms	5,800	26,100	350%
B. Domestic meat production and Imports (000mt)			
Pork and poultry meat	3,190	5,140	61%
Red meat	300	400	33%
Net meat imports (mt)	120	280	133%
Total meat	3,610	5,820	61%
C. Share of pork and poultry meat production (000mt)			
Smallholders	2,070	1,902	-8%
Small-scale Commercial Farms	800	2,467	208%
Large-scale Commercial Farms	320	771	141%
Total domestic meat production	3,190	5,140	61%
Definitions (number of animals/farm)			
	Pigs	Poultry	
Smallholders	1-20	1-200	
Small-scale Commercial Farms	21-500	201-2,000	
Large-scale Commercial Farms	501-15,000	2,001-200,000	

Most small-scale producers are located in Red River Delta areas and its vicinity provinces (Northern of Vietnam: Hanoi, Hai Phong, Hai Duong, Thai Binh) and

Mekong Delta River (Southern of Vietnam: Ho Chi Minh City provinces, Long An, Dong Nai, Lam Dong) which accounts for 76 percent (see table 4.2) of the whole national livestock production (World Bank, 2009).

Table 4.2. Proportion of pork and poultry production in Vietnam (World Bank, 2009)

<i>Administrative Region</i>	<i>Proportion of</i>		
	<i>Pig and Poultry Meat Production</i>	<i>Poultry Smallholder Producers</i>	<i>Pig Smallholder Producers</i>
Red River Delta			
South East	76%	72%	72%
Mekong Delta			
North Central			
North East	19%	21%	16%
South Central			
North West			
Central Highlands	5%	8%	6%

Livestock Production

Livestock production in Vietnam includes pig, chicken, beef, buffalo and small number of goats. The largest share of livestock products are pork 79.4 percent, poultry 12 percent and red meat 8.6 percent (see figure 4.2). Pork is the main nutrition and most wanted meat in Vietnam comparing with chicken or other red meat. In recent years, i.e. from 2006 to 2009, production of pork has been increasing on average 4.5 percent year on year (FAO, 2009b), while poultry also grew rapidly and increased from 358,8 metric tons in 2007 to 448,2 metric tons in 2008¹¹, a 25 percent increase. However, growth of poultry production did slowdown in 2009 with 518,3 metric tons and increased only 15.6 percent compared with previous year (FAO, 2009a).

¹¹ There is a difference in poultry production in 2008 between FAO (448,2 thousand metric tons) and World Bank 2009 (420 thousand metric tons).

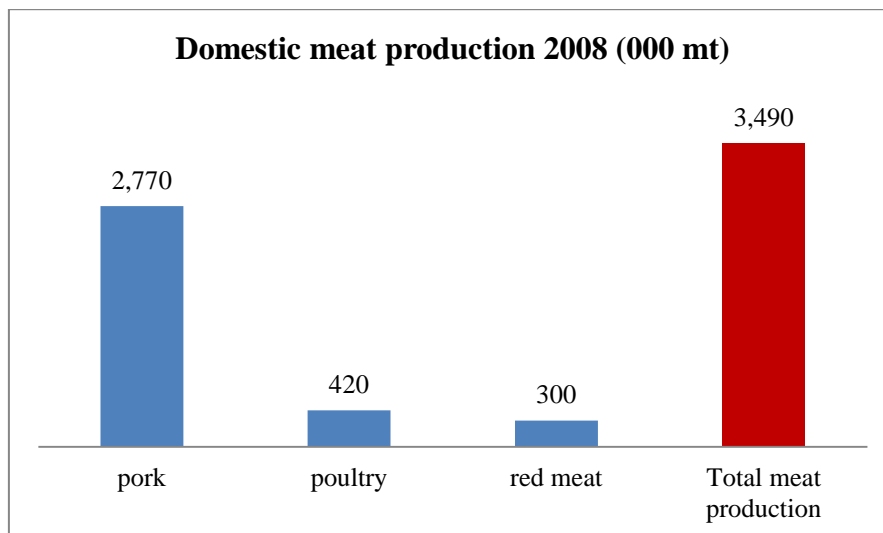


Figure 4.2. Vietnam's domestic meat production in 2008 (World Bank, 2009).

Pork

Vietnam ranks 7th of largest pork producers in the world, the top four countries in pork production is China, US, Germany and Spain in 2008, see figure 4.3 (FAO, 2008c). The recent increase in livestock production has been driven by rising domestic demand, particularly in urban areas where per capita incomes have risen fastest and the demand for a more varied diet has increased the demand for livestock products. Between 2000 and 2005, consumption of livestock products increased by 7.8 percent per annum (World Bank, 2009). And from 2006 to 2009 Vietnam's pork production has been increasing 4.5 percent on average year on year rising from 2.5million tons to 2.9 million tons. The main pork export from Vietnam is suckling pigs. This segment in the past has been exported to several neighboring countries, but disease concerns have recently restricted exports, only to the biggest market, Hong Kong. In 2008 Vietnam exported 9.113 thousand tons of pig meat (FAO, 2008a), however, Vietnam still needed to import 22.644 thousand tons of pig meat the same year mostly from US 27 percent, Canada 23 percent, Hong Kong and China 23 percent (AAFC, 2010).

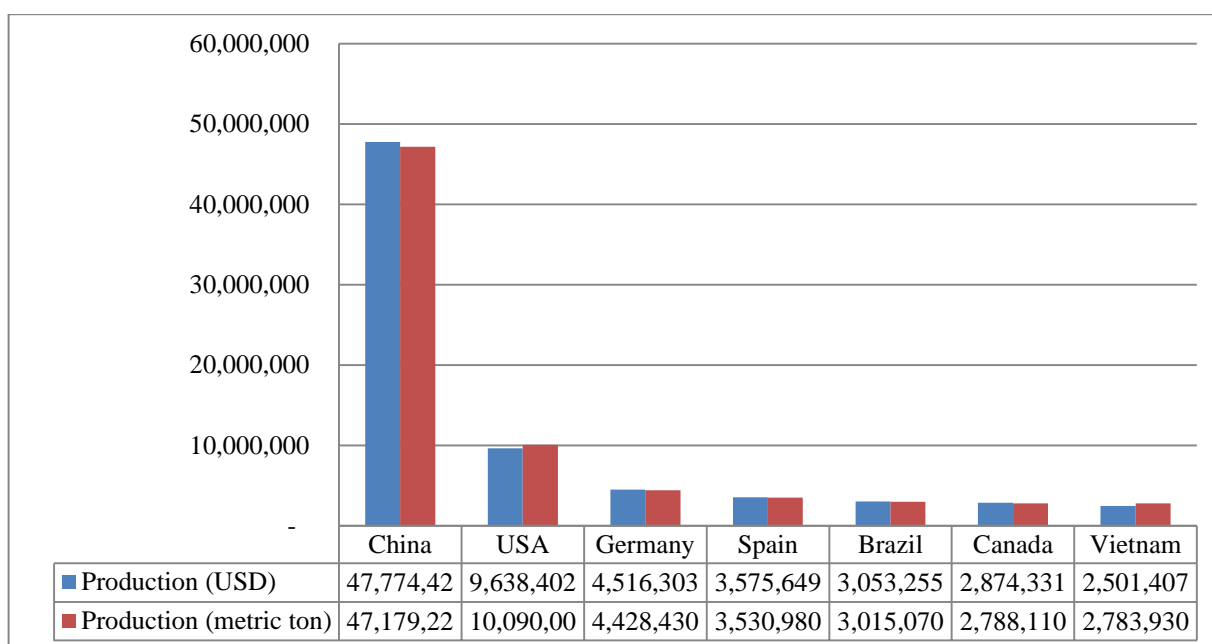


Figure 4.3. Top production of pig meat by country in 2008 (FAO, 2008c)

Poultry

After pork, poultry is the second most important meat for the Vietnamese people. The production of poultry ranks the second in livestock industry about 12 percent (see figure 4.2). Poultry production is mostly practiced in Red River Delta (North of Vietnam) with 26 percent of total production, followed by Mekong River Delta (South of Vietnam) with 20 percent, the northeast with 16 percent and the northeast of the Southern Vietnam with 10 percent. These four regions account for 72 percent of the country's poultry production. Ducks are also produced in Mekong River Delta accounting for 48.3 percent of the poultry production while in Red River Delta it accounts for 23.5 percent (FAO, 2008b). Like pork production, poultry is mainly owned by small-scale households. 92 percent of poultry producers are small-holders. Among main constraints faced by these small-scale households are lack of knowledge and access to production innovation due to weak capital investment, limited ability in disease prevention and control. Farmers are raising poultry based on traditional customs and experience rather than learning new husbandry practices and knowledge. Therefore Vietnam's poultry production remains limited and inefficient.

Poultry production increased rapidly between 2007 and 2008, i.e. by 25 percent from more than 358.8 thousand metric tons to 448.2 thousand tons. This growth slowed down in 2009 with 15 percent increase compared with previous year or 518 thousand

tons in volume (FAO, 2009a). Production capacity in poultry is far less than that of pork (see figure 4.4) and poultry sector is not able to supply sufficiently for local consumption. And thus Vietnam had to import 222.636 thousand tons of frozen chicken part and its offal in 2008 accounted 34 percent of total meat and poultry import volume. The key supply countries were USA (24 percent), Turkey (15 percent) and Hong Kong (14 percent). (AAFC, 2010, p. n.p).

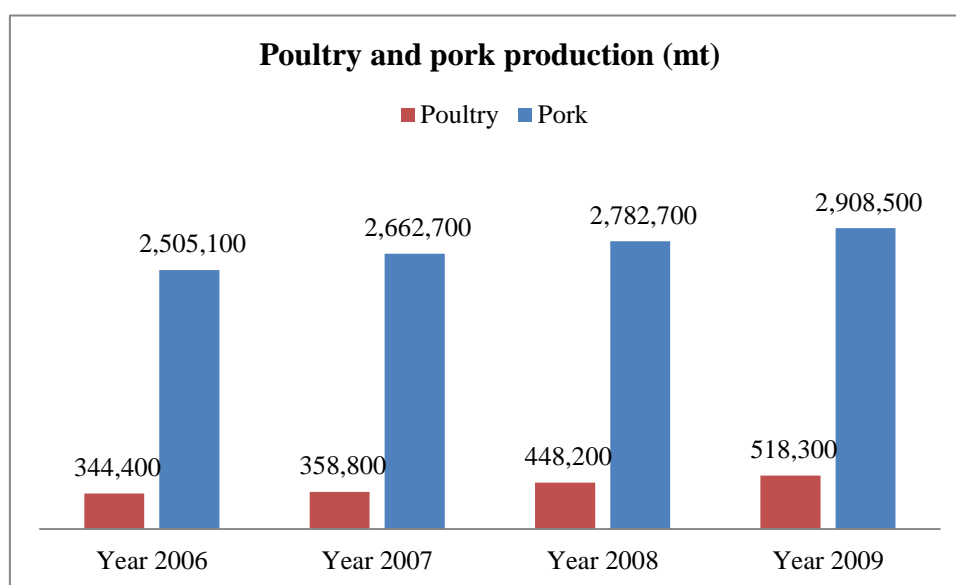


Figure 4.4. Poultry and pork production from 2006 to 2009¹² (FAO, 2009a, b)

Red meat

Cows and buffalos in Vietnam are mainly raised to work in rural areas. Vietnamese farmers in many communities are still using cows and buffalos as the main animals to work on their farms and fields rather than technological equipment or machines. Cows and buffalos are also used as a means of transportation in these areas. In addition to that, these big animals are a cash source and “fixed” assets in households (Dinh, 2009). Majority number of cows in Vietnam is raised for diary production and only small number of cows and buffalos are raised for meat production purpose due to intensive capital investment and long time to return on investment. There are some commercial farms for meat production but these farms also remain a minority. In the livestock production, share of red meat in Vietnam is very small 8.6 percent of total production. Red meat also accounts for only 9.5 percent of total meat consumption of the

¹² There is a difference in poultry production in 2008 between FAO (448.2 thousand metric tons) and World Bank 2009 (420 thousand metric tons).

Vietnamese people and it has been estimated that Vietnam had to import 0.3kg red meat per capita in 2008 (Vietnamese population was about 86 million) to fulfill local consumption demand (World Bank, 2009, p. 20). As a result, Vietnam imported 139.320 thousand tons of beef in 2008, of which 98.4 percent was frozen beef from India and USA; the rest of 1.6 percent is fresh/ chilled beef from USA, Australia and New Zealand (AAFC, 2010).

Livestock processing and distribution

So far livestock processing in Vietnam has not been practiced in an advanced way with technology or comprehensive equipment. For the livestock sector, the term “processing” is understood as “slaughtering” because slaughtering is the main activity done after livestock is taken from the farms and sold at the wet market¹³. The vast majority of livestock slaughtering in Vietnam is carried out under unhygienic backyard conditions by households specialized in this job. The slaughtering of livestock takes places at floor level (see pictures in annex 6) where carcass contamination is heavy. Small privately owned or commune-owned slaughterhouses process from 5 to 50 pigs and a dozen of poultry per day. They buy pigs or poultry almost entirely directly from household producers or via middlepersons and after that this meat is sold exclusively to the wet market. Large, commercial public owned plants or privately owned slaughtering plants buy from commercial farms and sell mainly to supermarket and restaurants or hotels (World Bank, 2009). Yet, this fresh meat is sold right after slaughtering at wet markets without any further processing like cutting, slicing, portioning, forming nor packaging (see pictures in annex 7).

As mentioned above, most of the meat after slaughtering is distributed to wet markets. Even though urbanization is currently booming in Vietnam which encourages the establishment of supermarkets, hypermarkets and many other convenient department stores, buying fresh food including meat, fish, vegetable at wet markets is still daily practiced by 86 percent of Vietnam’s consumers. There are hundreds of thousand wet markets across the country that sell meat and fish to the consumers. Consumers can find all daily basic food items and other products for households in these markets. However,

¹³ The main characteristics of the market have traditionally been associated with a place that sells live animals out in the open. The collection may include poultry, fish, reptiles, and pigs. In Vietnam nowadays, wet market is usually an open air market where buyers can buy all kind of daily basic food. In many rural areas, farmers directly sell their products like fish, poultry, vegetables that they produce or catch on their farms or fields.

it was estimated that there were 14 percent of consumers buying food from supermarket, hypermarkets or department stores like Big C, Metro Cash & Carry (mainly for wholesalers), Fivimart, Hapromart, etc. in 2007 (GAIN, 2008, p. 5). A combination of strong economic growth, rising income levels, a growing middle class, a sizable young population, and an increase in western lifestyle are causing the rapid growth of modern trade in Vietnam. In the period of 2003 – 2007, modern trade in Vietnam achieved an average growth of 20 percent and it was expected to continue to grow at this rate for the next five years (GAIN, 2008, p. 5). These supermarkets are estimated to be the main channel of distribution in big cities in Vietnam in the future.

Preliminary conclusion for the livestock sector

Livestock production has been increasing in capacity and seeking to fulfill the domestic consumption demand. The Government's Strategy for the Development of the Livestock Sector¹⁴ was approved by the Prime Minister in January 2008. It proposed that priority¹⁵ be given to meeting domestic demand and set meat production targeted of 3.2 million tons in 2010 rising to 5.5 million tons in 2020 (World Bank, 2009). There is a trend for large-scale farms with intensive and organized models to develop (see table 4.1) and small-scale farms will decrease. This will help the Vietnam's livestock sector to develop in a more industrial way, enhance the food processing industry and enable it to expand to a larger extent. In Vietnam currently, livestock is slaughtered and processed preliminarily and is sold to consumers. Meat in general is not much processed with equipment like cutting, slicing, portioning, packaging nor labeling in Vietnam due to the traditional behavior characteristics of Vietnamese people.

Though, there are some big food processors (both state owned and privately owned) in Vietnam who mainly focus on producing sausages, Chinese sausages, spring rolls, canned meat. Most of these products are served for local market. Given limited data obtained from these processors (as most of them are state-owned enterprises and sensitive in releasing information publicly). Currently, target consumers of these

¹⁴Decision No. 10/2008/QĐ-TTg dated January 16, 2008 of the Prime Minister approving the strategy on animal breeding development up to 2020 <http://luatvietnam.vn/default.aspx?tabid=651&id=38369FE9-5FC4-411D-9B8F-8F2AFE1A6B1A&rurl=%2fVL%2f662%2fQuy%E1%7Ft-dinh-102008QDTTg-cua-Thu-tuong-Chinh-phu-ve-viec-phe-duyet-Chien-luoc-phan-trien-chan-nuoi-den%2f38369FE9-5FC4-411D-9B8F-8F2AFE1A6B1A%2fdefault.aspx>.

¹⁵ Priority here includes tax exemption and/or low import tax rate (equipment, machinery). Decision No 394/QĐTTg, made by the Prime Minister in 2006 (valid from 2006-2008), was to support enterprises by giving priorities in land use, science and technology knowledge assistance, as well as to support them pay off at least 40% of interest rate of commercial loans.

processors are local markets and it takes time for them to shift to exporting where high international standards in terms of hygiene, quality, packaging and labeling which are required. Marel can still approach and consider these processors (who are producing food and further processing e.g. sausages) as potential customers in the future but that would be a medium or long term strategy, see table 4.3.

Table 4.3. Food processors¹⁶ in Vietnam (in livestock sector)

No	Company name	Main products	Website
1	Vissan	sausages, Chinese sausages, chilling food, canned meat, fresh meat	http://www.vissan.com.vn/
2	CP Vietnam	sausages, Chinese sausages, fresh meat	http://www.cp.com.vn/
3	Saigon Nutrifood	sausages, canned meat	http://www.saigonnutrifood.com/
4	Nam Phong	sausages, spring rolls	http://www.sagrifood.com.vn/
5	Phu An Sinh	pork, Sausages, ham, smoked pork	http://www.pas-food.com.vn
6	D&F Processor	fresh pork, chicken, ham, smoked pork, canned meat	http://www.dnf.com.vn/vn/san-pham/san-pham-che-bien.html
7	Vilico	fresh pork meat	http://vilico.vn/Products/2008-10/191.en
8	Animex	fresh pork meat	http://animexnghean.apps.vn/a/news?t=3
9	Binh Minh	fresh chicken meat	http://giacambinhminh.com.vn/doi-tac/
10	Cau Tre	Chinese sausages, meat balls, fish balls, shrimp balls, spring rolls	http://cautre.com.vn/vn
11	Hien Thanh Food	smoked pork, smoked beef, sausages, canned meat	http://www.hienthanhfood.com/
12	Duc Viet Food	sausages, chilling food, fresh meat, smoked pork	http://ducvietfoods.vn/

4.2.2 Fisheries industry

Vietnam, with a coastline of over 3,260 kilometers (km) and more than 3,000 islands and islets scattered offshore, plus up to 2,860 rivers and estuaries, has been

¹⁶ These processors were selected based on email communications with by Mr. Trung Do Minh – Marketing Deputy Manager of Vissan Group (one of the largest food processors in Vietnam) and through online search engines.

geographically endowed with ideal conditions for a thriving fisheries sector. For centuries, the Mekong River Delta in the south and the Red River Delta in the north have been used for wild catch fishing as well as extensive fish farming. The Mekong River Delta, one of the most productive fishery zones, covers an area of about 40,000 square km. In addition, there are about 4,200 square km of rivers, lakes and other natural bodies of water further inland, which swell to an additional 6,000 square km during periods of seasonal flooding (FAO, 2005, p. n.p).

The fisheries and aquaculture sectors are significant contributors to the economy of Vietnam. Total export value of those sectors was USD 6 billion in 2011 increased 20 percent compared to that of 2010 (SeafoodSource, 2011, p. n.p). About 50 percent of fish production comes from aquaculture (see figure 4.7). According to the Royal Embassy of Denmark in Vietnam in 2010, “Vietnamese aquaculture output and value have soared at an annual average growth rate of approximately 20 percent from 2000, exceeding the already high rates of the 1990s. By 2008 Vietnam accounted for almost five percent of world aquaculture output and value, triple that of 1990. Together, two products, Pangasius and the Giant Tiger Shrimp dominate, accounting for about two-thirds of total production and value. Moreover, this species dependence has increased over time. Production is concentrated geographically in the Mekong Delta and in particular the provinces of Dong Thap, An Giang, and Ca Mau. The narrow dependence on two species has enabled the aquaculture sector to specialize, but it has negative implications for economic risk and regional equity” (Royal Embassy of Denmark, 2010, p. 6). Vietnam’s fisheries product exports have increased considerable in recent years becoming a major income earner and one of Vietnam’s major export commodities. Aquatic products earned USD 3.36 billion in 2006, USD 4.50 billion in 2008 and USD 5.03 billion in 2010. Total export volume for 2010 was 1,353,156 tons, an 11.3 percent increase over 2009. Shrimp and pangasius are by far the most important aquatic exports, accounting for over 41.9 percent and 28.4 percent respectively of total fisheries export earnings in 2010 (VASEP, 2010)¹⁷. Currently Vietnam exports fisheries products to many countries all over the world but the main markets are: EU 23.5 percent market share (including, Germany, Spain, Holland, Italy and Belgium with main products as pangasius and shrimp), Japan 17.8 percent (shrimp), USA 19.3 percent (shrimp and

¹⁷ Vietnam Association of Seafood Exporters and Producers (VASEP) is a non-governmental organization, established on June 12th 1998, based on the principles of volunteer, autonomy and equality. VASEP members include leading Vietnamese seafood producers and exporters and companies providing service to the seafood sector.

pangasius). A large share of Vietnamese fisheries products are thus going to high income economies.

In Vietnam there are around one thousand seafood processors of which about 500 are also exporters recorded by VASEP. Most of the biggest processors are located in the south around Mekong Delta that supplies 58.7 percent of raw material, and is the largest raw material supplier in the country (see figure 4.6). In spite of a large number of processors operating in the country, exporting and production of fisheries products is conducted to a large extent by only top ten key processors who account for 21 percent of total export earnings in 2009. The top ten exporters (including pangasius and shrimp) yielded the value of USD 894.337 million (214.628 thousand tons) in 2009 alone (VASEP, 2009). These key exporters will be discussed further later in this thesis as they are large enough to be considered potential customers of Marel processing equipment/solutions.

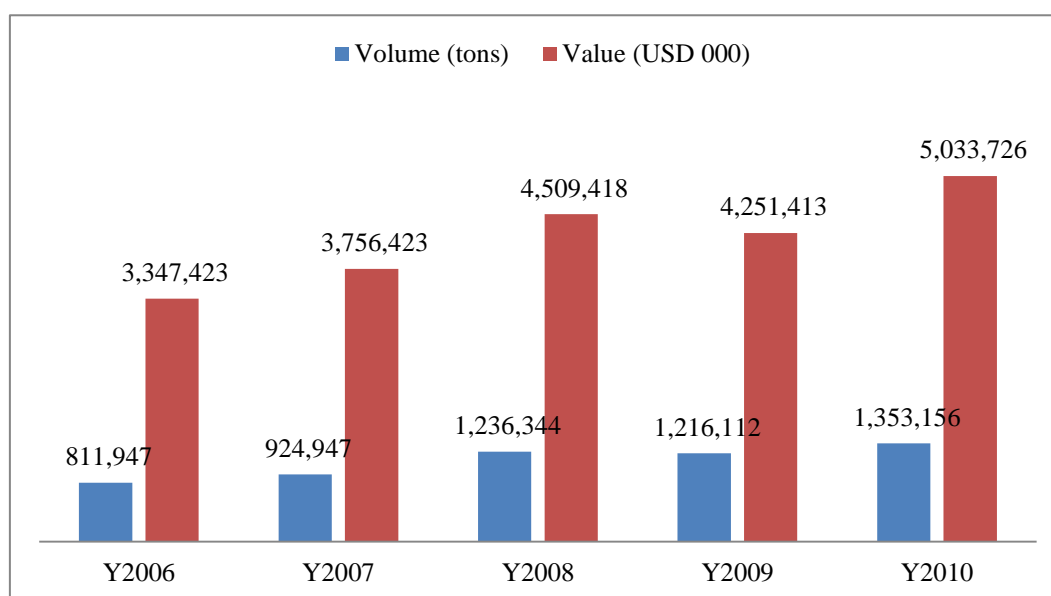


Figure 4.5. Volume and value of Vietnamese fisheries export (including aquatic products) from 2006 to 2010 (VASEP, from 2006 to 2010)¹⁸

¹⁸ Data of Vietnam's fisheries exports from 2006 to 2010 was sent to the author by VASEP via emails dated July 14, 2011.

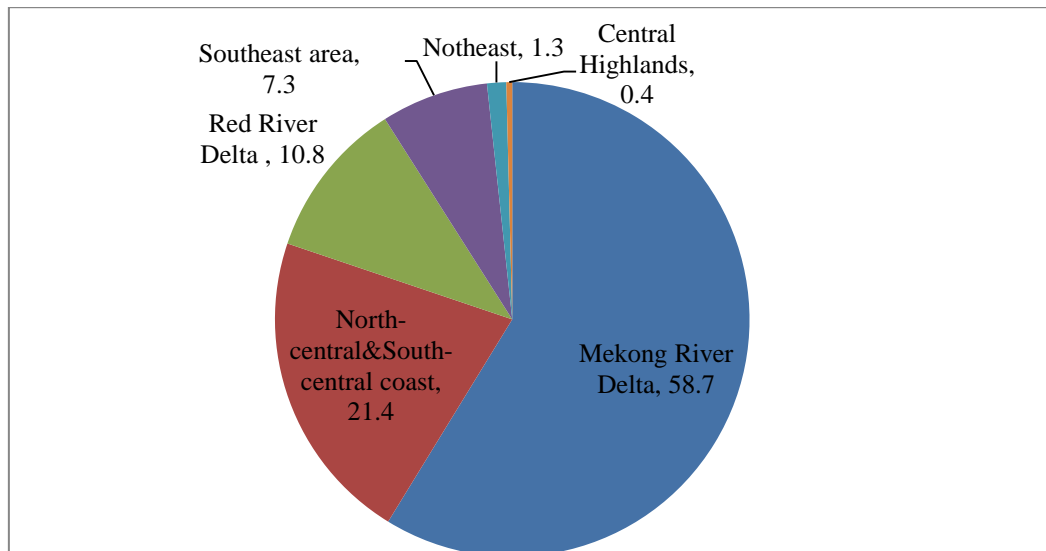


Figure 4.6. Fisheries raw material supply by region in Vietnam in 2008 (in percent), (Sacombank, 2010)

4.3 Market analysis

As the analysis above has shown the livestock sector in Vietnam is currently in its early stages of modernization and industrialization. The market research for this thesis will thus focus on fisheries sector. This was discussed and agreed to with Marel Food Systems when the author had presented those results to Marel staff at the company's headquarters in August 2011.

4.3.1 Buyers' characteristics

As mentioned in the overview section of the fisheries industry, shrimp and pangasius are by far the largest fisheries export products, accounting for 41.9% and 28.4% respectively of total fisheries export earnings in 2010 (VASEP, 2010, p. n.p). As a result, most of those who are among the largest processors operate in those two products. Obvious target customers for Marel are these large processors¹⁹ as these companies may potentially have financial ability to purchase highly advanced and capital intensive equipment. Moreover, Marel's equipment is designed to serve large production capacity plants and therefore a processor needs to have large volume of raw material processed per day in order to benefit sufficiently from this equipment.

¹⁹ According to discussions with Mr. Sigurjon Eliasson – Marel Regional Manager Business Center, those who are regarded as large processors may produce about 100 tons of raw material per day for pangasius and 50 tons per day for shrimp.

This section describes some key characteristics, strategic developments, modernization in processing activities and the constraints of these largest processors, based on their responses to questionnaire sent to them in summer 2011, their annual reports for 2009 and 2010 and other secondary data (see annex 1 for questionnaire). For this thesis, a group of top 22 shrimp and pangasius processors were selected based on their export value. The size of those processors ranges from USD 30 million to USD 126 million (pangasius) and USD 50 million to USD 257 million (shrimp) in export value in 2010 (VASEP, 2010). This group is not representative for the whole fisheries processors industry and one cannot make any generalizations about the whole industry from the response provided by those processors. However one may learn something about those few large processors and some of those processors could be among potential customers of Marel.

- The largest processors (who also are the largest exporters) focus solely or mainly on high value fisheries products which in the case of Vietnam are shrimp and pangasius fillet. There are around 500 hundred seafood exporters (out of about one thousand seafood processors in total) who export many fisheries products including shrimp, pangasius, squid, octopus, crab processed in frozen, fresh or chilled from Vietnam. However shrimp and pangasius are the main and high value products. The top ten exporters of these two products were contributing about 21 percent of total export earnings in 2009 (VASEP, 2009, p. n.p).
- Large processors tend to target their products to high income markets/economies such as USA, Europe, Japan and South Korea. 68.3 percent of fisheries products are exported to these three big markets (VASEP, 2010). These markets demand high quality and strict hygienic standards and exporters to these markets have to meet this requirement in terms of quality control, hygienic, packaging and labeling if they want to remain and compete with other international competitors.
- There is a growing trend in expanding aquaculture production among those large processors to lessen dependence on raw materials from wild catching and or from middlemen. The common constraint for fisheries processors in Vietnam in general is lack of raw material due to decrease in unplanned wild capture. This severely affects large processors when they

rely too much on this source of raw material. In order to lessen this dependence, in recent years, large processors have set up their own fish/shrimp farms. Many other processors (or even those who already have their own farms) have contract with other farms to purchase raw materials according to their production plan. This practice helps processors become more independent in supply source and helps ensure more stable production. Aquaculture increased rapidly not only in volume but also in value. Aquaculture tonnage of Vietnam soared at an annual growth rate of about 20 percent from 2000 to 2008. Vietnam's aquaculture seafood volume and value accounted for almost 5 percent of world aquaculture output. (Royal Embassy of Denmark, 2010, p. 25). The leaders in this aquaculture trend e.g. Vinh Hoan company can self-supply 50 percent raw material for production a year, Hung Vuong 50 percent, Bianfishco 40 percent (these are pangasius processors); and Minh Phu 10 percent, Utxico 40 percent, (these are processors in shrimp), (Sacombank, 2010, p. 11). They have their own farms and foodstuff factories (also see figure 4.7, 4.8 and table 4.4 for aquaculture components and growth).

- Many large processors are fully aware of the importance of modernizing their processing equipment to increase quality, hygienic standards and value added of their products. Most of the large processors responded that they plan to modernize their processing lines to be more competitive, gain more market share and increase revenue. In recent years large processors have installed new expensive equipment imported from Europe, U.S and Japan for example, from companies like Vinh Hoan (recently bought new forming coating lines from Marel), Agifish (Marel, Mycom, Retech, Crown) Hung Vuong, CuuLong Seapro, Utxico (Aritsu, FMC foodtech, Fogiconsude) etc. These examples demonstrate that large Vietnamese fisheries processors are serious in modernizing and investing to increase their business performances.
- Another important observation is that funding is identified as the main constraint for most processors. Investment in new technology and advanced equipment in food processing lines often requires large capital investments. Harsh international competition challenges exporters to produce their products in line with very good quality standards that result

in high value products. However, when it comes to funding the modernization Vietnamese processors appear to face difficulties. Common finding suggest that all of the larger processors can get some loans from State-owned Commercial Banks, the Vietnam Bank for Agriculture and Rural Development (VNBARD), some International Banks, the Development Assistant Fund (DAF). They also use part of their own company's cash flow. In spite of access to these resources almost all processors address funding as their main constraint. However, this issue needs further research, including if processors are getting sufficient capital to fund a whole processing solution and if this capital is provided long term so that processors can repay from their normal cash flow without entering into cash flow problems which can be disruptive for the company. This issue is addressed in the case studies under phase 2 of the study.

- Beside the financial constraints the short term payment for equipment is commonly mentioned by large processors. Most processors claim that they have to pay within 3 to 6 months after the equipment is delivered or fully installed. This short repayment time may affect their cash-flow. Given this short repayment time processors may end up buying only the most important equipment and not invest in large and comprehensive solutions that in the long term would maximize their profits. This is addressed in the case studies.
- The fisheries sector in Vietnam is developing fast and firmly (see figure 4.5). Production capacity and export value is getting higher and higher (export value increased 18.4 percent in 2010 compared with 2009, VASEP, 2010). The number of processors is also increasing and performance of these processors is getting better thanks to their application of new technology and advanced equipment in processing lines. As a result, from their responses most of these processors are planning to continue modernizing their equipment and seek better solutions that yield more value and reduce manual work. All those who report that they have modernization plans say that this could likely happen within next 2 years and some others within next 3 to 4 years. These are potential clients that Marel may want to approach soon.

- Freezing equipment seems to be a common problem among these processors. 5 out of 13 processors said that they want to modernize their freezing equipment. E.g. Fimex a shrimp exporter reported that they want to buy freezing equipment if the new equipment can fasten the process and reduce loss in weight when they are being frozen.

During the preparation of the thesis a questionnaire was sent out to key processors in Vietnam. The purpose was to gain a basic understanding of some key constraints faced by them. The companies selected are all large players in the shrimp and pangasius processing industry. Table 4.5 and 4.6 summarize the common findings from the 13 largest fisheries processors out of 22 processors who responded to the questionnaire. This was done to collect some key information prior to the case studies that focused on some of the largest pangasius processors.

It should be noted that these responses do not reflect all the problems that these processors may face and sharing information is often sensitive in Vietnam. Table 4.7 provides an overview of the 60 largest processors/exporters in shrimp and pangasius. They could be potential customers of Marel.

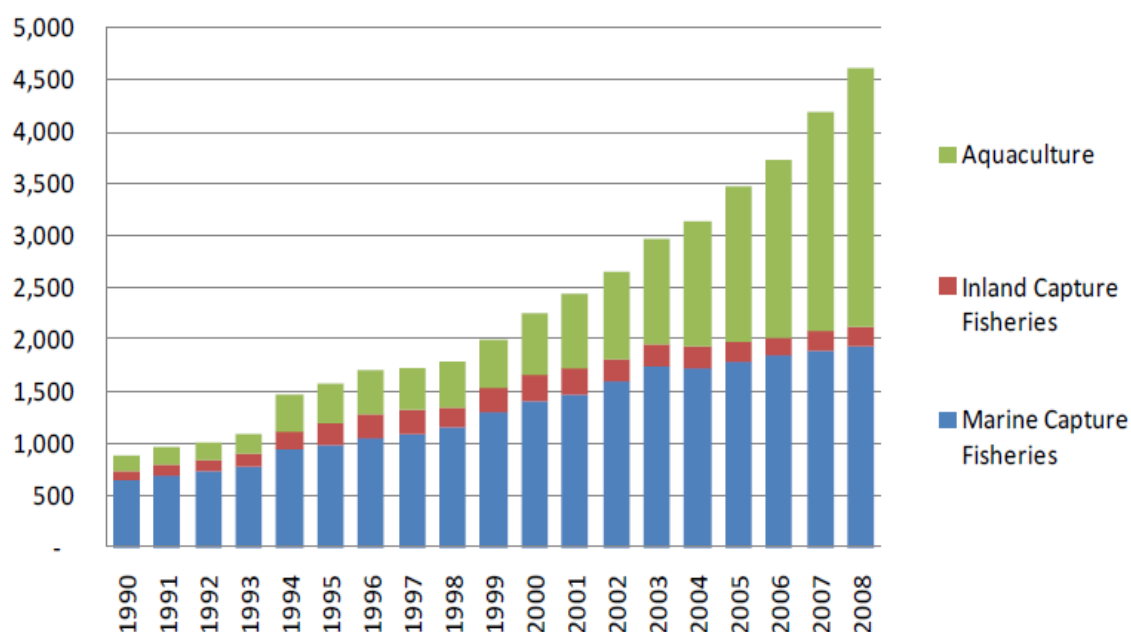


Figure 4.7²⁰. Total fisheries sector production in Vietnam in 2008 (tons), (Royal Embassy of Denmark, 2010)

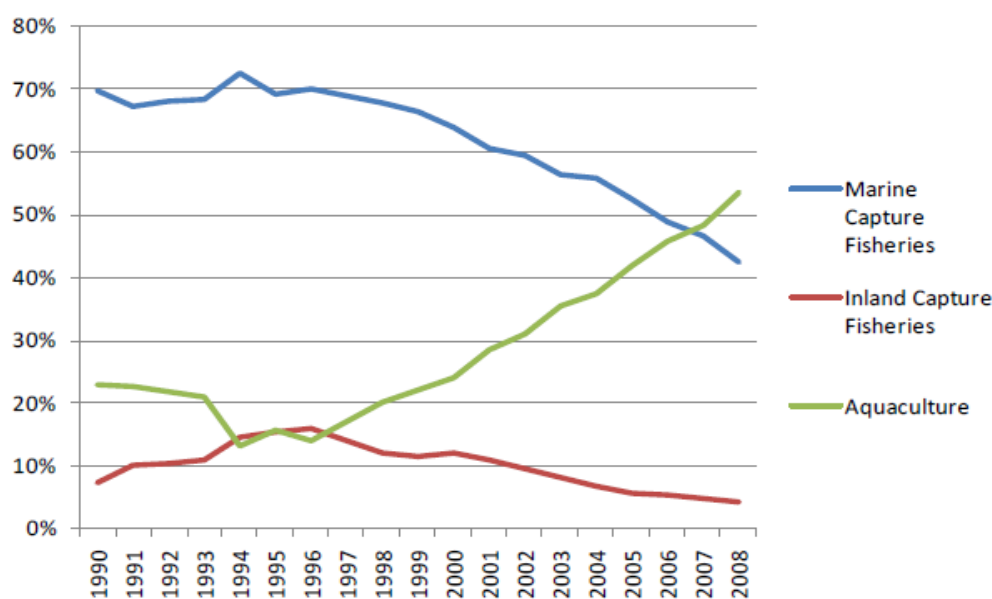


Figure 4.8²¹. Shares of total fisheries sector production in 2008 (percent), (Royal Embassy of Denmark, 2010)

²⁰ Production is thus split in roughly half between farmed fish and fish caught in the wild. Within the latter category, wild fish caught in inland water bodies and rivers accounts for a tiny share of the total. Total production of the sector has been steadily growing over the past two decades, climbing to 4,582 thousand tons in 2008, representing an increase of 350 percent from 1990 levels. It is clear from the graph that much of this rise has been derived by the aquaculture subsector which has grown from almost nothing just twenty years ago (Royal Embassy of Denmark, 2010, p. 18).

²¹ From figure 4.8 one can see the dramatic growth of aquaculture. This growth is very likely to continue in the coming years.

Table 4.4. Top 15 aquaculture producers by quantity in 2008 and growth (FAO, 2010, p. 21)

	Production			Average annual rate of growth		
	1990	2000	2008	1990-2000	2000-2008	1990-2008
	<i>(Thousand tons)</i>			<i>(Percentage)</i>		
China	6482	21522	32736	12.7	5.4	9.4
India	1017	1943	3479	6.7	7.6	7.1
Vietnam	160	499	2462	12	22.1	16.4
Indonesia	500	789	1690	4.7	10	7
Thailand	292	738	1374	9.7	8.1	9
Bangladesh	193	657	1006	13.1	5.5	9.6
Norway	151	491	844	12.6	7	10
Chile	32	392	843	28.3	10.1	19.8
Philippines	380	394	741	0.4	8.2	3.8
Japan	804	763	732	-0.5	-0.5	-0.5
Egypt	62	340	694	18.6	9.3	14.4
Myanmar	7	99	675	30.2	27.1	28.8
United States of America	315	456	500	3.8	1.2	2.6
Republic Korea	377	293	474	-2.5	6.2	1.3
Taiwan Province of China	333	244	324	-3.1	3.6	-0.2

Note: Data exclude aquatic plants.

Table 4.5. Responses to the questionnaire from shrimp processors (see annex 1).

Questionnaire	MinhPhu(1) ²²	Utxico(3)	Stapimex(4)	Fimex(6)	CuuLong Seapro(10)	NhaTrangsf (11)	Cadovimex (16)
1. What are your main products? Please list your main products	Shrimp	Prawn	Shrimp & Prawn	Shrimp	Frozen black tiger shrimp	Shrimp	Shrimp, Prawn, Squid
2. How many percent of your production is for local market and how much is for export in terms of gross revenue?	100% for export	95% for export, 5% for local market	Mostly for export	100% for export	100% for export	99% for export	mainly for export
3. How many tons of raw materials are used in production per day for each of your main products? Please identify each product and tons processed per day	150 tons of shrimp	60-80 tons of prawn	145 tons of shrimp and prawn	43 tons of shrimp	60 tons of shrimp	70 tons of shrimp	10 tons of shrimp; 15 tons of prawn; 5 tons of squid
4. What are the main markets (or countries) your products are exported to? (%)	USA:40, Japan:17, EU:13, Korea:12, Canada:9	Japan:42, EU:23, America:25, other:10	US:50, Japan:33, Canada:9, EU:3	US:45, Japan:45, EU and other:10	US:28, EU:28, Japan:28, Singapore and Newzeland:16	US:55, EU:10, Korea:15, Australia:15, other:5	US:44, EU:16, Australia:14, Korea:12 other:14

²² Number in bracket () is the ranking number of exporters (size) by VASEP in 2010

Questionnaire	MinhPhu(1)²³	Utxico(3)	Stapimex(4)	Fimex(6)	CuuLong Seapro(10)	NhaTrangsf (11)	Cadovimex (16)
5. In the processing chain, what are your advantages		Our factory is located near raw material supply area, newly equipment installed	We have experience in the industry	We have experience in the industry	Our equipment is newly purchased, we have experience in the industry and good quality control		We have-experienced staff in grading manually
And disadvantages? (continued question 5)				We cannot control the supply of raw material (this is common problem in Vietnam)	Lack of raw material	Need more automatizing the processing line	The primary processing progress is rather low due to young and inexperienced workers
6. Are you satisfied with the processing equipment that you currently have? Why or why not?	We are somewhat satisfied	Somewhat satisfied	Somewhat satisfied but some equipment needs improving as it used for long time already	Yes we are satisfied	Yes, we are satisfied	Yes, somewhat satisfied	No, most of equipment is old and it doesn't match our production requirement and demand

²³ Number in bracket () is the ranking number of exporters (size) by VASEP in 2010

Questionnaire	MinhPhu(1)²⁴	Utxico(3)	Stapimex(4)	Fimex(6)	CuuLong Seapro(10)	NhaTrangsf (11)	Cadovimex (16)
7. Does your company have any plan to modernize the equipment or solutions in the processing chain in the future? Why or why not?	Yes, we have plan to modernize to improve and fasten production capacity	We don't have plan now	Yes we do	It depends, if our competitors modernize, we also need to do so	Not at the moment because our new equipment and its capacity is met the requirement of our company and the market	Yes, to reduce production costs	Not yet, because we need to use the capital for other investment e.g. purchasing raw materials and others
8. If you plan to modernize your equipment when is that likely to happen?	This is decided by Board of Directors		Within next 2 years	Within next 3-4 years	Within next 2 years		Within 3 years
9. What are the main problems or constraints your company wants to solve if you plan to modernize your equipment (or solution)?	We want to reduce manual work as much as possible	Freezing equipment	Freezing equipment	Freezing equipment (to shorten the freezing process)		Freezing and grading equipment	Freezing equipment and conveyor lines
10. If you decide to modernize your processing equipment in the near future what, if any, would be your main constraint?	We have not found any equipment to replace workers that works most effectively	Funding to invest and human capacity to run the new technology equipment	Funding is our constraint	Funding is the main constraint	Funding is the constraint	Funding is the issue	Funding is our constraint

²⁴ Number in bracket () is the ranking number of exporters (size) by VASEP in 2010

		would be our constraints					
Questionnaire	MinhPhu(1)²⁵	Utxico(3)	Stapimex(4)	Fimex(6)	CuuLong Seapro(10)	NhaTrangsf (11)	Cadovimex (16)
11. Where do you normally get funds to buy new equipment?	This should be answered by Accounting department	State-owned commercial banks, Intl. banks,	State-owned commercial banks, company's fund	State-owned commercial banks, Vietnam Bank for Agriculture and Rural Development, company's fund	State-owned commercial banks, Development Assistant Fund, company's fund	State-owned commercial banks, business partners, company's fund	From any banks that we can borrow
12. When you buy new equipment, how long do you have to pay normally?	Right after all the equipment installed and checked	Payment has to be done within 3 months after equipment and installed and checked	After the equipment delivered and installed	Within 3 months	Within 3 months	Within 3 months for contract below USD10.000 and 1 year for contract more than USD 100.000	Within 3 months

²⁵ Number in bracket () is the ranking number of exporters (size) by VASEP in 2010

Table 4.6. Responses to the questionnaire from pangasius processors (see annex 1).

Questionnaire	VinhHoan (1)	Hung Vuong (2)	Anvifish(3)	Agifish(4)	Bianfishco (7)	I.D.I(10)
1. What are your main products?	Fillet pangasius	Fillet pangasius	Fillet pangasius	Fillet pangasius	Fillet pangasius	fillet, steak, HGT (whole headed, gutted, and tailed)
2. How many percent of your production is for local market and how much is for export in terms of gross revenue?	100% for export	100% for export	100% for export	90% for export and 10% for local market	90% for export, 10% for local market	97.5% for export and 2.5% for local market
3. How many tons of raw materials are used in production per day for each of your main products? Please identify each product and tons processed per day?	300 tons	500 tons	250 tons	200-250 tons	200 tons	150 tons
4. What are the main markets (or countries) your products are exported to? (%)	USA:40, EU:35, Australia:9, Hong Kong: 8	EU:40, USA:10, Middle east:8, Mexico:12, other:30	USA:50, EU:40, other:10	USA:30, EU:25, Australia:10, Africa:8, Asia:27	USA: 70, EU: 20, other: 10	EU:40, Asia:14, Middle east:13, SouthAmerica:11

Questionnaire	VinhHoan (1)	Hung Vuong (2)	Anvifish(3)	Agifish(4)	Bianfishco (7)	I.D.I(10)
5. In the processing chain, what are your advantages and disadvantages?			We have our own fish-farms, good conveyors helps reduces work forces, lack of work force	We have difficulty in packaging and labeling (due to the variety of products)	We need supplementing freezing equipment	Our equipment is newly purchased from EU, Japan
6. Are you satisfied with the processing equipment that you currently have? Why or why not?	Yes, we are satisfied	Yes, generally we are satisfied		Yes, we are satisfied	Yes, we are satisfied	Yes, we are
7. Does your company have any plan to modernize the equipment or solutions in the processing chain in the future? Why or why not?	Not yet	Yes, we want to invest in value added equipment		Yes, we still need to modernize due to competition	We just need to supplement some more equipment	Not now
8. If you plan to modernize your equipment when is that likely to happen?	Within next 3-4 years	Within next 2 years		Within next 2 years	Within next 10 to 15 years	Within next 3-4 years
9. What are the main problems or constraints your company wants to solve if you plan to modernize your equipment (or solution)?				Freezing, packaging, labeling equipment	Deheading, color sorting, and freezing equipment	

Questionnaire	VinhHoan (1)	Hung Vuong (2)	Anvifish(3)	Agifish(4)	Bianfishco (7)	I.D.I(10)
10. If you decide to modernize your processing equipment in the near future what, if any, would be your main constraint?		Funding is the constraint	Funding is constraint	Funding is the problem	Funding is our concern	Our main concern is how to run the whole factory effectively
11. Where do you normally get funds to buy new equipment?	State-owned commercial Banks, Vietnam Bank for Agriculture and Rural Development, company's fund	State-owned commercial banks, company's fund, from Agency	State-owned commercial banks, Vietnam Bank for Agriculture and Rural Development, Assistant Development fund, company's funds	State-owned commercial banks, Intl. banks, Assistant fund, company's funds	Vietnam Bank for Agriculture and Rural Development	Private banks, State-owned commercial banks, Development Assistant Fund
12. When you buy new equipment, how long do you have to pay normally?	After equipment delivered and checked	Within 3 months	Within 6 months	Within 3 months	Right after equipment delivered and installed	Within 1 year

Table 4.7. List of the 30 largest Vietnamese pangasius processors/exporters and the 30 largest shrimp processors/exporters in value in 2010 (VASEP, 2010)

PANGASIUS					SHRIMP				
No	Company	Volume (tons)	Value USD million	% contributes to total export value	No	Company	Volume (tons)	Value USD million	% contributes to total export value
1	VINH HOAN CORP	42,637	126,443,979	8.86	1	MINH PHU SEAFOOD CORP	26,830	257,343,172	12.21
2	HUNG VUONG CORP	50,094	100,893,732	7.07	2	QUOC VIET CO., LTD	10,517	104,360,860	4.95
3	ANVIFISH CO	24,705	61,729,170	4.32	3	UTXI CO	7,674	84,692,872	4.02
4	AGIFISH	26,63	58,810,552	4.12	4	STAPIMEX	7,788	78,940,691	3.75
5	NAVICO	33,618	58,255,668	4.08	5	CAMIMEX	6,777	74,800,823	3.55
6	CL-FISH CORP	24,173	48,369,256	3.39	6	FIMEX VN	6,196	73,305,385	3.48
7	BIANFISHCO	17,545	43,943,914	3.08	7	PHUONG NAM CO., LTD	6,221	68,147,689	3.23
8	Cty CP TS NTSF	14,781	37,082,911	2.60	8	VIETNAM FISH - ONE CO., LTD	5,528	52,862,343	2.51
9	SOUTH VINA	15,683	35,412,519	2.48	9	SEA MINH HAI	5,239	52,760,038	2.50
10	I.D.I CORP	17,091	34,927,576	2.45	10	CUULONG SEAPRO	4,644	49,991,061	2.37
11	HIEP THANH FOOD	16,812	32,727,086	2.29	11	NHATRANG SEAFOODS F 17	7,716	47,200,267	2.24

PANGASIUS					SHRIMP				
12	CASEAMEX	13,059	30,135,846	2.11	12	THUAN PHUOC CORP	6,590	46,197,736	2.19
13	QVD FOOD CO., LTD	9,567	29,653,623	2.08	13	MINH HAI JOSTOCO	4,033	42,646,932	2.02
14	HUNGCA CO., LTD	13,308	28,219,990	1.98	14	Cty TNHH Grobest & I - Mei Industrial (Việt Nam)	3,429	37,008,150	1.76
15	THIMACO	13,030	24,546,796	1.72	15	AUVUNG SEAFOOD	3,651	35,593,025	1.69
16	Cty TNHH Đại Thành (tỉnh Tiền Giang)	11,164	24,301,249	1.70	16	CADOVIMEX	3,524	35,419,920	1.68
17	MEKONGFISH CO	12,394	23,523,683	1.65	17	SEAPRIMEXCO VIETNAM	3,970	34,727,255	1.65
18	Cty TNHH Thuận Hưng	8,403	21,463,860	1.50	18	SEANAMICO	2,893	30,932,556	1.47
19	Cty CP THS An Phú	11,030	20,815,344	1.46	19	PHU CUONG CO., LTD	3,313	30,150,652	1.43
20	BIENDONG SEAFOOD	10,396	20,686,512	1.45	20	VIET FOODS CO., LTD	2,308	29,826,641	1.42
21	Cty CP XNK TS An Mỹ	9,424	20,485,027	1.44	21	CASES	3,637	29,650,409	1.41
22	CADOVIMEX	7,469	20,054,033	1.40	22	KIM ANH CO., LTD	3,259	27,900,823	1.32
23	TO CHAU JSC	8,119	18,783,187	1.32	23	CAFATEX CORP	2,647	27,810,282	1.32
24	NTACO CORP	8,359	17,548,276	1.23	24	Cty TNHH CB TS và XNK Trang Khanh	3,084	27,366,284	1.30

PANGASIUS				
25	DOCIFISH	6,810	17,250,268	1.21
26	Cty CP TS Ngọc Xuân	7,813	16,081,659	1.13
27	Cty TNHH Hùng Vương Vĩnh Long	9,243	16,025,230	1.12
28	FAQUIMEX	7,473	15,245,331	1.07
29	GODACO	7,046	15,112,205	1.06
30	CAFATEX CORP	5,778	14,038,093	0.98

SHRIMP				
25	CAFISH	2,690	26,729,615	1.27
26	Cty TNHH Anh Khoa	3,061	25,722,908	1.22
27	Cty CP TS sạch Việt Nam	2,466	24,503,597	1.16
28	HAVICO	1,925	23,842,984	1.13
29	Cty CP CB và XNK TS Thanh Đoàn	2,725	22,797,924	1.08
30	OCEAN FOOD CORPORATION	2,835	20,402,449	0.97

4.3.2 Competition analysis

The demand for machinery and equipment for the food processing industry is increasing as the Vietnamese Government is creating a more favorable environment for this industry. The economy is being industrialized and both government policy and the intension of many food processors are to move increasingly towards high value products. Many processors in the food industry in Vietnam are therefore taking steps to modernize their equipment to increase their value added. Vietnam is now a low middle income country and given the strong growth rate in recent decades the move from low value to high value products is what necessary to achieve upper middle income status and eventually high income status. Although there is a single party communist government in Vietnam market economic principles have been adopted and the increase in value added must be private sector driven. However, the government can support by introducing policies that are conducive to private sector growth.

Food and beverage processing equipment consists of many different processing categories applied in the food and beverage industry such as: slaughtering, processing, packaging, wrapping, cooking, freezing, forming, filling, conveying and sealing equipment etc. And thus supply of food processing equipment is constantly being enhanced by both local and international manufacturers in Vietnam. This is especially true in fisheries sector since this sector needs to meet high international quality and hygienic standards; and also to increase the value of exported products. Demand for livestock processing equipment will also increase in the coming years to meet the various local consumption demands such as diet food, canned meat, sausage, etc.

The demand for machinery and equipment in the food industry in Vietnam is strong and the domestic machinery supply cannot satisfy internal demands due to the poor design and low quality. It should be noted that copycat²⁶ is one of major problems in this segment as these copycat products do not ensure good quality. Due to low production costs and the targeted consumers (of small scale processing enterprises) most domestic equipment is used by small scale processing enterprises because domestic consumption and the standards required are not as high as those targeted to international markets. Medium and large processing enterprises usually tend to import advanced equipment yet combine with using domestic equipment in some processing

²⁶ Copycat means someone steals an idea of someone else.

lines. Instead of using comprehensive solutions there is a tendency to use piece-meal solutions in Vietnam. Major international suppliers are from Japan, China and Taiwan. Japanese products are known for good quality and durability whereas Taiwanese and Chinese products tend to be chosen for affordability. Other high quality suppliers come from Denmark, Germany, Sweden, France, and Italy. (Swiss Business Hub ASEAN, 2006, pp. 36, 38). Vietnam food processing expanded rapidly and experienced an average growth rate of over 10% annually, in the last few years, according to GAIN 2009 (including dairy products, meats, seafood, fruits and vegetable) (GAIN, 2009, p. 17). As a result the local and international manufacturers are trying to tailor to food processing industry to meet the demands from food processing enterprises.

The next section will name and describe some of the main food processing equipment manufacturers in the fisheries and livestock sectors in Vietnam up to the time when the thesis was written. This section, however, is not exhaustive for the whole local competitors of Marel in Vietnam or international competitors. These competitors are categorized into three groups: (i) local manufacturers, (ii) international manufacturers from EU, U.S, Japan and South Korea (regarded as high range quality and expensive), and (iii) middle range products imported from other Asian manufacturers like Taiwan, China, and Thailand.

Local manufacturers

Nam Dung Ltd., (in fishery)

Website: <http://www.namdung.vn/>

Nam Dung Ltd., is a Vietnamese privately owned company founded in 1993. The main products of this company are: grader, instant freezer, slicer, fryer, shrimp peeler etc. Besides that Nam Dung also produces other relevant equipment in fishery processing such as washing equipment, conveyor, container, tray, transmitting station and trolley. This company also produces equipment accordingly to the specific orders from processors. In addition to a competitive price, ability in manufacturing and customizing equipment is the strength of this company. The company is also very strong with their freezing equipment (IQF) which can instantly freeze fishery materials. However, this is a local company with only few years of experience in manufacturing fishery processing equipment thus the technology and durability is not known. Nor is

the equipment very advanced and competitive as compared with international manufacturers (Nam Dung Ltd., 2011).

Utxico and Fimex (the third and sixth largest shrimp exporter in 2010 respectively) used Nam Dung's product).

TST Co., Ltd (fishery)

Website: <http://www.tstcoltd.com/>

TST is specialized in refrigeration and thermal insulation. This company was founded in 2000. TST is a large private owned company with many product ranges like cold storage door, cold storage panel, electric cabinet, compressor, evaporative condenser, plastic belt and curtain. In the fishery industry, TST focuses on freezing equipment such as: air blast freezer, contact freezer, refreezing and ice glazing machine. All of TST's products ranges are necessary for food processing plants and this company has many customers who are among the biggest fisheries processors and exporters in Vietnam namely Vinh Hoan, Minh Phu, Phuong Nam, Anvi Fish, Cuu Long, Hung Ca and Vianco, I.D.I etc. Value of each contract varies from USD 100 thousand to USD 1.6 million²⁷ (TST Ltd., 2011).

Recom Ltd., (fishery)

Website: <http://www.recom-vn.com/>

Recom is a company specialized in refrigeration in the fisheries industry. This company manufactures contact freezers, air blast freezers, refreezes and cold storage. Recom also imports some other equipment from U.S such as compressors, heat exchanger, monitoring and controller equipment. (Recom Ltd., 2011).

Anvifish (the third largest pangasius exporter in 2010) used this company's product.

Seatecco (fishery)

Website: <http://seatecco.vn/home/index.php>

²⁷ The contract value mentioned is to illustrate the production capacity and competitiveness of local competitors (of Marel). These figures (contract value) also reflect the purchasing power and large demand in modernizing equipment of Vietnamese fisheries processors.

Seatecco was a state owned company and in 2002 it was privatized into Joint Stock Company. Seatecco provides consulting services relevant to refrigeration projects, installation cold storages and freezing equipment, water and wastewater treatment systems etc. In the fishery processing industry, Seatecco manufactures and provides such equipment as: individual quick freezers, refreezers, evaporators, evaporative condensers, refrigeration compressors, contact freezers and air blast freezers. Seatecco also imports some other spare parts for equipment from Europe or U.S to fulfill the orders of processors (Seatecco, 2011).

Searefico (fishery)

Website: <http://www.searefico.com/vn/home/>

Searefico is specialized in the industrial refrigeration industry. Like many other companies in this sector, Searefico manufactures and provides equipment in refrigeration used in food processing especially in fisheries products such as: contact freezers, impingement steel belts IQF, fluidized IQF, tempura IQF, impingement refreezes, air blast freezers. Searefico also manufactures other equipment in processing plants like power and control system, low/medium voltage distribution system and other electrical relevant solutions and equipment. Searefico has been supplying its equipment to big fisheries processors and exporters in Vietnam like: Minh Phu, Cuulong Seapro, Kim Anh, Vinh Hoan etc. Value of each contract varies from USD 200 thousand to USD 1 million (Searefico, 2011).

Arico (fishery)

Website: <http://www.arico.com.vn/GL/vn/trang-chu/>

Arico is specialized in refrigeration engineering and machinery & equipment services. Besides providing all refrigeration and equipment in freezing (most products are the same or similar to other manufacturers mentioned above), Arico also provides processing lines and equipment in fishery, cooking and cooling machines, glazers, conveyors for feeding, leveling, hardening etc. Arico has done business with many large seafood processors and exporters in Vietnam e.g. Minh Phu, Stapimex, Camimex, Vinh Hoan, Thuan Phuoc, Utxico etc. Value of each contract varies from USD 200 thousand to USD 2 million (Arico, 2011).

Viet Cuong (Poultry & Pork)

Website: <http://www.vietcuong-machinery.com/>

Viet Cuong is privately owned enterprise manufacturing equipment in slaughtering poultry and pork. Viet Cuong's main products are slaughtering tools and equipment. This company also provides some simple machines for meat grinding and sausage making. Equipment for making yogurt, candy, filling and packing is produced by this company as well. Yet this equipment remains less advanced and it suits the small and medium slaughterhouses and processors in the industry. (Viet Cuong, 2011).

Saigon Technology – Techgel (meat and sausage)

Website: <http://www.techgel.com/>

This company operates in many industries, including food and beverage processing lines, construction, water and waste-water management systems, power generation and transmission, refrigeration systems etc. In the food and beverage industry Saigon Technology produces processing lines for meat and sausage, animal foodstuff, coffee, candy, filling and packing machines in beverage, freezers (Saigon Technology, 2011).

International manufacturers

Chungha Machinery – Korea (fishery)

Website: <http://www.chamco.co.kr/chung/index.aspx>

Chungha is a South-Korean based company that provides various machinery and equipment in fish processing lines such as equipment in washing, weighing, deheading, slicing, skinning, filleting and deboning. The equipment is ranging from semi-automation to full-automation with multi-functional applications. Chungha's equipment is suitable for small and medium size processing lines. The equipment is also designed for use of tuna, squid and other fisheries products. The products of this company are distributed through Asian Machinery and Equipment Pte (AME Pte), (Chungha, 2011).

Anritsu Industrial Solutions Co., Ltd. – Japan (fishery and meat)

Website: <http://www.anritsu-industry.com/en/>

Anritsu is a Japanese company with 44 years of experience. The company mainly focuses on inspection and weighing equipment and solutions. Anritsu is well known with its contaminant detection products (x-ray inspection and metal detection), weight grading system, weight inspection and automatic weighing products. Anritsu also develops and integrates its solutions together to provide multi-functional equipment. Anritsu's products are regarded as high quality and expensive among Asian manufacturers. Anritsu equipment is distributed through AME Pte (Anritsu 2011). Utxico, Fimex used this company's products (Anritsu, 2011).

Marelec (fishery and poultry, red meat)

Website: <http://www.marelec.com>

Marelec is a German company with extensive experience in the fishery processing field. Marelec also manufactures equipment for poultry, meat and vegetable. With the density of offices and agencies in all continents Marelec provides equipment in weighing, check weighing, grading, portioning, labeling and other software. Marelec products are high range and expensive compared to Asian products. In Vietnam market, Marelec has agency namely Phu Loc Technologies in Ho Chi Minh city (Marelec, 2011).

Baader – Germany (fishery and poultry)

Website: <http://www.baader.com/>

Baader, a company from Germany, has a full range of processing lines in fish and poultry industries. The company provides the range from individual equipment to complete processing solutions. In the fishery segment Baader has equipment for grading, deheading, gutting, integrated deheading and gutting machine, filleting machine, skinning machine etc. In the poultry industry, Baader provides full processing lines from live-poultry to slaughtering, cutting, portioning, deboning, skinning and batching and packaging. Like Marelec and Marel products, Baader products are very high quality and expensive. Baader uses the representative office of John Bean Technologies Hong Kong Limited as its representative office in Vietnam (Baader, 2011).

Rex Technology - Austria (further processing)

Website: <http://www.rex-technologie.com/>

Rex is an Austrian based manufacturer in further processing of meat. Rex products include vacuum filler, grinding system, minced meat portioning line, and sausage making. Rex also produces spare parts, accessories and attachments for those machines. Rex has offices and dense agency network worldwide. Rex sells its equipment in Vietnam through its agency Pho Loc Technologies (Rex Technology, 2011).

Mesutronic – Germany (Metal detection in fisheries and food products)

Website: <http://www.mesutronic.de>

Mesutronic is a German company focusing on detection of contaminants in food. Mesutronic integrates belt conveyor in their detecting machines. Mesutronic detectors are not designed with up to date X-ray solution thus reduces the cost for buyers. This company co-operates with AME Pte Vietnam to distribute its products (Mesutronic, 2011).

Meyn Processing Solutions (poultry)

Website: <http://www.meyn.com/>

A Netherlands based company with offices and agencies in more than 90 countries in the world. Meyn is specialized in manufacturing poultry processing equipment and solutions. With its advanced products, Meyn provides full and comprehensive processing lines in poultry industry from live-bird handling, slaughtering, cutting, deboning, weight checking to packaging and dispatch. In addition to the main products for processing, Meyn also manufactures other accessories and further processing equipment to meet the various market demands. Meyn has agency in Vietnam called Euroasiatic Jaya P.T in Ho Chi Minh city (Meyn, 2011).

Linco Food System (poultry)

Website: <http://www.lincofood.com/>

Like Meyn, Linco Food System has comprehensive poultry processing lines from live-bird to end-line products. Linco was acquired by Baader Germany.

The acquisition has enhanced Linco to become advanced and provide competitive poultry solutions and equipment in the world. Linco and Baader use the same representative office in Vietnam (Linco, 2011).

Rieckermann corporations (meat, fishery and further processing)

Website: <http://www.rieckermann.com/>

Rieckermann has its headquarters in Germany. This company operates in many business sectors such as pharmaceutical industry, metal processing, ceramic and building material, environmental and food processing industry. In the food processing sector, Rieckermann operates in meat, fish, fruit vegetable bakery and dairy processing. The main products in meat processing (or further processing) are grinder, bowl cutter, vacuum sausage filler, sausage line components, forming machines, frozen meat flaker etc. This company also provides machinery and equipment for the fish processing industry such as freezing plants, forming and breeding or cooking and smoking installations. Rieckermann has two representative offices in Vietnam, Hanoi and Ho Chi Minh city (Rieckermann, 2011).

Other products from Asian manufacturers (distributed through agents or a distributor)

Asian Machinery and Equipment Pte (AME Pte).

Website: <http://www.ame.vn/home>

AME Pte is a dynamic distributor in Vietnam acting as sales agent and distributor for many manufacturers from EU, US, Japan, South-Korea, Taiwan and China. Products supplied by this distributor are various and it depends on each individual case and orders from processors (AME Pte, 2011).

Quang Trung Distributor

Website: <http://quangtrung.eu/>

This distributor provides various ranges of equipment in the food processing industry including meat grinding, labeling, freezers, drying and smoking equipment, kitchenwares. Most of the equipment distributed by this company is from China, Taiwan and Thailand. Target customers are small and medium scale processors in food and the beverage industry (Quang Trung, 2011).

Incom

Website: <http://incomjsc.com/>

Incom is web-based company supplying equipment in sausage making, meat ball machine, slaughtering equipment, instant noodle processing lines, machinery in plastic industry. Most of these products are from China, Taiwan and Thailand (Incom, 2011).

Hoa Nam Import and Export

Website: <http://www.hoanam.vn/>

Hoa Nam imports machinery and equipment from China. Products imported are cooling and heating equipment in food processing, packaging, candy and beverage processing lines, building materials, machinery in pharmaceutical and plastic industry (Hoa Nam, 2011).

4.3.3 SWOT analysis for Marel in Vietnam

Strength

- Marel is large multinational company with subsidiaries in more than 30 countries and over 100 agents and distributors globally. Marel is well-known and is among leading companies internationally in providing advanced equipment and solutions for the food processing industry in the world.
- Marel has its production facilities in many countries and can benefit from low cost production with one of its manufacturing center based in Slovakia.
- Recent acquisition of two brands, Stork and Townsend, has leveraged Marel to compete better in poultry and further processing industry (canned, fried, cooked, coated, formed products, sausages, steaks, etc).
- Marel can provide various advanced solutions and equipment that suit the increasing demand of the market in fishery, poultry, meat and further food processing industry.
- High quality products are produced that can last for many years.
- Pro-active response to the market.
- Experience in the international market and with competition.
- Access to key persons in fishery industry and good reference.

Enhance strengths:

- Shift production to low cost labor countries with necessary skills (increased labour productivity).
- More R&D in its current markets.
- Diversify investment and reduce financial risks.

Weakness

- Prices of equipment and solutions are high as compared to local ones especially in emerging markets like Vietnam.
- Marel may not yet be well known in Vietnam.
- Low marketing/media coverage, marketing tools. Marel has not had official or intensive marketing activities in Vietnam.
- Limited market research in fishery, poultry, meat and further processing in Vietnam.
- Lack of sales force due to limited staff at the current representative office.
- Low sales revenue and current operations are still not profitable.
- Operation and sales still relies on Thailand office.
- Headquarters are far from the market which leads to less intensive and comprehensive understanding and relations with potential customers.
- All of marketing tools e.g. DVDs, brochures, leaflets, website are in English, not Vietnamese.
- Marel is currently not well suited to provide advice to potential clients about funding options. This is especially true for large scale processors who want to invest in capital intensive equipment requiring medium or long term funding.
- Mare has so far not provided comprehensive solutions to processors in Vietnam.

Minimize weakness:

- Restructure and strengthen the operations in Vietnam.
- Continue investigating and approaching Vietnamese customers.
- Provide advice on possible funding solutions and use the services of ECAs, where Marel has production facilities, in cooperation with local and international banks – Marel is not in the business of lending to processors but can act as a facilitator in identifying solutions.

Opportunities:

- Vietnam is a growing economy. Real GDP growth was 6.8 percent in 2010 (World Bank, 2011a) which is a very healthy post crisis growth rate.
- Vietnam has already graduated from a low income economy to a low middle income economy according to World Bank Group classifications.
- Increasing quality and hygienic standards in fisheries products from high income markets like USA, EU, and Japan. Marel equipment can help meet those strict quality demands.
- Improving business and investment climate in Vietnam, for example, according to the World Bank's Doing Business report (World Bank, 2011d).
- The Vietnamese Government currently gives priority to fisheries and livestock production and export activities. This encourages Vietnamese processors to expand their business and investment (World Bank, 2009). The government is likely to continue improving the business and investment environment for those sectors in the future.
- Growing aquaculture industry (FAO, 2010).
- The Ministry of Agriculture and Rural Development (MARD) through its 2020 strategy targets the fisheries sector to account for 30-35 percent of "agriculture, forestry and fisheries" by 2020; and a growth rate of 6-7 percent in fisheries production value is targeted for the period 2011-2015 (Royal Embassy of Denmark, 2010, p. 16).
- The Vietnamese fisheries sector is taking initiatives in sustainable development and is expanding in aquaculture. Many processors have their own supplying farms (e.g Vinh Hoan & Hung Vuong – pangasius; Minh Phu & Utxico – shrimp). This helps processors be more pro-active in raw material supply and increase their production capacity (Sacombank, 2010).
- Vietnamese process processors/exporters are more and more conscious about international competition where high quality and strict hygiene standards are required. And they are aware of the benefit of modernizing their processing equipment to compete better in international market.
- Automation in processing is more and more demanded to meet high international quality standards and as salary costs rise as Vietnam moves towards an upper middle income economy and eventually to high income status.

- There are more and more pangasius exporters benefit zero (0) percent exporting tax rate to USA market. This facilitates and encourages Vietnamese pangasius exporters increase export volume and value.
- Marel targets to pangasius processors and most of them are key players in the international market which means they have capacity to buy advanced and expensive equipment. This is especially true if they can be provided with longer repayment periods.
- Livestock production is estimated to grow 61 percent in the next 10 years thus enhancing further processing in that important segment in Vietnam (World Bank, 2009, p. 21)
- Consumers increasingly intend to buy food (including convenient food e.g. cooked, canned, packaged) in supermarkets and shops. This fact leverages further processing from raw and fresh materials (GAIN, 2008, p. 14).
- Reduction in import taxes since Vietnam joined WTO and further integration globally as well as regionally.
- Benefit from low tariff rate within ASEAN countries (Free Trade Area) for the freezing products that Marel currently produces in Singapore. And if Marel shifts some further productions to ASEAN.
- Low tariff rate (0 percent import tax and 5 percent VAT for meat and poultry processing equipment²⁸, 1 percent import tax and 5 percent VAT for scales for continuous weighing of goods on conveyors²⁹)

Threats

- Red tape, bureaucracy and corruption remain high in Vietnam. This is a concern, and creates difficulties and complications when doing business, including less transparency.
- Vietnamese culture is hierarchal and it is not easy to approach key persons or decision makers (especially if these persons are high rank authorities).

²⁸ Reference from the website of Vietnam customs, HS Code: 84385011
<http://www.customs.gov.vn/English/Lists/Tariff/Details.aspx?TariffId=17331&Source=http://www.customs.gov.vn/English/Lists/Tariff/Search.aspx%3FSearchValue%3D843850>

²⁹ Reference from the website of Vietnam customs, HS Code: 84232010
<http://www.customs.gov.vn/English/Lists/Tariff/Details.aspx?TariffId=17801&Source=http://www.customs.gov.vn/English/Lists/Tariff/Search.aspx%3FSearchValue%3D84232010>

- Vietnam is a communist single party country and in spite of moving towards a market economy political risks are still an issue as demonstrated by the risk ratings of ECAs.
- Low intellectual and investor protection.
- Competition with copycat products and cheap products locally manufactured and/or imported from China, Taiwan, Thailand, etc.
- Depends too much on fishery industry.
- Some processors still lack raw material.
- Vietnamese fisheries products are still coping with sensitive issues regarding quality control and price dumping accusation in international market. E.g. tensions in business relations with the USA with pangasius export may reduce export to that key market.
- Low and non-comprehensive practice of disease prevention in aquaculture may lead to severe decrease in fisheries production.

Avoid threats:

- Utilize the existing relationships with local authorities and customers.
- Tighten relationships with key persons/authorities.
- Conduct more market research including livestock sector.

4.4 Preliminary conclusions, operational suggestions and rationale for further case study

4.4.1 Conclusions for the market research

Among the aims of this thesis is to help Marel broaden and hopefully somewhat deepen its understanding of the fisheries and livestock production industries in Vietnam. As explained in the preliminary conclusion for the livestock sector this thesis focuses mainly on the fisheries processing industry where the target group is the largest fisheries processors/exporters in Vietnam.

Based on recent secondary data, primary information i.e. responses to a questionnaire during phase 1 from key processors and email exchanges with relevant persons in the industry, the thesis shows a firm and continuous development in the fisheries and aquaculture sectors and increasing contributions to the economy of Vietnam. The fisheries and aquaculture sectors are targeted to account for 30-35 percent

of agriculture, forestry and fisheries³⁰ by 2020 (in the contribution to GDP of this group); and they are targeted to have a growth rate of 6-7 percent in fisheries production value for the period of 2011 to 2015 (Royal Embassy of Denmark, 2010, p. 16). Vietnam's fisheries and aquatic product exports have increased considerably in recent years becoming a major income earner and one of Vietnam's major export commodities. Fisheries and aquatic products earned USD 3.36 billion in 2006, USD4.50 billion in 2008 and USD5.03 billion in 2010. Total export volume for 2010 was 1,353,156 tons, an 11.3 percent increase over 2009 (VASEP, 2010). In 2011 total export value of the fisheries and aquatic sectors (including aquaculture) was USD 6 billion (SeafoodSource, 2011, p. n.p). The number of fisheries processors is increasing and there are more and more key players who are aware of the importance of modernizing the processing lines to compete in an international context.

However, fisheries production value of Vietnam still remains low. The products for export do not generate much value added, many products are just semi-processed. Nevertheless the main export markets are high income countries and these markets follow very strict regulations on quality control, hygienic standards, packaging and labeling issues. In order to compete successfully and increase export earnings, Vietnamese exporters need to increase their value added. They must modernize their processing equipment to meet strict market demands and Marel could be part of the solutions.

In the meantime, the livestock production industry is also discussed to a certain extent in the thesis. Total livestock production in 2008 was more than 3.4 million tons including pork, poultry and meat. The production increase is estimated to continue and reach 5.5 million tons in 2020 (World Bank, 2009, p. 21). However, current livestock production is fragmented, 98 percent of total producers are smallholders and yielded only 65 percent of total production while 2 percent of producers are small and large scale commercial farms yielded 35 percent. Though, these small and large commercial farms were projected to increase their production 308 and 350 percent respectively while small-holders reduce their production 18 percent by 2020 (World Bank, 2009, p. 21). Besides that, the livestock processing industry has not been widely practiced because 86 percent of the Vietnamese consumers are still buying food and every kind of

³⁰ Fisheries is commonly grouped with the agriculture and forestry sectors when the contribution of these sectors to GDP is referred (Royal Embassy of Denmark, 2010, p. 16).

essential nutrition from wet markets where fresh meat is sold after slaughtering. Only small amount of meat is processed (sausages, portioned & packaged meat, canned meat) and distributed in supermarkets. However, such distribution channels like supermarkets, hypermarkets, department stores such as, Big C, Metro Cash & Carry, Fivimart, Hapromart grow by 20 percent in the period of 2008 – 2012 (GAIN, 2008, p. 5). This also will encourage further processing for livestock products e.g. steaks, packaged meat, canned food, sausages etc. when they are distributed in these places.

Given the limited data availability this thesis does not cover and or address all the relevant issues in the fisheries and livestock sectors in Vietnam. However, through this research one can see that the fisheries processing industry is expanding rapidly. In addition to that, exporting fisheries products forces Vietnamese processors to modernize their processing lines and have better quality control systems in order to meet required standards and compete more effectively with international competitors. This fact creates substantial opportunities for Marel to provide its equipment and solutions to this market immediately. At the same time, Marel can initiate plans to tap into livestock processing industry in Vietnam. Marel should mainly focus on the fisheries sector now. Selling solutions to the livestock industry should be more a medium and long term goal.

4.4.2 Analysis of possible expansion and operational suggestions for Marel in Vietnam

As mentioned in the theoretical chapter (2) a Multinational Enterprise (MNE) needs to study carefully the most feasible mode/set-up when entering or expanding business in a specific foreign market. The strategy should be in line with the objectives of the company and each MNE may have a different strategy and the mode of entry depending on the specific products or services they provide, their resources, opportunities and constraints in that foreign market. Since Marel Food Systems has already entered Vietnam, this section attempts to discuss the advantages and disadvantages among options/modes or set-up models for Marel's operations in Vietnam. The options/set-up models mentioned in this section come from the ideas of both the thesis author and Marel's senior staff Mr. Sigurjón Elíasson - Marel Regional Manager Business Center and Ms. Harpa Guðfinnsdóttir - International Sales & Service Network Coordinator. One should note that there may not be a clear cut answer to what model of set-up to be used perfectly. No single model alone has complete advantages over all other models and thus Marel Food Systems will need to study this carefully based on their own

knowledge, internal and external opportunities and constraints to make their own decision.

By the time this thesis is written, Marel Food Systems has already been represented in Vietnamese market for about 10 years (since 2002) via a Representative Office (RO) of Marel Food Systems Thailand Ltd. This RO has its local head of representative based in Ho Chi Minh City to implement all RO's activities. This RO is, on the other hand, under the management of Marel Food Systems Thailand Ltd i.e. sales contracts and payments of Vietnamese buyers are handled and reported by Marel in Thailand. According to confidential data provided by headquarters of Marel in Iceland, the value of sales in Vietnam remains very low. During the period of 2005 to 2007 Marel had negative income balance around EUR 40,000 per year. It was estimated to be difficult to reach a break-even in the following years. And thus Marel Food Systems wants to restructure the set-up in Vietnam hopefully to change the situation, increase revenue and market coverage. Various options have been discussed and considered including: closing down the current RO and use an agent in Vietnam for both fisheries and livestock equipment; retaining the current RO and increasing the number of sales representatives; setting up a subsidiary with its own management team (like the model in Thailand); and a regional set-up with three pillars consisting of Front Office Support (sales and service), Back Office (customer supporting functions – in centralized location), Management & Support center (in centralized location).

Working via Agents: This model substantially reduces operational costs compared to the current RO setup since Marel pays an agent based on sales results. It helps Marel have larger market coverage with more sales force. In addition to that an agent with a wide network can provide flexible technical support and has experience both in livestock and fisheries sectors, culture differences etc. Beside these advantages, an agent constitutes disadvantages for Marel e.g. an agent can work for many other suppliers who are competitors of Marel. Therefore there is no intensive focus on only Marel's products. An agent may focus its promotional efforts on the products of the company paying the highest commission and/or easy to sell rather on the company with the better products. This means that Marel has very little control and thus obtain very limited market share including market knowledge. This can slow down the expansion progress and Marel may lose its customers' relations that have been established for about 10 years so far.

Regional set-up with three pillars: This is a newly proposed structure that Marel Food Systems wants to apply for Scandinavian markets³¹ in which: (i) *Front Office Support* is in charge of sales and service. This pillar consists of Sales and Service Unit (SSU Sales), agents, operational function and service in each country; (ii) *Back Office* located in a centralized location in Southeast Asian markets (this location could be Thailand or Singapore), this pillar consists of customer supporting functions, facilitating sales & service processes with administration, co-ordination and internal handling of the order process/flow, IC industry support, marketing activity, service management, spare part handling center; and (iii) *Management & Support* in a centralized location. This pillar has typical overhead functions needed to manage resources, support financial internal & external reporting, systems and facilities. And it has a strong function to improve operational excellence in the regions consisting of multiple smaller SSUs.

According to Marel, this model could work well in Scandinavian countries and it may save overhead costs and flexibly mobilize technical people as needed. Obviously this model looks fancy and it may work (according to Marel) in Scandinavian markets. When one looks at the world map of Marel one can see that the SSUs of Marel are very dense in Scandinavian countries, it may make sense for Marel to set up regional structure there where the markets are mature, and geographically close to each other. However, one may doubt if this model is really appropriate in emerging markets especially Southeast Asia including Vietnam at this stage where the markets are still immature; intensive management and assistance are still needed on the ground. In emerging markets including Vietnam the market knowledge and customer relationship is a vital issue that needs to be focused on deeply and locally with more intense, strong and active presence in the market. Once Marel has built a stronger brand image, gained larger market share, more customers' trust and network, and local human resource capacity is more trained and improved then a regional set-up may be suitable and effective.

³¹ According to Ms. Harpa Guðfinnsdóttir - International Sales & Service Network-Coordinator – this structure is currently proposed to be applied in Scandinavian markets where the back office and management is in Denmark and sales and service offices are in Norway, Iceland, Sweden, Faroe Islands, Finland and Greenland. This can potentially save overhead costs. For example it includes the possibility of moving service and software technicians between countries based on ongoing projects (email from Harpa Guðfinnsdóttir dated March 6, 2012).

Based on the market research, the characteristics of doing business in Vietnam and the analysis of fisheries and livestock industries in Vietnam, a set-up of subsidiary company is the first model to recommend to Marel Food Systems by the thesis author. And the second model is to remain the current representative office in Ho Chi Minh City but increase the number of sale representatives. Here below is the analysis of these two recommended expansion models for Marel in Vietnam including preliminary cost estimates.

Subsidiary in Vietnam: This is a subsidiary wholly owned by Marel Food Systems and it would be similar to the existing one in Thailand with its own management teams including sales and marketing departments with localized marketing tools (parts of website, brochure, catalogs etc. in Vietnamese), accounting, and independent management budget.

Advantages of subsidiary model:

- Subsidiary model allows decentralized management which means subsidiary has its own management team. A subsidiary will be responsible for its own profit and losses and thus the staff will be more responsible and more committed to what they are doing. This will make them more sales driven.
- Subsidiary is a legal and operating entity in which it can engage in revenue generating activities, such as trading, rendering professional services, revenue collection, invoicing and other official sales activities.
- In terms of intellectual property right protection a subsidiary can officially register intellectual property regarding company's products and technology for their parent company and has its own intellectual property rights. Whereas a representative might be able to register intellectual property but it has no intellectual right of its own. This is critically important issue for Marel since Marel invests intensively in its technology while copycat issue is common problem in Asia including in Vietnam. Additionally, Vietnam joined WTO in 2007 under which it is obliged to protect the intellectual rights of foreign investors and subsidiary model is much closer to investment form compared to representative office since it is legal entity, generates more jobs for local people, pays corporate income tax etc.
- Being a separate legal entity the subsidiary has its full functions, accounting, sales and marketing departments and thus a subsidiary can act and focus more

intensively and comprehensively in its sales and marketing activities with its localized strategy and marketing tools. And thus it creates a more intensive and stronger presence in Vietnam.

- It helps Marel gain more market experience and knowledge quicker, especially as compared to a model of working via an agent. Marel has full control over its products and its target customers. In a longer run, Marel can take over Stork (currently sold through agent called Peja).
- Management and sales team is more dynamic, quicker decision making and more able to focus and tailor into details of the fisheries and livestock industries. This will help Marel convince its customers purchase comprehensive solutions instead of selling piece-meal solutions like it does now.

Disadvantages of subsidiary model:

- Higher operational costs as compared to the existing set-up (representative office). The income statement is likely to be continuously negative for a period of time, possible with low profit in the some first years.
- Takes time to settle down everything and get it run as expected.
- A subsidiary has to pay corporate income tax in Vietnam.

Structure and estimated costs

Cost estimates are very preliminary and some costs e.g. office facilities like tables, computers, telephones, printers etc. are not included as Marel can probably re-use the existing ones.

At the early stage of expansion numbers of employees should be minimized and should be strengthened gradually as the business grows. In a long run this subsidiary should take over the Stork brand from an agency in Vietnam. By doing this Marel can centralize its business in the fisheries and livestock activities and create a more concise and comprehensive operational management of these two brands in the Vietnamese market and freezing equipment production in Singapore. The structure of this option is described as in figure 4.9. This concise structure is designed with the aim to minimize the operational costs and an employee is supposed to handle various tasks

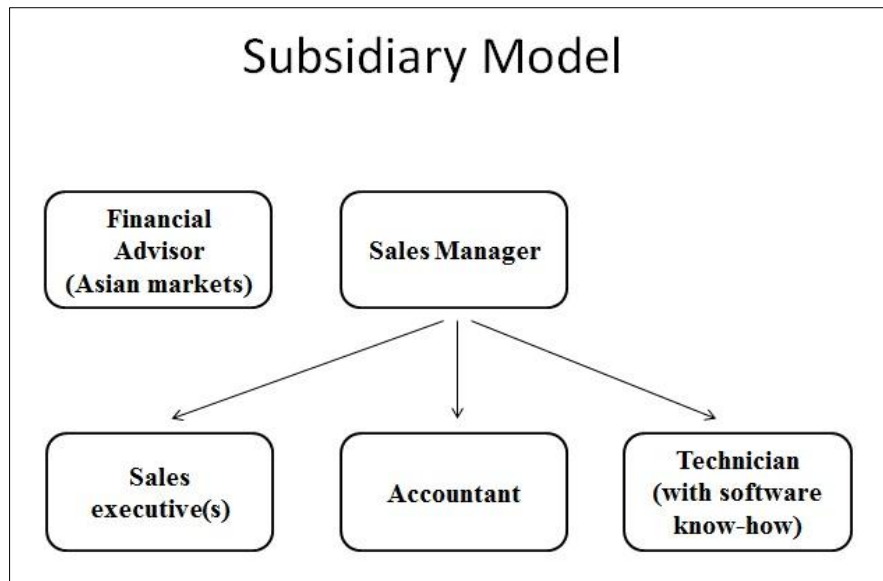


Figure 4.9. Subsidiary company structure

Descriptions

Below are outlines of main tasks handled by each position.

1. **Sales Manager/General Manager – 1 person** (country based) in charge of:
 - Operational and sales plans in the Vietnamese market.
 - Key contact in charge of business development and sales activities.
 - Focus on sales of Marel and Stork equipment and freezing equipment produced by Marel in Singapore.
 - Key contact with processors.
2. **Financial Advisor – 1 person** (Vietnam or Thailand based, serving all processors in the whole Asian market):
 - Provide potential customers/processors with financial advice, including funding solutions/options (financial solutions would require cooperation with Export Credit Agencies (EACs) and Banks (local and international)).
 - Acting as key contact and coordinator within Marel offices in Asia and Asian processors regarding to financial solutions.
 - Face to face visit and present financial instruments/solutions to very likely customers.
3. **Sale Executive – 1 person:**

- Assisting sale manager in most projects.
- Initiating entry into the livestock sector and investigating more the potential food processors.
- Executing all essential marketing activities.
- Assisting office and administration works when needed.

4. **Accountant – 1 person:**

- Accounting works.
- Administration works/ office clerk.
- Assisting sale and marketing activities when needed.

5. **Maintenance/ service man – 1 person** (part-time employee):

- In charge of all maintenance or installation services.

Costs estimated: Note that apart from monthly salaries, employees should be rewarded with sales commission.

Table 4.8. Monthly costs estimated for subsidiary company

Category	Description	Cost varies from (minimum)	to (high average)
HR	Sales Manager	USD 2,000	USD2,500
	Financial Advisor*		
	Sales Executive	USD 800	USD 1,000
	Accountant	USD 500	USD 700
	Maintenance**		
Office cost	Space rental*** (about 70m2), internet, electricity	USD 1,350	USD 1,350
Others	Site visits, transportations, meals, gifts etc.	USD 500	USD 1,000
Total	In USD	5,150	6,550
	In EUR € (1USD = 0.764601EUR) ³²	3,937	5,008

(*) This position might not be filled immediately. Moreover, if this position serves the whole Asian market, the cost should be spread among all Marel offices in these markets.

³² Exchange rate on April 10, 2012.

<http://www.xe.com/ucc/convert/?Amount=6550&From=USD&To=EUR>

(**) According to Mr. Sigurjón Elíasson – Marel Regional Manager Business Center, this position is at very minimum cost, yet it is part-time job so it is subject to be included later on and on a case by case basis when service is needed.

(***) Location of Marels Office should be in Ho Chi Minh City. It will be very convenient to meet partners and/or travel to surrounding provinces, candidates more willing to work in the City. It must not be at central districts like dist1, 3 as space rental cost is usually high in these two districts. To minimize the rental cost, office building type B or C is recommended (type A \approx 34 USD/m²; type B \approx 19USD/m²; type C \approx 16USD/m²). This estimated cost for office rental is type C (VnExpress, 2011).

Representative Office: A representative office (RO) is one of the most popular forms of set-up for foreign companies to establish a business presence in Vietnam. RO is usually the most cost-effective way for foreign companies to investigate the local market before they decide to expand their operations. A RO can conduct market research, public relations, customer liaison and support can be undertaken. A RO is generally easy to establish, but is the most restrictive form of official presence in Vietnam. In contrast to subsidiary a RO is regarded as a commercial liaison office and not an operating entity, it is strictly prohibited from engaging in any revenue-generating activities, such as trading, rendering professional services, revenue collection etc.

Advantages of RO:

- According to Decree 72 (commercial law of Vietnam), a RO can do: (i) business promotion; (ii) identification, accelerating the trade opportunities in Vietnam; (iii) supervising the implementation of contracts signed between its parent company represented and local partners. So Marel can still promote its business to a certain extent (Decree 72/2006, 2006).
- It is the most cost-effective way for Marel to create market presence in Vietnam and Marel is familiar with this set-up.
- A RO is not liable to corporate income tax in Vietnam since it doesn't officially generate revenue. (However its staff is liable to personal income tax).

Disadvantages of RO:

- The main disadvantage is RO is the most restrictive form of official presence in Vietnam. It is prohibited from engaging in any revenue-generating activities, such as trading, rendering professional services, revenue collection. It is not responsible for its own profit and loss accounts as a subsidiary is and thus it is less committed and less effective than a subsidiary.
- Only focuses on Marel brand/fisheries sector not Stork brand (livestock).
- Lack of sales forces and market coverage. Marel might not be able to make a big change in its business performance. In other word, Marel might continuously have a negative income statement.
- Costs for salaries may not even reduce due to the increase in number of representatives. Also because a qualified employee may negotiate higher salaries when he/she is asked to handle too many works.
- It may slow down the progress and strategic expansion of Marel in Vietnam.
- Distracts the operation of Marel in Thailand.

Figure 4.10 is the structure of RO. The rationale for this option is that Marel can still have full focus and control on Marel brand. However, this option is not likely to last for long as competition is high among other international brands in Vietnam. The indications shown in the market analysis chapter of this thesis suggest that Marel should have an official and intensive operation as early as possible in the Vietnamese market. However, for this second option, useful marketing tools, such as company's website, brochure, catalog, flyers etc. and activities also should be localized and implemented.

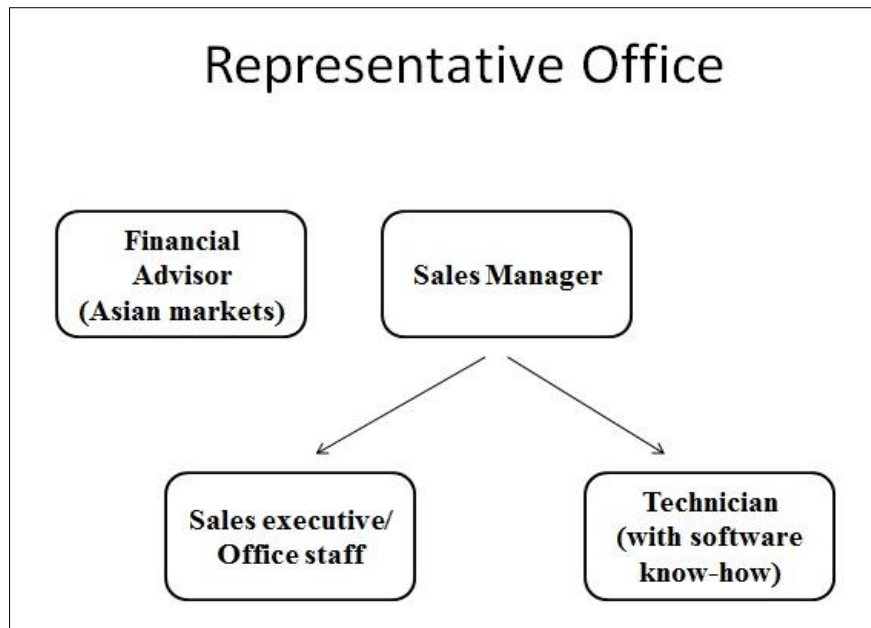


Figure 4.10. Representative office structure

Descriptions

This structure is more or less similar to the existing set-up that Marel currently has in Vietnam but number of sales representative should be increased. However, it is recommended that Sales Manager should be more dynamic and proactive in identifying trade opportunities and implementing promotional activities. The sales manager should be dedicated to sell more comprehensive solutions instead of focusing on piece-meal solutions. In order to do so, the sales manager needs to be more competitive and well trained with the know-how technology of Marel's products. Some marketing tools and plans should be localized. In order to maximize the effectiveness it is recommended that a Sales Executive should act as sales based employee with frequent site visits/ approach (along with Sales Manager) and also in charge of administration works.

Costs estimated: Note that apart from monthly salaries, employees should be rewarded with sales commissions.

Table 4.9. Monthly costs estimated for representative office

Category	Description	Cost varies from (minimum)	to (high average)
HR	Sales Manager	USD 2,000	USD 2,500
	Financial Advisor*		
	Sales Executive & Office staff	USD 800	USD 1,000
	Maintenance**		
Office cost	Space rental*** (about 70m2), internet, electricity	USD 1,350	USD 1,350
Others	Site visits, transportations, meals, gifts etc.	USD 500	USD 1,000
Total	In USD	4,650	5,850
	In EUR € (1USD = 0.764601EUR)³³	3,556	4,475

(*) This position might not be available immediately. Moreover, if this position serves for the whole Asian market, the cost should be spread among all Marel offices in these markets.

(**) According to Mr. Sigurjón Elíasson – Marel Regional Manager Business Center, this position is at a very minimum cost, yet it is part-time job so it is subject to be included later on, and on a case by case basis when service is needed.

(***) Location of Marel Office should be in Ho Chi Minh City. It will be very convenient to meet partners and/or travel to surrounding provinces, candidates more willing to work in the City. It must not be at central districts like dist1, 3 as space rental cost is usually high in these two districts. To minimize the rental cost, office building type B or C is recommended (type A \approx 34 USD/m²; type B \approx 19USD/m²; type C \approx 16USD/m²). This estimated cost for office rental is type C (VnExpress, 2011).

³³ Exchange rate on April 10, 2012.

<http://www.xe.com/ucc/convert/?Amount=6550&From=USD&To=EUR>

4.4.3 Rationale for further case study

In this chapter, the Vietnamese food processing market is researched and analyzed. In addition to that the two options above regarding set-up models are also analyzed to answer the first research question: *“Is it feasible for Marel to expand its operations in Vietnam and, if so, what is the most feasible mode of expansion?”*

Based on the marketing research the conclusion is that it is feasible for Marel to expand in the fisheries sector now and possible in the livestock sector in the medium and long term run. Regarding the mode of expansion, each option has its own advantages and disadvantages. There is a common position in both options which is the Financial Advisor. As described earlier, one of the main tasks of this position is to advise and propose financial and funding options or solutions from a menu of instruments and products offered by ECAs for Marel and its clients in emerging markets. This will help Marel to mitigate the risks, gain advantages over other competitors, and facilitate its clients dealing with their financial constraints and/or difficulties in their investment decisions.

In order to understand exactly what ECAs provide and what constraints and difficulties of Vietnamese processors are in making investment decisions the author of this thesis implemented an in-depth multiple case study. The case study included a field trip to interview the selected pangasius processors/cases in Vietnam and the ECAs in Asia and Europe. The next chapter (5) will report, analyze and assess the selected cases as well as the financial instruments offered by ECAs and provide answer to the second and third research questions: *“How can Marel, as an exporter, and the Vietnamese processors, as importers use the financial services and risk mitigation instruments offered by ECAs?”* and *“Is the use of those financial services and risk mitigation instruments feasible for Marel and the processors as compared to the current funding mechanism?”*

5. Case study report, scenario analysis, and success stories

This chapter provides a brief introduction to the four selected cases and summarizes findings among them from in-depth interviews. Then it analyzes these findings based on the three scenarios built in methodology chapter (3) to answer the research question that how Marel and its clients in emerging markets can utilize financial instruments offered by ECAs. The last section of this chapter provides success stories in which ECAs' relevant instruments were used in emerging markets.

5.1 Case selection and the introduction of the four cases

As mentioned earlier in the methodology chapter of this thesis, four companies who all are among the largest pangasius processors in Vietnam were selected for case studies. Before a decision was made on what cases/companies should be selected, discussion between Marel Food Systems, the thesis author (the student) and the thesis supervisor took place. The sales representative of Marel in Vietnam was consulted and he provided advice on what companies should be selected for the case studies. The processors should meet the following selection criteria: (i) be a pangasius processor; (ii) be large and have high annual export value (from USD 15 million to USD 100 million according to VASEP's ranking); (iii) be among processor identifying funding as a constraint in modernization; and (iv) be willing to participate in this research by granting interviews. Based on these criteria the four companies selected are: Anvifish, Agifish, Bianfishco, and Docifish. The next section will briefly introduce these four companies respectively. The author of the thesis managed to visit all these companies in Vietnam in November 2011 and interview them.

Case 1: Anvifish (www.anvifish.com)

Key highlights in 2010:

- 3rd largest pangasius exporter in Vietnam
- Export volume: 24,705 tons
- Export value: USD 61.729 million

Anvifish (Anvifish Joint-Stock Company) is located in An Giang province in Mekong Delta area (south of Vietnam). This company is specialized in processing and exporting frozen aqua-cultural products and the main products of Anvifish is frozen pangasius

fillet, other value added products, such as fish balls, skewers, breaded fillet etc. Anvifish exports its products to high income markets in the world, such as EU (47.07%), USA (23.65%), and Australia (13.91%), (Anvifish, 2010). In 2010 Anvifish exported 24,705 tons of pangasius and export value was USD 61.729 million, accounted for 4.32% of total export value in pangasius of Vietnam. It was ranked the third largest pangasius exporter of the year (VASEP, 2010)³⁴.

Anvifish has two production facilities with processing capacity of 200 tons of raw material per day and 8 chains of IQF freezer with 500kg material per hour and 8 frozen cabinets with capacity of 4,000kg material per hour. In addition to that, Anvifish's warehouse has capacity to store 3,500 tons of finished products. By the time field trip was implemented (November 2011), Anvifish shared they plan to expand their business in foodstuff industry for fish.

Case 2: Agifish (www.agifish.com.vn)

Key highlights in 2010:

- 4th largest pangasius exporter in Vietnam
- Export volume: 26,630 tons
- Export value: USD 58.810 million

Agifish has its full name as An Giang Import Export Joint Stock Company. It is also located in An Giang province in Mekong Delta area (south of Vietnam). Agifish focuses its operation on processing and exporting frozen aquacultural products and the main products of Agifish are frozen pangasius fillet, slices and other value added products, such as fish balls, skewers, breaded fillet etc. According to their response to a questionnaire they target their pangasius products to high income markets including USA (30%), EU (25%), and Australia (10%). In 2010 Agifish exported 26,630 tons of pangasius and export value was USD 58.810 million, accounted for 4.12% of total export value in pangasius of Vietnam. It was ranked the fourth largest pangasius

³⁴ VASEP keeps recording the export volume and value of all Vietnamese fisheries export products annually. In pangasius category VASEP records and ranks the first top 100 exporting companies (also are the processors in most of the cases). In 2010, the largest pangasius exporter (Vinh Hoan company) achieved 42,637 tons in volume and USD 126.443 million in value, accounted for 8.86% in the total export value of Vietnam pangasius; the smallest exporter in the same year was Duy Dai company who achieved 1,168 tons in volume and USD 1.385 million, accounted for 0.10% total export value. While the rest of other exporters who were not in the top 100 companies accounted for 2.80% in total export value and 40,030 tons in volume of the whole pangasius category (VASEP, 2010).

exporter of the year (VASEP, 2010). Besides that, Agifish also produces aquatic veterinary medicines.

Case 3: Bianfishco (www.bianfishco.com)

Key highlights in 2010:

- 7th largest pangasius exporter in Vietnam
- Export volume: 17,545 tons
- Export value: USD 43.943 million

Bianfishco (Binh An Seafood Joint-Stock Company) is located in Can Tho province in Delta Area (in the south of Vietnam). Core business of Bianfishco is processing and exporting pangasius fillets and other pangasius value added products like fillet slices, skewers, fish balls etc. Bianfishco has their own fish farming sites with total area of 40 hectares. Bianfishco can supply themselves with raw material from the two fish farming sites with capacity of 30,000 tons per year. Beside this core business Bianfishco also produces collagen drinks and operates a research institute about pangasius, such as genetics, selecting and producing breed, feed mill, water treatment and diseases prevention etc. In 2010 Bianfishco exported 17,545 tons of pangasius and export value was USD 43.943 million, accounted for 3.08% of total export value in pangasius of Vietnam. It was ranked the seven largest pangasius exporter of the year (VASEP, 2010). Bianfishco exports to USA (70-80%) and EU (20-25%) in total of their export volume.

Case 4: Docifish (www.docifish.com.vn)

Key highlights in 2010:

- 25th largest pangasius exporter in Vietnam
- Export volume: 6,810 tons
- Export value: USD 17.250 million

Docifish is located in Dong Thap province. This company also benefits from the Mekong Delta River in their pangasius production. In 2010 Docifish and its two sister companies Domyfeed and Docifarm emerged and Docifish Corporation was born and this new united entity remain their operations in 3 categories: pangasius processing, hatchery and farming, develop protein foodstuff for aquaculture industry in the area. Like other pangasius processors, the main products of Docifish are pangasius fillet, slices, skewers, fish balls etc. In 2010 Docifish ranked the twenty-fifth largest pangasius

exporter and achieved USD 17.250 million in export value and 6,810 tons in volume (VASEP, 2010). The main foreign markets of Docifish are EU, USA, Canada and other Asian markets.

Here below is the summary table of general findings among the four selected cases based on their responses to a questionnaire (see annex 2) sent to them few weeks prior to the field trip. The questions in the questionnaire were also discussed with them during interviews in Vietnam in November 2011 (see annex 4 for the entire itinerary of the field trip).

Table 5.1. Summary of findings among the four selected cases

Questionnaire	Anvifish	Agifish	Bianfishco	Docifish
1. How do you currently fund the purchase of equipment and machinery for your processing plant?	Our own fund: 10% Leasing company: 40% Loan from bank: 40% Our equity: 10%	Any contract less than VND 2 million (USD 96 thousand) we will use our own fund. Any contract more than that we will borrow from banks.	Equipment purchased for three operation categories: pangasius processing, research institute and cold storage is funded by banks (70%) and by us (30%).	Any contract from USD 10-25 thousand, we will use our own fund. Any contract more than that we borrow from banks.
2. If your company borrows from bank, which bank are you currently borrowing from?	BIDV (Bank for Investment and Development of Vietnam), Agri Bank, VietcomBank	In recent 4 years we only been borrowing short term loans (3-6months) and the amount can be up to USD 10 million. These banks are: VietcomBank, ANZ (Australia and New Zealand Banking Group), HSBC (HongKong Shanghai Banking Corporation).	We currently are borrowing from ACB (Asia Commercial Bank – Vietnamese bank) and BIDV (Bank for Investment and Development of Vietnam). In future, we want to work with international bank too, and we think of Stand Charter Bank and a Malaysia Bank (May bank).	We have been working with ACB (Asia Commercial Bank), Vietin Bank, hopefully in future we work with Vietnam International Bank (where an Australian bank – Commonwealth Bank of Australia has 15% share).
3. Are you satisfied with the service you get from your bank? Why and why not?	Generally we satisfied. We been working with them for long time and they usually give us favorable interest rate	Generally we are satisfied. International banks are usually faster in time manner. However, if you have good relations with local bank you can enjoy better interest rate.	Generally we are. We have good relationship with them and they also have good will to help us obtain loan.	Yes, we think they are helpful.

Questionnaire	Anvifish	Agifish	Bianfishco	Docifish
4. What are the procedures and documents required by your bank in Vietnam if you apply for a loan?	Business plan, proposal for loan, collateral documents, legal profile, annual and financial report, etc.	Application forms, project/business plans, company's information such as: operation, financial and annual reports, and the bank will assess the project feasibility.	Basically it includes our project plans, permission for that project from authorities, collaterals documents, financial and annual reports, etc.	Financial and annual report, project plans, purchasing contract with suppliers, invoices, feasibility study if necessary, etc.
5. What are the interest rate/premium you pay currently for VND and USD loan?	<p>Short term: less than 12 months – floating rate.</p> <p>VND: 16% USD: 6%</p> <p>Medium-long term: 5 years: USD: 3-5% per year</p>	<p>Short term – floating rate. VND: 16.5% USD: 4.5% (3 months); 7% (6 months).</p> <p>No idea about long term as not borrow recently</p>	<p>Short term – floating rate VND: 17% USD 6.5%</p> <p>Medium -long term: VND: 19% per year USD: 8% per year</p> <p>(Borrow USD from export and import bank - Exim Bank).</p>	<p>Medium-long term VND: 19% per year USD: 5% per year</p>
6. If you want to borrow from your bank to modernize your processing equipment, what is the maximum repayment period (years) i.e. how long time do you get to repay the loan?	Usually 5 years	As said above, we have not borrowed long term loan recently. But we think usually it should be 5 years.	It depends on each project (how large and capital intensive it is). However we not always wish to borrow for long term due to floating interest rate. Banks usually allow 5 years to repay them.	We have not borrowed long term loan yet but if we do, it could be 5 years – medium long term loan.

Questionnaire	Anvifish	Agifish	Bianfishco	Docifish
7. What are the main problems or difficulties you usually face when applying for loan, if any? Please specify.	Firstly: the amount of loan allocated is lower than we requested Secondly: our collaterals are underestimated compared to the real value	Agifish is concerned about interest rates in general. Yet borrowing activities usually require lots of preparations and efforts which they are not comfortable with.	Some main concerns: Firstly: if bank staff is not an expert in the field, he/she may underestimate our project feasibility. Secondly: if the feasibility study is not high, bank may only provide 50 – 70% of total loan requested.	Basically we don't have any specific difficulties if we do our homework well.
8. Regarding problems you may face when applying for loan, what do you expect from your bank to help facilitate or solve these problems?	Firstly: the allocation of loan should be higher and relevant to the amount we requested Secondly: our collaterals should be fairly evaluated.	Reducing the interest rate.	We expect bank staff to be expert in the field when they do feasibility study thus enhance the possibility of a higher loan allocation from the bank.	
9. How long does it usually take if your company wants to borrow about USD 5 to 7 million? How high would the interest rate/ premium be for this amount of loan currently?	It may take us 15 days (short term loan). And interest rate would be 6%	It depends on a case basis. Usually 1 month is regarded as quick and 3 month is regarded as slow. And for the case of Agifish, as we have good relation with banks so if we want to borrow for short term loans, it may take some days.	Frankly at the moment (late 2011) no banks can lend long term loans. But let's say we can access long term loan, it may take us 2 – 6 months for this amount of loan.	We never borrow any large loan like this so we have no idea.

Questionnaire	Anvifish	Agifish	Bianfishco	Docifish
10. Currently, how long do you have to pay your suppliers (equipment manufacturers) when the equipment is delivered or fully installed? (How many months or years?)	Usually we have to pay within 30 days after all equipment fully installed and checked.	Agifish and its suppliers have been using L/C so far. The payment period is from 2 to 6 months after delivery and installation. Usually Agifish will pay 90% of the total value. The rest 10% will be paid after checking all equipment are working well.	We divide the payment according to installation progress and this depends on what type of equipment. Maximum period can be 8 months.	We have to pay within 30 days. We keep 5-10% for guarantee period (usually 1 year).
11. Do your suppliers (equipment manufacturers) usually offer you an extended credit period in which you can make down payment for longer period? If so, how long? Do your suppliers charge any more fees for this extension? If yes, how much?	Not at all.	Not at all.	Not at all. However it is not always good to extend payment period due to additional associated costs.	No, usually done under the form of L/C and all payment made within 30 days when equipment is fully installed.
12. What are the main constraints when you pay your suppliers?	Most of the time we can only obtain short term loan for investment, lack of cash flows.	When it comes to loan borrowing, we are concerned with interest rates and relevant works required.		In general we don't have any problems with foreign suppliers.

Questionnaire	Anvifish	Agifish	Bianfishco	Docifish
13. What do you expect from your suppliers to ease the payment for the contract?	We expect them to extend the payment period and we think at least 12 months (in line with insurance period).	Agifish expects to have longer payment period with competitive (low) additional fees/interest rate	For us, a competitive supplier is the one who provides with competitive sales packages and their after sales services. We are interested in learning about any better payment solutions from suppliers.	If our investment is large and suppliers can extend payment period with reasonable costs then it would be good for us.
14. Do your suppliers suggest you to obtain loans from any financial institutions or international banks? If so, do your suppliers help facilitate obtaining the loan?	No, we have not been suggested anything like this.	No, we have not been suggested anything. Except we heard about DANIDA (Danish Government program) some years ago. However, the paper work took long time for them to be able obtain the loan and they gave up.	No, we have not been suggested anything like this. So far, we just have to find our own ways to access to funds.	No we have been suggested anything.
15. Do you currently wish to modernize your processing line? If yes, what specific equipment in the processing lines do you want to modernize?	We plan to buy equipment in producing fish meal (foodstuff), fish powder, value added products, freezing process.	We may think of modernizing freezers (to shorten the freezing process, currently it takes 30 minutes to freeze 1 piece of fish), equipment for slicing, cutting, grading, target batcher etc. However, this is not yet a firm plan.	Yes, we plan to modernize the whole pangasius processing lines. And we need our suppliers to come and advise us on each specific item to innovate and modernize.	Yes, we plan to invest in freezing equipment, compressors, compact graders, auto scale, auto packing.

Questionnaire	Anvifish	Agifish	Bianfishco	Docifish
16. Have you estimated how much this modernization will cost?	It is about USD 8.6 million	It may vary from USD 700,000 – 1 million.	It is estimated around USD 20-25 million	It is estimated about USD 2.3 million
17. Would you be able to fund such modernization given your repayment capacity and access to loans?	No, we think we need to borrow about 60%	It is likely that we will borrow 70-80% from bank.	We need to borrow 85-90% from bank. And this time we want to deal with a foreign bank.	We think we need to borrow 80% of this amount.
18. If you are in need, what kind of financial assistance would be most useful for you?	We may think of selling more equity to raise the fund. And we will also look into other possible solutions to help us.	An extended credit period is useful for us. However, we need to look into the additional cost if it is competitive.	We are willing to talk to suppliers if they can propose any competitive and feasible financial solutions and we will pick the best one.	We expect firstly: lower interest rate, secondly: bank allocates high amount of loan compared to what we requested, thirdly: if suppliers can extend payment period at low/reasonable costs.
Additional information/ follow-up information	Anvifish currently wants to access long term loan from 5-10 years for their investment plans.	If Agifish is offered a longer term for payment by a supplier then it will affect positively their purchasing decision with that supplier.		

5.2 Scenario analysis based on findings from the four cases

As mentioned in methodology chapter (3) three scenarios will be constructed to demonstrate how Marel Food Systems and its clients can use the instruments of export credit agencies to facilitate trade in Vietnam. The construction of these three scenarios was derived from the primary findings during phase 1 of the thesis when Vietnamese processors responded to a questionnaire and identified funding as their main constraint and difficulty in modernizing their processing lines. Further information was then collected during phase 2 when four of the processors were visited in Vietnam and interviewed for the detailed case studies. In addition to that, when visiting and interviewing the export credit agency EKF in Denmark and the ECICS in Singapore they suggested that buyer credit guarantee and supplier credit guarantee would in their opinion be the most suitable solutions for Marel Food Systems and its potential clients in Vietnam. Moreover, given the effects of the global economic and financial crisis, some banks are not in a position to lend money to companies (EKF, 2010), especially if a long term loan is requested, thus a third scenario was constructed which is an export loan. This section will describe in some detail these different scenarios taking the companies selected for the cases as examples.

5.2.1 Scenario 1: Buyer Credit Guarantee

A Buyer Credit Guarantee is basically a guarantee issued by an ECA to a bank that lends money to a foreign importer to pay for an order of goods or services from an exporter in the country where this ECA is located. In emerging economy countries both local and international banks are cautious when they decide to lend to companies. The use and purpose of this guarantee is to help foreign buyers in emerging markets obtain larger loans from international banks, with longer lending term and at lower interest rates. In the interviews with the companies selected for the four cases, they shared the view that obtaining a medium or a long term loan is not easy at the moment (i.e. November 2011) due to the restriction in lending of local state owned banks in Vietnam. Furthermore, according to an email from ANZ (Australia and New Zealand Banking Group) to the author of this thesis the following was stated “At present time Vietnamese based borrowers do not have easy access to international markets beyond relatively short term tenors (up to about 3 years). One of the only ways to access international

markets is with the support of ECAs, where long tenors (in some cases up to even over 10 years) are available in hard currencies.”³⁵

In addition to this, high inflation has pushed the interest rate for medium term lending up to 19% (VND – medium-long term loan³⁶) and 8% (USD – medium-long term loan). On the other hand, one should note that different companies enjoy different interest rates. Both Anvifish and Agifish stated that they could enjoy favorable interest rate due to their good relationship with the banks. Relationship here, as explained by the companies, can be understood as the working experience between the company and the lending bank where the company already has a credit history in the bank. However, it also can be understood as the connection of the company with key contacts in the lending bank especially in stated owned bank. As can be seen in the table 5.1 above that summarizes the results of the interviews from the cases, the four companies stated different interest rates from one to one another both in VND and USD (this is floating interest rate). Bianfishco stated the highest interest rate among the other 3 cases if they want to borrow to fund their investment plan. During the interview in Vietnam in November 2011 they estimated that the modernization of their processing line would cost USD 20 to 25 million. In addition to that, Bianfishco also stated that in the event that their project feasibility study did not get high rating within the bank then the proportion of loan allocation is low, lending bank may only allocate from 50-55% of the total loan request. This can become a very critical problem for a company if their investment plan requires capital intensive solutions. It seems that in this case that a Buyer Credit Guarantee could be an appropriate instrument. As explained earlier a Buyer Credit Guarantee is issued by an ECA to a lending bank when foreign buyer can obtain a loan with better lending terms, including tenor and interest rate. In order to have an ECA involved in any guarantee there must be a relevant national economic interest to the country of this ECA. In this scenario, an assumption is made where Bianfishco would buy processing equipment from Marel and this equipment is manufactured by production facility of Marel in Denmark. The ECA in this scenario is the Danish export credit agency EKF. So how can Buyer Credit Guarantee help to deal with these challenges? First of all, general understanding about this guarantee needs to

³⁵ Antero Ranta ANZ Director - Structured Asset and Export Finance, Ocean Financial Centre, Singapore. Email received on February 25, 2012.

³⁶ Period of medium-long term loan is up to 5 years; and that of short term loan is less than 12 months.

be described. Figure 5.1 below describes how Buyer Credit Guarantee works. There are 6 key steps involved for this guarantee as follows:

(1) Bianfishco (as a foreign buyer/importer) and Marel (as an exporter) have an export contract in which Bianfishco orders processing equipment from Marel production facility in Denmark. Since Bianfishco wants to borrow from a bank where they might be able to obtain loan with better lending terms including longer tenor and lower interest rate to facilitate their equipment purchase, Marel can suggest Bianfishco to borrow money from a bank.

(2) Bianfishco now will apply for a loan to a lending bank. This can be Danish, Vietnamese or any other foreign/international bank who is willing to process the application. Though, it would be better if it is a bank that EKF knows or has done business with before. EKF has experience in working with some banks, especially international banks.

(3) The bank wants to obtain security for the buyer's repayment of the loan by applying for a Buyer Credit Guarantee from EKF since EKF is the Danish export credit agency.

(4) EKF now will assess the buyer's creditworthiness to see if the risks are acceptable. This assessment also includes country risk assessment based on OECD country risk rating. The corporate (the buyer) assessment will be based on the company's background information, including project description and feasibility study, audited annual reports, environmental assessment e.g. social company responsibility etc. (Beck, 2011). Here the EKF is basically collecting information because of the asymmetric information that exists between the buyer of the equipment and EKF. By a careful assessment of the buyers financial situation the probability of adverse selection is reduced. As discussed in the theoretical chapter in this thesis adverse selection is a problem created by asymmetric information before the transaction takes place. This occurs, when the borrower who is least likely to produce a desirable outcome, that is pay back the loan on time, is most actively seeks a loan and thus is most likely to get the loan. When assessing the creditworthiness of the firm, availability of financial reports (international standard and/or audited by an international auditing company) is critical.

(5) After assessing the buyer's creditworthiness and if the risks are acceptable, EKF will issue Buyer Credit Guarantee for the lending bank. Definitely EKF will charge a certain amount of premium against the commercial risk and the non-commercial risk.

(6) Because of the guarantee, the lending bank now is covered against buyer's default in repayment due to commercial or non-commercial risks. And thus the bank now can confidently lend they buyer the requested loan. The bank has a guarantee from a AAA rated agency EKF. The buyer can use this loan to pay for the purchase, but the bank will pay directly to the exporter, in this case Marel.

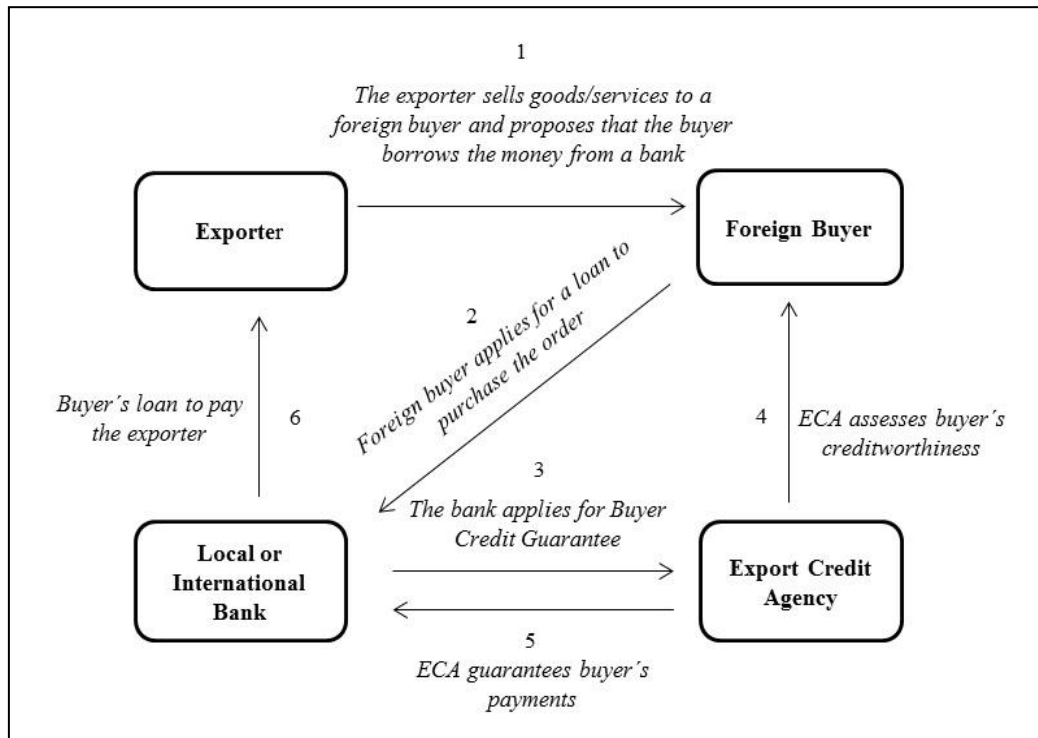


Figure 5.1. Model of Buyer Credit Guarantee of the Danish ECA – EKF

This guarantee is according to the model of EKF and from the description of how this guarantee works above one can see that Buyer Credit Guarantee can facilitate foreign buyer to obtain loan from a bank who initially maybe reluctant to lend due to high political and commercial risks. However, in the case of Bianfishco and Marel one cannot be sure a priori if this solution is feasible or more cost effective as compared to the current lending scheme Bianfishco can get. It should be noted that in this case the foreign buyer will have to pay premium charged by EKF against commercial and non-commercial risks, interest rate for the loan charged by the lending bank and other associated costs. Therefore this analysis cannot assure or verify that that Buyer Credit Guarantee is more cost efficiency or more feasible. The only way to examine this solution is to have EKF and the lending bank officially involved and implements the assessment. However, if Bianfishco can get the guarantee it would be both easier for the company to get the full amount of the loan requested and for longer term than without

the guarantee. Also the interest rate charged by the bank would normally be lower because of the reduced risk given that a guarantee has been issued. EKF who issues the guarantee is an AAA rated ECA backed by the government of Denmark. However, the risk premium to the ECAs and administrative cost must be paid and these costs will depend on the risk assessment, commercial and non-commercial.

The repayment term for a loan with a buyer credit guarantee is up to 8.5 years for countries defined by the OECD as high-income countries, and up to 10 years for all other countries. Normally the foreign buyer is required to make a down payment of a minimum of 15 percent of the order amount/contract value. The credit must also be granted as a serial loan with principal repayments of equal size plus accrued interest. In case the buyer defaults on payment due to commercial or political risks, EKF will compensate 95 percent of the loan to the lending bank and the bank's deductible³⁷ is minimum of 5 percent of commercial and political risks (EKF, n.d. a). However, there will be a waiting period which may last from 3 months to 1 year. The purpose of this waiting period is to see if any other solutions can be materialized. After the waiting period, if the buyer has not been able to make the payment, EKF will proceed reimbursing within 30 days (Beck, 2011).

5.2.2 Scenario 2: Supplier Credit Guarantee

A Supplier Credit Guarantee is a guarantee issued by an ECA to the supplier or the exporter and this exporter can grant the foreign buyer an extended credit period on amounts payable for the order. The supplier or the exporter will be protected against the risk of not being paid by the buyer or the importer due to non-commercial or commercial risks. The exporter can take advantage of supplier credit guarantee to lend the foreign buyers in an emerging market where an extended credit period may be the key incentive for the buyers to select the most competitive supplier over the others. Supplier Credit Guarantee helps the buyer or the importer repay the order in a longer period. In a prior research (phase 1 of this thesis) among 22 largest Vietnamese fisheries processors in August 2011, a questionnaire (see annex 1) was sent out. All of those who answered indicated that they have to pay the supplier within 3 to 6 months after the equipment has been fully installed and checked. And the findings from the field trip (see table 5.1) confirmed again that short term repayment period for the equipment to the

³⁷ Deductible here means the rest amount which is not covered by EKF and therefore the other party has to bear.

supplier is one of their main constraints especially for companies who lack working capital and have difficulty in obtaining loans. This fact also helps explain why Vietnamese processors only bought a small part of the equipment needed from European manufactures and the rest of processing lines were locally made or imported from more affordable Asian manufacturers like China, Korea or Japan. Instead of purchasing comprehensive processing lines they also tend to go for piece-meal solutions. This suggests that if buyers from an emerging market like Vietnam are offered an extended credit period, it may affect their investment decision as they confirmed during the interviews in November 2011. This means that they would perhaps invest in more sophisticated processing equipment on a larger scale than they currently do. From the summary table 5.1 one can see that all of these four cases stated that they had not been offered an extended credit period from any supplier. They have to apply for loans from local banks with high interest rates. Most loans lent to them are both short term loans (less than 12 months) and the amount allocated is far lower than the amount they requested and needed for the intended investment. In this scenario an assumption is also made for the case of Docifish as the buyer, Marel in Denmark as equipment supplier and the ECA is EKF and figure 5.2 below illustrates how this guarantee works. In fact, during the field visit in November 2011 Docifish indicated that an extended loan from the supplier would be useful for them. The process of supplier credit guarantee requires main four steps as follows:

- (1) Docifish makes an equipment order to Marel. Marel understands that Docifish needs an extended credit period for the payment and Marel wants to grant Docifish with a longer payment period than usual.
- (2) Marel applies for Supplier Credit Guarantee from EKF.
- (3) EKF receives the application and assesses the creditworthiness of Docifish. Similar to Buyer Credit Guarantee, EKF implements country risk assessment based on OECD country risk rating and the company (the buyer) assessment based on their background information, including project description and feasibility study, audited annual reports, environmental assessment e.g. social corporate responsibility etc. (Beck, 2011). The assessment of the company relates to commercial risk. Obviously as mentioned in the theoretical chapter of this thesis asymmetric information can be significantly larger in international trade as compared with domestic trade. This is because information about foreign companies is often more limited or less familiar to the supplier or exporter and

his bank than in the case of domestic clients. By assessing the commercial risk the ECA, in this case EKF, can reduce the asymmetric information and improve the quality of the decision making for the ECA and the supplier. This also reduces the probability of adverse selection which is the problem created by asymmetric information before the transaction takes place. This occurs, when the borrower who is least likely to produce a desirable outcome most actively seeks a loan and thus is most likely to get the loan. As always the availability of financial reports (international standard or audited by an international auditor) is critically important.

(4) After assessing the buyer's creditworthiness and if the risks are acceptable, EKF will issue Supplier Credit Guarantee to Marel. Now Marel has security for the payment from Docifish. An AAA rated agency has guaranteed the repayment. In this case, Marel will be charged with a certain amount of premium by EKF based on Docifish's creditworthiness assessment.

Also in this case, Marel and Docifish need to calculate and come up with an agreement on how the premium and other associated costs e.g. interest rate differential are split in the contract or payment terms and conditions.

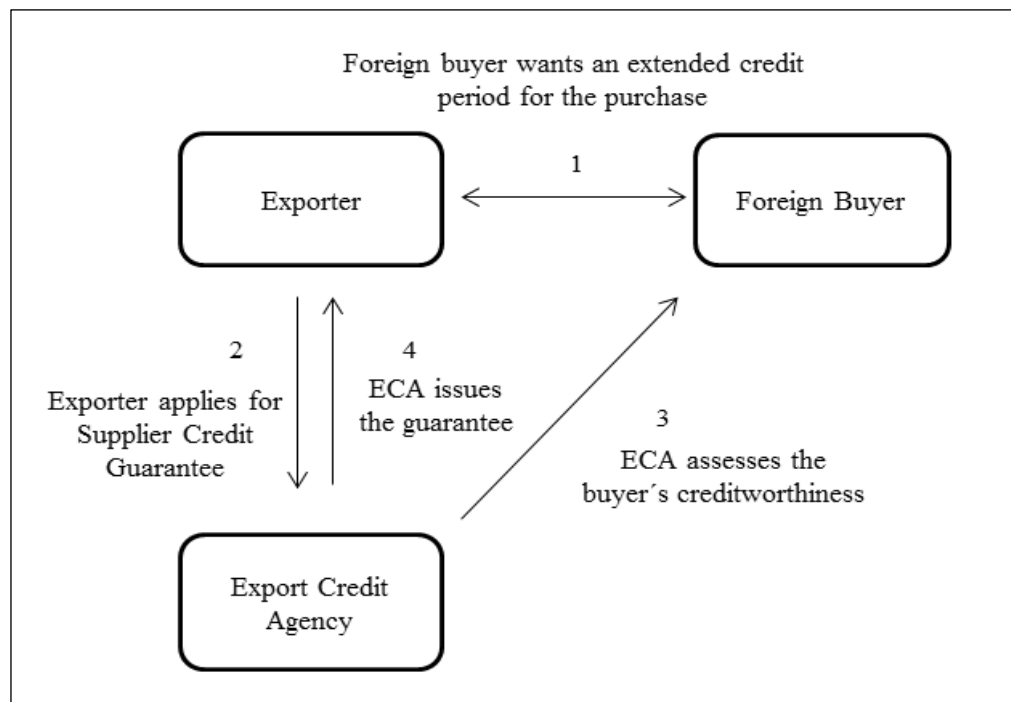


Figure 5.2. Model of Supplier Credit Guarantee of the Danish ECA – EKF.

Whether or not supplier guarantee is more cost effective than other financial solutions cannot be known a priori, and this requires a real assessment and calculations done by

the involved parties but obviously this scheme offers a supplier a selling point to their clients who need an extended period to pay for the merchandise. This is especially true for those who have limited cash flow and difficulty in obtaining loans from banks or can only obtain a part of the loan.

The credit period of a supplier credit guarantee is up to 8.5 years in countries defined by the OECD as high-income countries, and up to 10 years in all other countries. The foreign buyer is normally required to make a down payment of a minimum of 15 percent of the order amount in advance. The credit must also be granted as a serial loan with principal repayments of equal size plus accrued interest. In case the buyer defaults on payment due to commercial or political risks, EKF will pay maximum of 90 percent of the loss in compensation to the exporter. The exporter has to cover a deductible for at least 10 percent for commercial and political risks (EKF, n.d. b). However, there will be a waiting period which may last from 3 months to 1 year. The purpose of this waiting period is to see if any other solutions can be materialized. After the waiting period, if the buyer has not been able to make the payment, EKF will proceed reimbursing within 30 days (Beck, 2011).

5.2.3 Scenario 3: Export Loan

During an economic and financial crisis ECAs can be the only remaining source for trade-related financing. Basically an Export Loan is a lending scheme to help the foreign buyer when this buyer is unable to secure credit facilities from banks for purchasing products and services from the exporter. One should note that export loan is not always available among ECAs, in other word, not every ECA offers this kind of financing solution. The Danish export credit agency EKF offers export loans as a result of the current crisis and application for export loan can be made until end of 2015. In the case of EKF, they facilitate the export loan through a bank, and the loan is based on the bank's lending terms. This product is very important in the situation of global economic and financial crisis where banks are unable to provide loans to companies. In the interview with Bianfishco during the field trip in November 2011 this company stated that Vietnamese local banks can only lend to companies with the amount not exceeding 20 percent of the banks' total lending capital. This reflects limits in lending capacity of banks in Vietnam, especially the small banks. And thus this limits the opportunities for processors in particular and Vietnamese enterprises in general if they wish to invest in capital intensive processing solutions. Besides that, each individual

company enjoys different interest rates depending on how good their relationship is with the lending bank. From table 5.1 one can see the interest rates for both short term and medium long term are high. In this scenario, none of the four selected cases is used for assumption. However, in the context of current economic and financial crisis this scenario is critical important for Marel and its clients to learn about and they may use it in the case there is no other financing options available. Figure 5.3 below describes the main working steps required in export loan mechanism which is offered by Danish export credit agency EKF as follows:

- (1) Under an export contract to foreign buyer Marel (the supplier/exporter) notices that its customer cannot secure a credit facility. Neither the bank of Marel, the supplier, nor the buyer's bank in a position to lend to the buyer due to economic and financial crisis.
- (2) Marel will ask its bank to apply to EKF for an export loan.
- (3) The bank then will prepare all relevant documents to submit the application to EKF.
- (4) Based on the application and the export contract EKF will assess the buyer's creditworthiness to see if the associated (commercial and non-commercial) risks are acceptable. By reviewing various documents, such as audited annual reports (preferably audited by an international auditing firm), project feasibility study, etc. EKF can reduce the asymmetric information between itself and the buyer regarding its real financial status and thus reduce the likelihood of adverse selection. At this step EKF will also require an export guarantee (from the buyer) in order to protect itself against unnecessary risk entailed by the loan.
- (5) If the risks are acceptable and other conditions for the loans are met EKF and the bank will jointly determine the interest rate, terms and conditions applicable for the loan. Basically the export loan is lent on commercial terms, which are based on market conditions. EKF can either offer an export loan with a variable or fixed interest rate applied throughout the term of the loan.
- (6) EKF lets the bank (Marel's bank) handle the administration works regarding the loan to the buyer. And thus Marel and its foreign buyer can proceed with the export transaction.

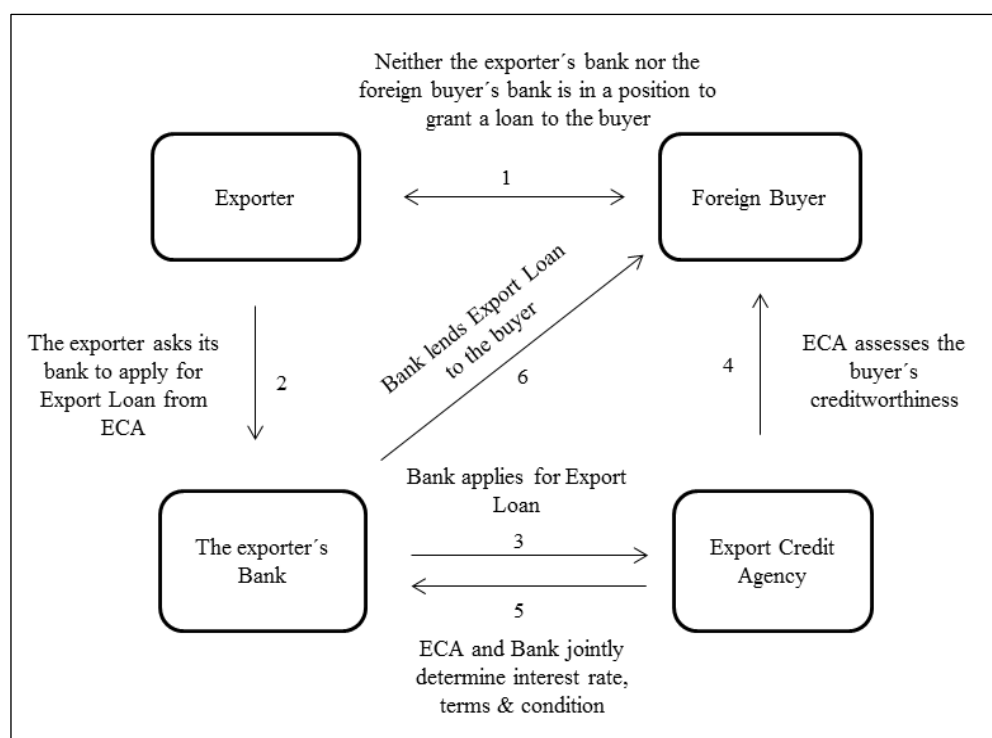


Figure 5.3. Model of Export Loan of the Danish ECA – EKF.

However, the cost associated and premium for export loan scheme is not necessarily lower than other traditional lending schemes because the export loan is granted jointly by a bank (usually the exporter's bank) and EKF to the foreign buyer based on commercial basis and market conditions. Beside that EKF will also require an export guarantee against the risk of non-payment by the foreign buyer and this increase the premium in total. As with the other two instruments discussed above the feasibility cannot be determined a priori. The final solution can only be seen if the assessment is done and an offer is made for a loan, based on this assessment.

An export loan is subject to a credit period of between 2 and 15 years. The loan may, however, be extended for a period of up to 18 years in the case of renewable energy and water supply projects. In case the buyer defaults on payment due to commercial and political risks, EKF will (i) pay out a maximum of 90 percent of the loss in compensation to the exporter, the exporter has to cover a deductible of at 10 percent of the commercial and political risks; and (ii) in case of bank, EKF covers up to 95 per cent of the commercial and political risks, so the bank's deductible is a minimum of 5 per cent of the commercial and political risks (EKF, n.d. c). However, there will be a waiting period which may last from 3 months to 1 year. The purpose of this waiting period is to see if any other solutions can be materialized. After the waiting period, if

the buyer has not been able to make the payment, EKF will proceed reimbursing within 30 days (Beck, 2011).

The analysis of three scenarios above is done based on the findings from phase 2 of the thesis. This analysis attempts to suggest practical and realistic financial solutions for Marel and its clients in Vietnam (and other emerging markets) in regard of risk coverage and possibility to proceed with trade. However, these three scenarios are not final solutions and to confirm whether or not they are feasible, real calculations are needed on a case by case basis. These calculations can only be done by involving the ECA formally.

The next section shows success stories that have been made public by EKF where the three instruments described above have already been used. These cases demonstrate how the instruments described work in real world situations and support trade to emerging markets for example by extending repayment periods and by lowering interest rates.

5.3 Success stories in using ECA's instruments

5.3.1 Olam International Limited and the use of Buyer Credit Guarantee from Danish ECA - EKF – for a manufacturing facility in Vietnam (2009).

Olam is a leading global supply chain manager and processor of agricultural products and food ingredients. With direct sourcing and processing in most major producing countries for various products, with the headquarters in Singapore, Olam has built a global leadership position in many businesses, including cocoa, coffee, cashew, sesame, rice, cotton and wood products. Olam operates an integrated supply chain for 20 products in 65 countries, delivering these products to over 11,000 customers worldwide (Olam, 2011).

The challenge

In the year 2009, Olam was looking to invest in equipment for its new coffee manufacturing facility in Vietnam. Olam chose a Danish company namely GEA Process Engineering A/S as the supplier. Unfortunately, the global economic and financial crisis made it difficult for Olam to secure the financing it needed to buy the equipment. At the same time, Olam's bank was reluctant to secure long term financing. "Owing to the lack of liquidity in the financial market in February 2009 it would in all probability have been impossible to secure financing with a repayment term beyond 2-3

years for Olam,” says Antero Ranta from Olam’s bank, ANZ Structured Asset and Export Finance, in Singapore.

The process

Thanks to long standing working relations between GEA and EKF, GEA proposed that EKF be involved in the process of procuring financing for Olam’s project in Vietnam. “I was convinced that EKF would be able to assist in putting the financing in place. For our part, it was all plain sailing, as, right from the start, our customer and ANZ were keen to take over and deal with EKF directly,” says Jesper Duckert, Project Finance Manager, GEA Process Engineering A/S. In order to implement the financing negotiations, EKF decided to send its representatives to Vietnam and had a meeting with representatives from Olam and ANZ Structured Asset. After the visit to Vietnam, EKF had better basis for assessing the actual credit risk entailed by the project.

The solution

After the meeting and negotiation EKF came up with a detailed assessment of the project and was able to offer a buyer credit guarantee. This guarantee meant that EKF assumed a share of the risk of extending a loan to Olam, and therefore, ANZ could secure financing for Olam as they needed. “With an export credit guarantee from EKF we were able to offer Olam a loan with a repayment term of 8.5 years,” says Antero Ranta from ANZ Structured Asset and Export Finance in Singapore. “In spite of the financial crisis we were able to secure long-term financing for our activities on a growth market,” says Arun Sharma, Senior Vice President, Coffee Division, Olam (EKF, 2009a).

5.3.2 A Jordanian company namely Modern Cement & Mining Company, and the use of Export Loan and Buyer Credit Guarantee from Danish ECA – EKF (period of credit: 2010 to 2017).

The challenge

In July 2008 the Jordanian company Modern Cement & Mining Company chose a Danish company namely FLSmidth as an equipment supplier for its new cement plant in the south of Amman. The first deliveries were already paid by the Jordanian company but the main part of the order was to be financed by a local bank. However, due to the global economic and financial crisis, the bank turned down applications for new loans. This threatened the progress of the construction and the order of FLSmidth . FLSmidth

decided to contact EKF in the spring of 2009 because FLSmidth had previously been assisted by EKF with guarantees for financing solutions.

The process

EKF had meetings with a number of international and local banks who expressed their interest in taking on the risks of the project provided that EKF would guarantee most of the loans. Furthermore, through the export lending scheme EKF was able to offer a loan to the buyer of FLSmidth services. Then EKF quickly endorsed the project. “EKF’s endorsement was conditional to the approval of the risks and terms in the transaction, its environmental impact and the extent of the Danish economic interest in the transaction – aspects which all needed further examination and subsequent negotiation with the parties involved” (EKF, 2010).

The solution

Finally the solution came into place in May 2010. “Half of the FLSmidth contract was financed with equity from the owners of the cement plant while the other half was financed with loans. More than half of the debt financing came from the Danish export lending scheme administered by EKF, while the remainder was provided by a group of local banks” (EKF, 2010). HSBC London arranged the EKF financing. HSBC London is also acting as agent bank on behalf of EKF. Thanks to EKF’s loan and guarantee, the construction of the cement plant in Jordan could continue as planned. And the plant is expected to be ready for production start-up at the beginning of 2012 (EKF, 2010).

5.3.3 Grain and seed exporter Nibulon Company in Ukraine used EKF’s Buyer Credit Guarantee to borrow money from a Western European Bank at a far lower interest rate than in Ukraine.

The challenge

In 2009, a Danish company, Cimbria Unigrain received the first of two large orders worth EUR 20 million from Nibulon, Ukraine’s largest grain and seed exporter and a high-growth company. This order consisted of eight silo facilities for storing, drying and loading grain and seed. And Nibulon uses this equipment to extend and standardize its storage and transportation facilities by the rivers of Ukraine and the Black Sea. However, the Ukrainian buyer’s constraint was that they had to borrow at a high interest rate in Ukraine to pay Cimbria Unigrain. And this might create uncertainty regarding the order from the Danish manufacturer.

The process

Cimbria contacted EKF and EKF agreed to assess the viability of the export order and work on the financing options via a guarantee from EKF. "Even allowing for the premium payable to EKF, Nibulon is making a big saving," says Sales Director Henning Roslev Bukh. He adds that Nibulon regards Cimbria Unigrain and EKF as important and regular business partners.

The solution

Finally EKF offered buyer credit guarantee to Nibulon. This meant that Nibulon was able to secure a loan from a Western European Bank at a far lower interest rate than in Ukraine. "Nibulon is very pleased that it was possible to arrange a Danish guarantee for this order. We might well have got the order anyway, as Nibulon has ordered from us for many years and is very satisfied with our products. Nibulon could perhaps have financed the purchase with equity, but it is often cheaper to borrow the money than to use equity, and equity is greatly needed in a growth-oriented company such as Nibulon," says Henning Roslev Bukh. And in 2010, Nibulon made another order for eight silo facilities – and once again, EKF provided a guarantee for the buyer's payments. Thanks to this order Cimbria Unigrain has hired 30 employees in 2010 (EKF, 2009b).

6. Discussions and conclusions

As mentioned in the introduction chapter, the objectives of the thesis are to: (i) analyze and assess the feasibility of Marel's expansion in Vietnam, and if feasible, what would be the most suitable mode for expanding Marel's operations in Vietnam; and (ii) to analyze and assess the funding solutions and risk mitigation instruments available to Marel and its future clients in Vietnam to help enable the clients to modernize their processing lines/equipment (here the focus is on the funding and risk mitigation instruments of ECAs). These two objectives were analyzed and assessed in chapter 4 and 5 of the thesis. In chapter 4 the Vietnamese market is analyzed and operational options are suggested for Marel's expansion in this market. Chapter 5 of the thesis analyzed and assessed funding solutions as well as risk mitigation instruments for both Marel and its foreign clients in emerging markets. The three scenarios were analyzed and chosen after extensive consultations with ECAs.

6.1 Answering the research questions, interpretation and evaluation

Through the market research chapter (4) one can see that Vietnam food processing industry is booming and has a strong growth potential. Within the food processing industry of Vietnam the fisheries sector is regarded as vanguard sector in modernizing and industrializing the processing lines and equipment. This is due to the competition that Vietnamese fisheries processors are faced with when they export to high income international markets. On the other hand the livestock sector still remains less innovative and employs less sophisticated processing lines. This is because the majority of the production in this segment is served for the local consumption. However, the fast pace of economic development in Vietnam and the urbanization in the main cities and nationwide will force the growth of hygienic specialized distribution channels also in livestock. These channels are supermarkets, hypermarkets, departments store like Big C, Metro Cash & Carry, Fivimart, Hapromart which were expected to grow 20 percent in the period of 2008 – 2012 (GAIN, 2008, p. 5). Processed and further processed food including livestock products will be required and become increasingly dominant in these channels. This is an opportunity for Marel to expand its sales because Marel Food Systems provides comprehensive food processing equipment and further processing equipment in both fisheries and livestock sectors. The short run growth potential for

Marel seems to be in fisheries sector while the medium or long term potential seems to be in livestock.

Based on the market research, the characteristics of doing business in Vietnam and the analysis of fisheries and livestock industries in Vietnam, a set-up of subsidiary company is the first model recommended, and retaining representative office is the second model to recommend to Marel Food Systems by the thesis author (see chapter 4). Generally all the four cases (discussed in chapter 5) stated that the fisheries processors had a plan for investment in new processing equipment in the near future and needed to borrow from banks to fund the investments especially for capital intensive processing solutions. Almost all of the banks they have been borrowing from so far are local state owned banks and some are local privately owned banks. There was only one case of a processor who had borrowed short term loans from international banks (ANZ and HSBC), however, other cases stated that they wanted to borrow from international/foreign banks in the future and they were initiating steps in establishing contacts with international banks. Basically all these processors had to go through the same procedure when applying for loans and all of them had to submit financial and annual reports. However, there are substantial differences in interest rates among these cases. As explained before this happens not only due to the good working experience that each company may have had with the lending bank but also it lays in the relationship of each company had with the lending bank. However, all of the cases reported high nominal interest rates resulting from high inflation in Vietnam. The cases also stated that it was not easy for them to borrow medium or long term loans given the restrictions in lending regulations of the banks due to the current economic and financial crisis. Another concern stated in these cases was that low rated feasibility studies by the banks (on the projects of the processors) often led to low amount of loan allocation. Besides that the cases also stated that one of their constraints was short term repayment to the equipment suppliers. All of them have to pay the suppliers within one to three months, or six months. This depends on the progress of delivery and assembly of the equipment. On the other hand, the suppliers also had never offered them an extended period nor did they suggest to them any innovative financing solutions, such as using ECAs. This can be a critical problem for companies who have limited cash flows and difficulty in borrowing loans from banks. Such companies are likely to end up buying piece meal processing solutions like the processors in the cases studies are doing.

The Vietnamese processors did during this study identify their constraints and difficulties in making large and longer term investments. There are financial solutions and instruments for Marel and its clients to solve these problems. The three scenarios offered by ECAs which are analyzed in chapter 5 seem to be the most feasible schemes that Marel can use for Vietnamese market as well as for other emerging markets. From the case study findings, one can see that financial and risk mitigation instruments provided by ECAs are unfamiliar to Vietnamese processors and suppliers are not suggesting their use in their negotiations with the processors. Among the findings of this research is that none of the suppliers who sold equipment to the processors (the four selected cases) offered them any financial solutions to help them in dealing with their constraints and difficulties i.e. short term repayment periods and inability in borrowing large loans. On the other hand, Vietnamese processors seem only familiar with traditional lending schemes and do not know about the existence of ECA (the case of Anvifish) and do not understand their instruments. However, in order to effectively utilize the instruments offered by ECAs, some issues need to be addressed. One of those issues is the readiness of Vietnamese processors. The readiness here includes the human resource capacity (is discussed in the following section) and their ability and willingness to supply ECAs with required relevant documents such as, information about credit history, good quality feasibility studies and audited annual reports that followed international standards and preferably audited by international auditing firms. Normally the assessment of ECAs on foreign buyers (commercial and non-commercial risk assessment) takes 6 weeks once the sufficient and complete application or dossier is submitted by relevant parties (i.e. usually is the foreign buyer and the exporter). This process may last to several months or even a year if the relevant party cannot or is unwilling to submit needed documents. This can affect and delay the progress of closing contracts between sellers and buyers if the assessment period is too long e.g. the seller cannot hold the price for a long time or the buyers need to have equipment purchased and installed for production. The majority of Vietnamese companies in general and these four cases in particular have financial and annual reports which are not in accordance to international standards and are audited by international auditing firms. This may negatively affect the creditworthiness assessment process and this is one of the problems that Vietnamese processors must address. During the discussion with EKF, the Danish ECA, and the Singaporean ECA, namely ECICS, they stated that their institution prefer working with well recognized international banks. However, the

Swedish ECA, EKN stated that they did not mind working with either international banks or local state owned or privately owned banks as long as the buyers are convenient with that bank. However, one can clearly observe from the interviews with the ECAs that if the foreign buyers in emerging markets are working with international banks this will help speed up the process of creditworthiness assessment and it increases credibility of the foreign buyers. In the four cases the processors stated that they plan to work with international banks as those banks were faster and the project feasibility study (if required) would be assessed and evaluated by a third party. This is big difference because currently the local banks had their own staff to evaluate the project feasibility study which may not be fairly evaluated as the person in charged may not an expert in the field. The next issue that needs to be discussed is the scale or amount of investment. It has been mentioned in chapter 5 that the associated costs and premium paid to use the instruments offered by ECAs are not necessarily lower than other solutions (i.e. borrowing form a bank without the support of an ECA). However, it depends among other things on how large the amount of the investment is. ECAs guarantees are usually more feasible for large transaction up to few or a dozens of millions of USD. One should bear in mind that ECAs need a margin for their own risk cover, operational cost. In addition to this come the interest rates imposed by relevant banks.

Among the purposes of this study is to identify the availability of risk mitigation instruments and financial solutions for the exporters and its foreign buyers in emerging markets. One can argue that these financial solutions may be expensive but as mentioned previously the real calculation need to be implemented on case by case basis. Surely, however, since ECAs typically have high credit rating (often AAA) the interest rates charged by the banks should be lower than without a guarantee. That is if the banks are behaving rationally. Also longer terms loans and larger lending volumes are more likely to be supplied by the banks if there is guarantee from an ECA. In the case of Olam, Mr Shah - the CFO - stated that the Vietnamese banking system could not supply a long term loan as the company required which were two transactions of USD 32 million. In this case the involvement of international banks may be necessary and in fact Olam used ANZ in Singapore (Shah, 2011).

6.2 Limitations of the study

Generally it was difficult to collect data from the processors in Vietnam. Data collection started with a simple questionnaire that was sent to 22 large processors and 13 responded. Even these responses were often brief and incomplete and countless phone calls were made by the thesis author to Vietnam from Marel HQ to try to fill in the information gap. To obtain more reliable information it was decided in cooperation with Marel to focus on pangasius processors and select 4 large processors for case studies. While interviews were granted by all these processors and three of the processors granted permission for the author of the thesis to visit their processing facilities, it was generally difficult to obtain data. Often managers said that they would need to get board approval or approval from the general manager to release data. Vietnamese companies in general and these processors in particular present the hierarchy characteristic in their organizational culture. This means that decision making is centralized and high power distance in Vietnamese owned companies seems dominating. The author made efforts to fill in the information gap by sending emails to processors after the field trip and by making phone calls from Marel HQ and the University of Akureyri.

During the interviews when the field trip was conducted many managers of the fish processing companies had difficulty speaking English. Most have no experience at all in working with international banks or with institutions such as ECAs. This will be an obstacle for them when seeking cooperation with ECAs and international banks. Those institutions are demanding and risk averse and request extensive information as stated before, including audited annual reports according to international standards, detailed feasibility studies, information about credit history, etc. It is likely that many fisheries processors in Vietnam will have difficulties in supplying such information and often annual reports using international standards do not exist at all and are not audited by international firms. This is not surprising for a country like Vietnam since the country recently was a low income developing country and only recently achieved low middle income status in 2010 according to World Bank Group classifications. However, Vietnam is a fast growing and developing country increasingly moving towards openness and in a few years things can change and companies learn. Due to the limited data available the author decided to strengthen the study by including three selected cases from EKF, the Danish ECA. Those cases demonstrate what is possible in emerging market economies. One case is from Vietnam i.e. Olam. The author had a

meeting with the Chief Financial Officer of Olam in Ho Chi Minh City and has maintained email contact with him. That particular case is a success story in Vietnam; however, this CFO is an expatriate with strong knowledge in finance and was able to establish good cooperation and trust with both EKF in Denmark and ANZ in Singapore. He and his company were thus able to secure two guarantees (from EKF) and two loans (from ANZ) in the amount of USD 32 million in 2009 and another USD 32 million in 2011. This demonstrates what is possible with professionalism and when necessary information is provided. Companies in Vietnam are learning fast and there is no reason why other companies in Vietnam cannot follow in the footsteps of Olam. It is also understandable that ECAs and international banks want to reduce the information asymmetry that exists between them and the borrowers by demanding extensive information. ECAs providing guarantees are naturally rather risk averse and are keen to maintain their strong credit rating.

There are hundreds of small and medium sized fisheries processors in Vietnam. Given the limited sample number in the case study methodology the results of this thesis are not generalizable for the whole fisheries sector Vietnam. The selected cases/processors focus on processing and exporting pangasius. This means the selected cases are also not generalizable for the whole fisheries processors who are e.g. shrimp processors, aquatic plants processors etc. This is for example due to the different characteristics in the use equipment needed in processing³⁸. In other words, the financial solutions in this thesis presents are not necessarily suitable or applicable for all other processors of Vietnam's fishery industry.

6.3 Need for further research

Some processors seem to enjoy lower interest rates with local banks than others. The reasons for this need further research. Lower interest rates can be due to long working experience with the bank but might also be due to political connections. The incentive system in Vietnam may in some cases be that processors spend time establishing good connections with politicians instead of trying to use innovative solutions for funding involving ECAs and international banks. The study focused mainly on ECAs where Marel has production facilities, including in Denmark, the Netherlands and Singapore.

³⁸ In the fisheries sector, most of Marel's equipment is suitable for fish processing e.g. filleting, skinning, trimming, slicing, freezing, grading etc. Some of this equipment is applicable for shrimp product too e.g. grading, freezing etc.

The study did not focus on the Icelandic ECA that is called TRÚ. The office of TRÚ was visited during the study but their staff reported that the agency had never processed a single transaction. Initially this agency was supposed to cooperate with EKN in Sweden but during an interview with EKN in Stockholm in November 2011 they confirmed that TRÚ had not made any recent contact with them. Since Marel has HQ in Iceland it could become important for the company to have a functioning ECA in Iceland. However an Icelandic ECA could have problems operating efficiently due to the fact that the credit rating of the Icelandic government has been reduced during the current economic and financial crisis. Further research would be needed to explain why TRÚ never processed a guarantee post crisis.

6.4 Other related studies and knowledge gap filled

The author of this thesis is not aware of any comparable study that has been carried out focusing on large fisheries processors in Vietnam. Given that the case studies presented in the thesis focus on only four cases the results are not generalizable for the whole fisheries industry, however, the thesis does fill in a knowledge gap by collecting data/information from four processors in Vietnam who are among the largest processors in the country. Furthermore the constraints faced by those processors were analyzed and assessed. The thesis does suggest solutions on how large processors in a low middle income emerging market country like Vietnam, who are modernizing their processing lines to better compete internationally, can access funds with the support of ECAs. Working with ECAs will be a challenge for the fish processors discussed above but it is by no means impossible.

6.5 Conclusions

In order to reach the objectives of this research, the thesis was from the beginning intended to answer the following research questions:

(1) Is it feasible for Marel to expand its operations in Vietnam and, if so, what is the most feasible mode of expansion?

(2) How can Marel, as an exporter, and the Vietnamese processors, as importers use the financial services and risk mitigation instruments offered by ECAs?

(3) Is the use of those financial services and risk mitigation instruments feasible for Marel and the processors as compared to the current funding mechanism?

Vietnam has a large and growing fisheries sector and it seems feasible for Marel to expand in this market which is discussed in chapter 4. In the short term expansion in the fisheries sector seems most feasible. In the medium and long term entry into the livestock sector maybe feasible. The thesis proposes specific modes for expansion in the fisheries sector i.e. a wholly owned subsidiary as the first recommendation and retaining representative office as the second recommendation, see chapter 4. The thesis described in detail how Marel as an exporter and the Vietnamese processors as importers can use the risk mitigation instruments of ECAs in the scenarios presented in chapter 5. Three instruments were selected as most relevant after visiting and conducting detailed interviews with four ECAs and the processors in the four cases. The instruments selected are (i) Buyer Credit Guarantee, (ii) Supplier Credit Guarantee, and (iii) Export Loan.

Limited data was provided by the processors, however, processors complained about high nominal interest rates, insufficient allocation of loans and short repayment periods. In addition to the cases during a field trip in Vietnam, the study also refers to cases available from EKF where other companies could obtain loans and longer term repayment periods using ECAs instruments. Regarding the interest rates it seems clear that a guarantee from an AAA rated ECA reduces the risk and therefore should result in lower interest rates demanded by the lending bank. This should be expected if the banks behave rationally. Reduced risks should also increase the likelihood of a longer repayment period like the case of Olam shows and could also possible result in larger loan allocation. On the basis of the interviews with the fisheries processors in the four cases, the EKF's cases provided from other industries, an interview with the Chief Financial Officer of Olam, and interviews with ECAs in four countries, it seems likely that the use of those financial services and risk mitigation instruments from ECAs could be feasible for Marel and the processors as compared to the current funding mechanism. By using such instruments Marel could increase its probability of selling comprehensive processing lines/solutions to processors instead of the current piece-meal solutions provided. Through the three scenarios presented one can see that lower risks could lower the interest rates, and could also result in longer repayment periods and larger loan allocation (Buyer Credit Guarantee); with a guarantee from an ECA, Marel can offer an extended payment period to its clients in emerging markets (Supplier Credit Guarantee); and Marel's potential buyers have the possibility to access to direct loans

from ECAs if they cannot get those in their home countries due to economic and financial crisis (Export Loan). However, the ECAs must receive its premium payments for providing the guarantees. As the scenario analysis for the case studies shows this must be calculated on a case-by-case basis by the ECAs and cannot be determined a priori.

Finally, the cases from EKF also reported in the thesis show real world examples of companies achieving the goal of lower interest rates and longer repayment periods (Buyer Credit Guarantee) and accessibility to a loan from a foreign country (Export Loan) with the assistance from the export credit agency EKF. There seems no reason why this could not also be the case for Vietnamese processors. Borrowing in foreign currency because of the high nominal interest rates in Vietnam is something that Vietnamese processors could consider since these processors are large exporters and receive revenues in foreign exchange. The use of the services of ECAs probably makes more sense for large and comprehensive processing solutions than partial solutions. Also it was very clear from the interviews with the ECAs that financial disclosure is very important for timely processing of ECAs' guarantees. This will be an obstacle for fisheries processors who are either not willing or unable to supply audited annual reports according to international accounting standards. Finally, it must be kept in mind that this study focuses on large fisheries processors who are also large exporters. One should avoid using the findings of this thesis to generalize for the whole fisheries industry.

References

- AAFC. (2010). *Vietnam's Market for Imported Meat and Poultry. A Guide for Canadian Exporters*. Singapore: Stanton, Emms & Sia. Retrieved July 13, 2011, from <http://www.ats-sea.agr.gc.ca/ase/5682-eng.htm>
- AME Pte. (2011). Retrieved July 21, 2011, from the company's website: <http://www.ame.vn/home>
- Anritsu. (2011). Retrieved July 21, 2011, from the company's website: <http://www.anritsu-industry.com/en/>
- Anvifish. (2010). *Annual Report 2010*. Retrieved June 24, 2011, from <http://www.hsx.vn/hsx/Uploaded/2011/04/18/20110418%20-%20AVF%20-%20Bao%20cao%20thuong%20nien%20nam%202010.pdf>
- Arico. (2011). Retrieved July 20, 2011, from the company's website: <http://www.arico.com.vn/GL/vn/trang-chu/>
- Ascari, R. (2007). *Is Export Credit Agency A Misnormer? The ECA Response To A Changing World*. Working Paper No. 02. Rome: SACE, the Italian Insurance and Financial Group. Retrieved February 25, 2012, from <http://www.sace.it/GruppoSACE/export/sites/default/download/wpsacen02.pdf>
- Asmundson, I., Dorsey, T., Khachatryan, A., Niculcea, I., & Saito, M. (2011). *Trade and Trade Finance in the 2008-09 Financial Crisis*. IMF Working Paper WP/11/16, Strategy Policy and Review Department. Retrieved March 15, 2012, from <http://www.imf.org/external/pubs/ft/wp/2011/wp1116.pdf>
- Atradius. (2010). *Atradius Country Report: Vietnam - December 2010*. Amsterdam: Atradius. Retrieved July 4, 2011, from http://global.atradius.com/images/stories/CountryReports/VIETNAM_Dec_2010.pdf
- Auboin, M., & Meier-Ewert, M. (2003). *Improving the Availability of Trade Finance during Financial Crises*. Geneva: WTO. Retrieved January 20, 2012, from http://www.wto.org/english/res_e/booksp_e/discussion_papers2_e.pdf
- Baader. (2011). Retrieved July 21, 2011, from the company's website: <http://www.baader.com/>
- Beck, G. (2011, November 11). Verbal Interview with the Danish Export Credit Agency EKF - Ms. Grethe Beck, Associate Director. (T. Q. Dinh, Interviewer) Copenhagen.

- Cavusgil, T. S., Knight, G., & Riesenberger, J. R. (2008). *International Business. Strategy, Management and the New Reality*. Upper Daddle River, New Jersey: Pearson Prentice Hall.
- Chauffour, J.-P., & Farole, T. (2009). *Trade Finance in Crisis. Market Adjustment or Market Failure?* International Trade, Policy Research Working Paper 5003. Washington: The World Bank. Retrieved January 20, 2012, from http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2009/07/20/000158349_20090720085356/Rendered/PDF/WPS5003.pdf
- Chauffour, J.-P., Saborowski, C., & Soylemezoglu, A. I. (2010). *Trade Finance in Crisis. Should Developing Countries Establish Export Credit Agencies?* International Trade, Policy Research Working Paper 5166. Washington: The World Bank. Retrieved January 7, 2012, from http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2010/01/05/000158349_20100105093633/Rendered/PDF/WPS5166.pdf
- Chungha. (2011). Retrieved July 20, 2011, from the company's website: <http://www.chamco.co.kr/chung/index.aspx>
- Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2007). *International Business. Environments and Operations* (11th ed.). New Jersey: Pearson Prentice Hall.
- Decree 72/2006. (2006, July 25). *Investment & Trade Promotion - How to Invest*. Retrieved March 31, 2012, from [itpc.gov.vn: http://www.itpc.gov.vn/investors/how_to_invest/law/2008-09-25.570547/mldocument_view/?set_language=en](http://www.itpc.gov.vn/investors/how_to_invest/law/2008-09-25.570547/mldocument_view/?set_language=en)
- Dinh, T. X. (2009). *Report on Investigation of Component, Productivity and Organization of Pig, Buffalo and Beef Production*. An email exchange with the thesis author. Hanoi: National Institution of Animal and Husbandry Vietnam.
- ECA-Watch. (2003). *Race to the Bottom, Take II. An Assessment of Sustainable Development Achievements of ECA-Supported Projects Two Years After OECD Common Approach Rev 6*. ECA Watch. Retrieved January 8, 2012, from http://www.eca-watch.org/eca/race_bottom_take2.pdf
- EIU. (2007). *World Investment Prospects to 2011. Foreign Direct Investment and the Challenge of Political Risk*. London: The Economist Intelligence Unit. Retrieved September 6, 2011, from http://graphics.eiu.com/upload/WIP_2007_WEB.pdf
- EIU. (2010). *Vietnam, Country Forecast*. London: The Economist Intelligence Unit. Retrieved June 4, 2011, from <http://www.viet-studies.info/kinhte/EIU-VN-Country-Forecast-2010-02.pdf>

- EKF. (2009a). *Case: Olam buys Danish equipment with long-term loan*. Retrieved November 14, 2011, from ekf.dk: <http://www.ekf.dk/en/How-it-works/cases/Pages/GEA-Process-Engineering.aspx>
- EKF. (2009b). *Case: Ukrainian orders create jobs in Thisted, Denmark*. Retrieved November 14, 2011, from ekf.dk: <http://www.ekf.dk/en/How-it-works/cases/Pages/Cimbria.aspx>
- EKF. (2010). *Case: EKF secures financing of large FLSmidt order to Jordan*. Retrieved November 14, 2011, from ekf.dk: <http://www.ekf.dk/en/How-it-works/cases/Pages/FLSmidt.aspx>
- EKF. (n.d. a). *Product: Buyer Credit Guarantee*. Retrieved October 8, 2011, from ekf.dk: http://www.ekf.dk/en/WhatWeDo/Products/Documents/PDF_buyer_credit_guarantee.pdf
- EKF. (n.d. b). *EKF Product: Supplier Credit Guarantee*. Retrieved October 8, 2011, from ekf.dk: http://www.ekf.dk/en/WhatWeDo/Products/Documents/PDF_supplier_credit_guarantee.pdf
- EKF. (n.d. c). *EKF Product: Export Loan*. Retrieved October 8, 2011, from ekf.dk: http://www.ekf.dk/en/WhatWeDo/Products/Documents/PDF_export_loans.pdf
- Ekpenyong, D. B., & Umoren, N. J. (2010, Jan - Jun). Political Risk and The Business Environment: An Examination of Core Challenges. *Journal of Financial Management & Analysis*, 23(1), 27-32. Retrieved January 17, 2012, from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=54389950&site=ehost-live>
- FAO. (2005, May). *Information of Fishery Sector - Vietnam*. Retrieved July 18, 2011, from fao.org: <http://www.fao.org/fi/oldsite/FCP/en/VNM/profile.htm>
- FAO. (2008a). *FAOSAT. Exports - Commodities by Country - Vietnam*. Retrieved June 24, 2011, from fao.org: <http://faostat.fao.org/site/342/default.aspx>
- FAO. (2008b). *Poultry Production Systems in Vietnam*. GCP/RAS/228/GER Working Paper No. 4., Prepared by Nguyen Van Duc and T. Long. Rome: FAO. Retrieved June 4, 2011, from <http://www.fao.org/docrep/013/al693e/al693e00.pdf>
- FAO. (2008c). *Commodities by country. Top Production - Indigenous Pigmeat - Vietnam - 2008*. Retrieved July 4, 2011, from fao.org: <http://faostat.fao.org/site/339/default.aspx>

- FAO. (2009a). *FAOSTAT. Production of Poultry - Vietnam*. Retrieved July 16, 2011, from faostat.fao.org:
<http://faostat.fao.org/site/569/DesktopDefault.aspx?PageID=569#ancor>
- FAO. (2009b). *FAOSTAT. Production of Pork - Vietnam*. Retrieved July 16, 2011, from faostat.fao.org:
<http://faostat.fao.org/site/569/DesktopDefault.aspx?PageID=569#ancor>
- FAO. (2010). *The State Of World Fisheries And Aquaculture 2010*. Rome: FAO. Retrieved August 10, 2011, from
<http://www.fao.org/docrep/013/i1820e/i1820e.pdf>
- Finger, K. M., & Schuknecht, L. (1999). *Trade, Finance and Financial Crises*. Geneva: WTO. Retrieved January 12, 2012, from
http://www.wto.org/english/res_e/booksp_e/special_study_3_e.pdf
- Fitzgerald, B., & Monson, T. (1989). Preferential Credit and Insurance as Means to Promote Exports. *The World Bank Research Observer*, 4(1), 89-114. Retrieved January 2, 2012, from http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/1999/09/17/000178830_98101911453842/Rendered/PDF/multi_page.pdf
- GAIN. (2008). *Vietnam Retail Food Sector 2008*. Global Agriculture Information Network. HCM City: USDA Foreign Agricultural Service - US Consulate . Retrieved from <http://www.fas.usda.gov/gainfiles/200811/146306458.pdf>
- GAIN. (2009). *Exporter Guide Annual - Vietnam Exporter Guide 2009*. Global Agriculture Information Network. USDA Foreign Agricultural Service. Retrieved February 20, 2012, from
http://gain.fas.usda.gov/Recent%20GAIN%20Publications/EXPORTER%20GUIDE%20ANNUAL_Hanoi_Vietnam_10-15-2009.pdf
- Garcia-Alonso, M. C., Levine, P., & Morga, A. (2004). Export Credit Guarantees, Moral Hazard and Exports Quality. *Bulletin of Economic Research*, 56(4). doi:10.1111/j.1467-8586.2004.00206.x
- Hilmarsson, H. P. (2008). Private Sector Investment from Small State in Emerging Markets: Can International Financial Institutions Help Handle the Risks? *Stjórnmal og Stjórnsýsla*. Retrieved from
<http://skemman.is/stream/get/1946/8972/23944/1/a.2008.4.2.1.pdf>
- Hilmarsson, H. P. (2010). Can A Small Country Like Iceland Contribute to the Global Transformation to Clean Energy? *Collection of Scientific Paper 2010*. Retrieved January 10, 2012, from
<http://www.rsu.lv/eng/images/Documents/Publications/2010-248-SocENG.pdf>

- Hoa Nam. (2011). Retrieved July 21, 2011, from the company's website:
<http://www.hoanam.vn/>
- Incom. (2011). Retrieved July 21, 2011, from the company's website:
<http://incomjsc.com/>
- International Finance Corporation. (2006). *Financing Electrical Equipment Worldwide. Frequently asked questions*. Retrieved March 15, 2012, from ifc.org:
<http://www1.ifc.org/wps/wcm/connect/6ac2f180478ce154bd55bf86d3bfc329/Electrical%2BEquip%2BBroch.pdf?MOD=AJPERES>
- Linco. (2011). Retrieved July 21, 2011, from the company's website:
<http://www.lincofood.com/>
- Lloyd's. (2007). *Under attack? Global Business and the Threat of Political Violence*. London: Lloyd's. Retrieved September 6, 2011, from
<http://www.lloyds.com/~media/Lloyds/Reports/360%20Terrorism%20Reports/GlobalBusinessUnderAttack.pdf>
- Lou, T. (2009). *Political Risk and Country Risks in International Business. The Oxford Handbook of International Business*. Oxford Handbooks.
doi:10.1093/oxfordhb/9780199234257.001.0001
- Malouche, M. (2009). *Trade and Trade Finance Developments in 14 Developing Countries Post September 2008. A World Bank Survey*. International Trade, Policy Research Working Paper 5138. Washington: The World Bank. Retrieved January 20, 2012, from <http://www.iadb.org/intal/italcdi/PE/2009/04451.pdf>
- Marelec. (2011). Retrieved July 21, 2011, from the company's website:
<http://www.marelec.com>
- Meldrum, D. H. (2000, January). Country Risk and Foreign Direct Investment. *Business Economics*, 35(1), 33. Retrieved from
<http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=2988776&site=ehost-live>
- Mesutronic. (2011). Retrieved July 21, 2011, from the company's website:
<http://www.mesutronic.de>
- Meyn. (2011). Retrieved July 21, 2011, from the company's website:
<http://www.meyn.com/>
- MIGA. (2009). *World Investment and Political Risk*. MIGA. Washington, DC: The World Bank. Retrieved December 12, 2011, from
<http://www.miga.org/documents/flagship09ebook.pdf>

- MIGA. (2010). *World Investment and Political Risk*. Washington, DC: The World Bank. Retrieved December 12, 2011, from <http://www.miga.org/documents/WIPR10ebook.pdf>
- Nam Dung Ltd. (2011). Retrieved July 20, 2011, from the company's website: <http://www.namdung.vn/>
- OECD. (2003). *Glossary of Statistical Terms. Definition of Commercial Risk*. Retrieved October 15, 2011, from [oecd.org](http://stats.oecd.org/glossary/detail.asp?ID=5896): <http://stats.oecd.org/glossary/detail.asp?ID=5896>
- OECD. (n.d). *Arrangement on Export Credits. Country Risk Classification*. Retrieved December 12, 2011, from [oecd.org](http://www.oecd.org/document/49/0,2340,en_2649_34171_1901105_1_1_1_1,00.html): http://www.oecd.org/document/49/0,2340,en_2649_34171_1901105_1_1_1_1,00.html
- Olam. (2011). *Annual Report 2011*. Olam International. Retrieved January 12, 2012, from http://olamonline.com/resources#Annual Reports_2011
- Peng, M., & Meyer, K. (2011). *International Business*. London: South-Western Higher Education, Cengage Learning.
- PricewaterhouseCooper. (2003, November). *Comparative Review of IFI Risk Mitigation Instruments and Direct Sub-sovereign Lending. Submitted to The World Bank*. Retrieved January 10, 2012, from [financingwaterforall.org](http://www.financingwaterforall.org/): http://www.financingwaterforall.org/fileadmin/Financing_water_for_all/Stakeholders_responses/Final_PWC_Report_011304.pdf
- Quang Trung. (2011). Retrieved July 21, 2011, from the company's website: <http://quangtrung.eu/>
- Recom Ltd. (2011). Retrieved July 20, 2011, from the company's website: <http://www.recom-vn.com/>
- Reuters. (2010, December 2). *Vietnam 2010 remittances to rise 14% to \$7.3bil-cbank*. Retrieved from [reuters.com](http://www.reuters.com/): <http://www.reuters.com/article/2010/12/02/vietnam-economy-remittances-idUSWNAS017820101202>
- Rex Technology. (2011). Retrieved July 21, 2011, from the company's website: <http://www.rex-technologie.com/>
- Rieckermann. (2011). Retrieved July 21, 2011, from the company's website: <http://www.rieckermann.com/>
- Ross, D. G., & Pike, R. H. (1997, April). Export Credit Risks and the Trade Credit Offer: some Canadian Evidence. *Journal of Multinational Financial*

Management, 7(1), 55-70. doi:[http://dx.doi.org/10.1016/S1042-444X\(97\)00005-4](http://dx.doi.org/10.1016/S1042-444X(97)00005-4)

- Royal Embassy of Denmark. (2010). *The Fisheries Sector in Vietnam: A Strategic Economic Analysis*. Royal Embassy of Denmark in Vietnam - Fisheries Sector Programme Support (FSPS) II. Retrieved July 4, 2011, from http://www.asien.um.dk/NR/rdonlyres/0E9538FE-8D14-41CE-9330-DC7D43170356/0/FishReport_UoCCIEM.pdf
- Sacombank. (2010). *Review of Vietnam's Fisheries Sector and Estimates*. Hanoi: SBS Securities. Retrieved June 4, 2011, from <http://www.sbsc.com.vn/portal/sbsfiles/others/e4bb49bd-a8bd-4c48-809d-6b5b147341bf.pdf>
- Saigon Technology. (2011). Retrieved July 20, 2011, from the company's website: <http://www.techgel.com/>
- Schmidt, D. A. (1986). Analyzing Political Risk. *Business Horizons*, 29(4), 43. Retrieved January 17, 2012, from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=4530077&site=ehost-live>
- Schmit, M., Gheeraert, L., Denuit, T., & Warny, C. (2011). *Public Financial Institutions in Europe*. Association of Development Financing Institutions in Asia and the Pacific. Brussels: European Association of Public Banks. Retrieved January 22, 2012, from http://www.adfiap.org/wp-content/uploads/2011/06/2011_03_28_Publ-Fin-Inst-in-Europe_Final.pdf
- SeafoodSource. (2011, December 28). *Seafood News Supply & Trade*. Retrieved March 15, 2012, from SeafoodSource.com: <http://www.seafoodsource.com/newsarticledetail.aspx?id=13481>
- Searefico. (2011). Retrieved July 20, 2011, from the company's website: <http://www.searefico.com/vn/home/>
- Seatecco. (2011). Retrieved July 20, 2011, from the company's website: <http://seatecco.vn/home/index.php>
- Shah, R. (2011, November 21). Verbal Interview with Olam Vietnam - Mr. Rajiv Shah, CFO. (T. Q. Dinh, Interviewer) Ho Chi Minh City.
- Stephens, M. (1996). Setting Up an Export Credit Insurance Agency. *International Trade Forum*(3). Retrieved August 31, 2011, from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=9704171695&site=ehost-live>
- Swiss Business Hub ASEAN. (2006). *Market Report - Food Processing and Packaging Equipment Market in ASEAN - an Industry Overview*. Singapore: Converging

- Knowledge Pte Ltd. Retrieved July 20, 2011, from http://www.osec.ch/internet/osec/en/home/export/countries/sg/export/economic_report-RelatedBoxSlot-12795-ItemList-92568-File.File.pdf/Branchenbericht_Food%20Processing%20and%20Packgaing%20ASEAN%20_070808.pdf
- TST Ltd. (2011). Retrieved July 20, 2011, from the company's website: <http://www.tstcoltd.com/>
- Tvardek, S. (2011, December 30). *Trade Finance. Smart rules for fair trade: Export Credit Financing*. Retrieved February 4, 2012, from [tradefinancemagazine.com: http://www.tradefinancemagazine.com/Article/2954798/Smart-rules-for-fair-trade-Export-Credit-Financing.html](http://www.tradefinancemagazine.com/Article/2954798/Smart-rules-for-fair-trade-Export-Credit-Financing.html)
- VASEP. (2009). *Vietnam's Fisheries Exports in 2009*. Hanoi: VASEP. Retrieved July 14, 2011, from emails exchanged with VASEP
- VASEP. (2010). *Vietnam's Fisheries Exports 2010*. Hanoi: VASEP. Retrieved July 14, 2011, from emails exchanged with VASEP
- Venkataramany, S., & Bhasin, B. (2011). Institutionalization of Export Promotion in India: An Empirical Study. *International Business Research Conference*. Dubai: World Business Institute. Retrieved January 20, 2012, from <http://www.wbiconpro.com/258-Sivakumar.pdf>
- Viet Cuong. (2011). Retrieved July 20, 2011, from the company's website: <http://www.vietcuong-machinery.com/>
- VnExpress. (2011, July 12). Retrieved July 28, 2011, from Business - Real estate: <http://vnexpress.net/gl/kinh-doanh/2011/07/van-phong-cho-thue-van-chiu-ap-luc-giam-gia/>
- Wild, J. J., Wild, L. K., & Han, J. C. (2010). *International Business. The Challenges of Globalization* (5th ed.). New Jersey: Pearson Education Inc.,
- World Bank. (2009). *Project Appraisal Document On A Proposed Credit In the Amount of SDR 42.1 Million (US\$ 65.26 Million Equivalent) To The Socialist Republic Of Vietnam For A Livestock Competitiveness and Food Safety Project*. East Asia and Pacific Region: The World Bank. Retrieved June 4, 2011, from http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2009/09/03/000333038_20090903025309/Rendered/PDF/501610PAD0P09011y10IDA1R20091024411.pdf
- World Bank. (2011a). *East Asia and Pacific Economic Update 2011 - Country Pages and Key Indicators*. Washington: The World Bank. Retrieved June 5, 2011, from http://siteresources.worldbank.org/INTEAPHALFYEARLYUPDATE/Resource/s/550192-1300567391916/EAP_Update_March2011_vietnam.pdf

- World Bank. (2011b). *Taking Stock. An Update on Vietnam's Recent Economic Developments*. Washington: The World Bank. Retrieved June 4, 2011, from <http://siteresources.worldbank.org/INTVIETNAM/Resources/TakingStockEng.pdf>
- World Bank. (2011c). *Vietnam at A Glance*. Washington: The World Bank. Retrieved June 3, 2011, from http://devdata.worldbank.org/AAG/vnm_aag.pdf
- World Bank. (2011d). *Doing Business in Vietnam*. Washington: The World Bank. Retrieved June 4, 2011, from <http://www.doingbusiness.org/~media/fpdkm/doing%20business/documents/annual-reports/english/db11-fullreport.pdf>
- Yescombe, E. R. (2002). *Principles of Project Finance*. San Diego, California: Academic Press. An Imprint of Elsevier.
- Yin, R. K. (2009). *Case Study Research. Design and Methods* (4th ed., Vol. 5). California: SAGE Inc.

Annex 1: Questionnaire to the 22 largest Vietnamese fisheries processors in summer 2011

1. What are your main products? Please list your main products (e.g. shrimp, pangasius, etc).

2. How many percent of your production is for local market and how much is for export in terms of gross revenue?

3. How many tons of raw materials are used in production per day for each of your main products? Please identify each product and tons processed per day.

- a. Product _____ tons processed per day _____
- b. Product _____ tons processed per day _____
- c. Product _____ tons processed per day _____
- d. Product _____ tons processed per day _____
- e. Product _____ tons processed per day _____

4. What are the main markets (or countries) your products are exported to (E.g. European Union, Japan, United States, etc)? How many percent it accounts for in total export value?

- a. Country/market _____ % of total export per year _____
- b. Country/market _____ % of total export per year _____
- c. Country/market _____ % of total export per year _____
- d. Country/market _____ % of total export per year _____
- e. Country/market _____ % of total export per year _____

5. In the processing chain, what are your advantages and disadvantages?

6. Are you satisfied with the processing equipment that you currently have? Why or why not?

7. Does your company have any plan to modernize the equipment or solutions in the processing chain in the future? Why or why not?

8. If you plan to modernize your equipment when is that likely to happen?

- a. Within 02 years

- b. Within 03 to 04 years
 - c. Within 05 to 7 years
- 9. What are the main problems or constraints your company wants to solve if you plan to modernize your equipment (or solution)?
- 10. If you decide to modernize your processing equipment in the near future what, if any, would be your main constraint?
 - a. Funding the modernization
 - b. Lack of trained staff to operate the new equipment
 - c. Other (please specify)
- 11. Where do you normally get funds to buy new equipment? (This question may have more than one answer)
 - a. Private Bank
 - b. State-owned commercial bank
 - c. Vietnam Bank for Agriculture and Rural Development
 - d. International bank
 - e. Development Assistance Fund
 - f. International Finance Corporation (IFC)
 - g. Asian Development Bank (ADB)
 - h. NGOs
 - i. Business partners
 - j. From the agent or company selling the equipment
 - k. From your own company's fund
 - l. From friends or family
 - m. Other (please specify)
- 12. When you buy new equipment, how long do you have to pay normally
 - a. Within 03 months
 - b. Within 06 months
 - c. Within 01 year
 - d. Within 03 years
 - e. Within 05 years
 - f. More than 5 years
 - g. As soon as the equipment delivered

Annex 2: Field trip questionnaire sent to the four selected cases/companies

1. How do you currently fund the purchase of equipment and machinery for your processing plant?
2. If your company borrows from bank, which bank are you currently borrowing from?
3. Are you satisfied with the service you get from your bank? Why and why not?
4. What are the procedures and documents required by your bank in Vietnam if you apply for a loan?
5. What are the interest rate/ premium you pay currently for VND and USD loan?
6. If you want to borrow from your bank to modernize your processing equipment, what is the maximum repayment period (years) i.e. how long time do you get to repay the loan?
7. What are the main problems or difficulties you usually face when applying for loan, if any? Please specify.
8. Regarding problems you may face when applying for loan, what do you expect from your bank to help facilitate or solve these problems?
9. How long does it usually take if your company wants to borrow about USD 5 to 7 million? How high would the interest rate/ premium be for this amount of loan currently?
10. Currently, how long do you have to pay your suppliers (equipment manufacturers) when the equipment is delivered or fully installed? (How many months or years?)
11. Do your suppliers (equipment manufacturers) usually offer you an extended credit period in which you can make down payment for longer period? If so, how long? Do your suppliers charge any more fees for this extension? If yes, how much?
12. What are the main constraints when you pay your suppliers?
13. What do you expect from your suppliers to ease the payment for the contract?
14. Do your suppliers suggest you to obtain loans from any financial institutions or international banks? If so, do your suppliers help facilitate obtaining the loan?
15. Do you currently wish to modernize your processing line? If yes, what specific equipment in the processing lines do you want to modernize?

16. Have you estimated how much this modernization will cost?
17. Would you be able to fund such modernization given your repayment capacity and access to loans?
18. If you are in need, what kind of financial assistance would be most useful for you?

Annex 3: Interview questions sent to ECAs of Denmark, the Netherlands, Singapore and Sweden

Questions to the Export Credit Agency of Denmark - EKF:

1. Under what circumstances does EKF do business with companies that have headquarters outside Denmark? What are the selection criteria?
2. How does EKF define commercial risks and non-commercial risks? Are there any risks that EKF does not classify as either commercial or non-commercial risks?
3. What documentation (audited annual reports, etc) in general does EKF require from companies (exporters and importers) when evaluating their request for guarantee/insurance?
4. Regarding the **Buyer Credit Guarantee & Supplier Guarantee:**
 - 4.1 Who initiates the request/ applies for the guarantee and what is the procedure?
 - 4.2 How do EKF assess the buyer's creditworthiness and how long does it take? Please specify.
 - 4.3 How long can this guarantee last if the buyer is from emerging market economy?
5. Regarding the **Export Loans:**
 - 5.1 Are Export Loans only obtainable for the buyer during times of crisis?
 - 5.2 What are the advantages of Export Loans over other loans offered by banks in general?
6. Does EKF distinguish between credit guarantee and credit insurance? If so, please specify.
7. How can trust be established among EKF, banks, seller and buyer especially if these entities do not have previous experience in working with each other?
8. Does EKF cooperate with international financial institutions (IFIs) such as the World Bank and the Asian Development Bank?
9. What is procedure for EKF to reimburse the bank/company/exporter if a buyer defaults on a payment? Please specify if this procedure is different from product to product. How long does this procedure normally take?
10. In the case of Marel Food Systems as the exporter and Vietnamese processors as the buyers, what products does EKF think are the most feasible for the two sides

given the fact that Vietnamese processors want to modernize processing equipment but lack funding? Short repayment periods appear to be among the most difficult constraints they face.

11. Has EKF provided any services or products in Vietnam? Please specify if any, and has EKF reimbursed for any default so far?

Questions to the Export Credit Agency of the Netherlands - Atradius:

1. Does Atradius distinguish between credit guarantee and credit insurance? If so, please explain?
2. What are the dominant products/ guarantees or services of Atradius in emerging market?
3. Among available products does Atradius provide Buyer Credit Guarantee, Supplier Credit Guarantee, and Export Loan?
4. How does Atradius assess the creditworthiness of importers, exporters and banks before issuing relevant guarantees?
5. What documentation (audited annual reports, etc.) in general does Atradius require from companies (exporters and importers) when evaluating their request for guarantee/insurance? Any general statement or comments about importers from emerging markets in terms of ability to provide required information, quality of information, creditworthiness etc. when Atradius evaluates them?
6. How long does it normally take Atradius to issue guarantee/ insurance to importers and or exporters?
7. How long can the guarantees generally last if the buyer is from an emerging economy?
8. How is the premium/ cost for relevant guarantees calculated (based on what criteria)? Do you have any technical books to show exactly how the formula used for the calculation?
9. What is the minimum amount of credit to have Atradius involved? And what is the maximum amount of credit that Atradius can cover in general?
10. What banks does Atradius prefer to work with, local banks of the importers or international banks?
11. What is procedure for Atradius to reimburse the bank/company/exporter if a buyer defaults on a payment?

12. Has Atradius provided any services or products in Vietnam? Please specify if any, and has Atradius reimbursed for any default so far?
13. In the case of Marel Food Systems as the exporter and Vietnamese processors as the buyers, what products does Atradius think are the most feasible for the two sides given the fact that Vietnamese processors want to modernize processing equipment but lack funding? Short repayment periods and high interest rate appear to be among the most difficult constraints they face.

Questions to the Export Credit Agency of Singapore - ECICS:

1. Does ECICS assess the creditworthiness of exporter and/or importer before issuing relevant insurance and/or guarantees? If yes, please specify the general procedure of this work.
2. How long does it normally take ECICS to issue relevant insurance and/or guarantees to exporter and/or importer?
3. How does ECICS define commercial risks and non-commercial risks? Are there any risks that ECICS does not classify as either commercial or non-commercial risks?
4. Does ECICS distinguish between credit guarantee and credit insurance? If so, please specify.
5. What is the minimum amount of credit to have ECICS involved? And what is the maximum amount of credit that ECICS can cover in general?
6. When should the applicant apply for a guarantee and/or insurance? During negotiations or after signing a contract?
7. What documentation (audited annual reports, etc.) in general does ECICS require from companies (exporters and importers) when evaluating their request for guarantee/insurance?
8. How are premiums calculated/determined in general among products that ECICS currently offers?
9. Does ECICS offer loans to foreign buyers?
10. Regarding the products Supplier Credit Finance and Buyer Credit Finance
 - 10.1 How is the premium calculated for these 2 products?
 - 10.2 How long can these guarantees last?

- 10.3 How much (in percentage) does ECICS cover for commercial and non-commercial risk?
- 10.4 Can the applicant only ask for either commercial risk or non-commercial risk insurance/guarantee?
11. What is procedure for ECICS to reimburse the bank/company/exporter if a buyer defaults on a payment or a buyer is insolvent? Please specify if this procedure is different from product to product. How long does this procedure normally take?
12. How can trust be established among ECICS, banks, seller and buyer especially if these entities do not have previous experience in working with each other?
13. Does ECICS cooperate with international financial institutions (IFIs) such as the World Bank and the Asian Development Bank?
14. In the case of Marel Food Systems as the exporter and Vietnamese processors as the buyers, what products does ECICS think are the most feasible and competitive for the two sides given the fact that Vietnamese processors want to modernize processing equipment but lack funding? Short repayment periods appear to be among the most difficult constraints they face.
15. Has ECICS provided any services or products in Vietnam? Please specify if any, and has ECICS reimbursed for any default so far?

Questions to the Export Credit Agency of Sweden - EKN:

1. How does EKN define commercial risks and non-commercial risks? Are there any risks that EKN does not classify as either commercial or non-commercial risks?
2. Does EKN distinguish between credit guarantee and credit insurance? If so, please explain.
3. What is the general procedure for EKN to assess the creditworthiness of importers, exporters and banks before issuing relevant guarantees?
4. What documentation (audited annual reports, etc.) in general does EKN require from companies (exporters and importers) when evaluating their request for guarantee/insurance?
5. How long does it normally take EKN to issue guarantee/ insurance to importers and or exporters?

6. When should the applicant apply for a guarantee? During negotiations or after signing a contract?
7. How is the premium /cost for relevant guarantees calculated (based on what criteria)?
8. Does the assessment of the buyer affect the premium rate or does it just helps EKN to see if the risk is acceptable?
9. How long can the guarantees generally last if the buyer is from an emerging economy?
10. What is the minimum amount of credit to have EKN involved? And what is the maximum amount of credit that EKN can cover in general?
11. How can trust be established among EKN, banks, seller and buyer especially if these entities do not have previous experience in working with each other?
12. What is procedure for EKN to reimburse the bank/company/exporter if a buyer defaults on a payment? Please specify if this procedure is different from product to product. How long does this procedure normally take?
13. Has EKN provided any services or products in Vietnam? Please specify if any, and has EKN reimbursed for any default so far?
14. What have EKN and the Icelandic ECA agreed to co-operate on so far? Is there any possibility for Icelandic companies to use products/services offered by EKN Sweden? If so, under what circumstances?

Annex 4: Entire itinerary of the field trip (from November 10 to November 30, 2011)

Date	Time	Description	Locations
Thursday, November 10	8:00	Flying from Keflavik to Copenhagen	
	14:30	Meeting with Professor Ari Koko – Director, Center for International Business and Emerging Markets. Copenhagen Business School (CBS)	Porcelaenshaven 24B, 3rd floor, Copenhagen
Friday, November 11	9:30	Interviewing EKF Denmark Ms. Grethe Beck Associate Director – Large Corporates	Dahlerups Pakhus, Langelinie Allé 17, 2100, Copenhagen
Saturday, November 12	11:15	Flying from Copenhagen to Singapore	
Sunday, November 13	6:15	Check-in Hotel in Singapore	
Monday November 14	9:00	Meeting with Marel in Singapore. Mr. Iben Wan – Sales & Marketing Manager Ms. Ryoichi Kurisaki – Area Sales Manager Troels Larsen – Technical Manager	13 Pioneer Sector 1, Singapore
	13:00	Interviewing ECICS Singapore Mr. Lua Too Swee – CEO Mr. Tin Chee Kiong – Head, Business Development Department	7 Temasek Boulevard #10-03 Suntec Tower One Singapore 038987
	17:40	Flying to Saigon	
Tuesday, November 15	8:00	Briefing with Marel in Vietnam Mr. Nguyen Van Phuoc – Head of RO	Marel’s Office in Saigon

Wednesday, November 16	10:30	Check-out and going to Dong Nai	
	14:00	Interviewing Processor Agifish Mr. Phung Quoc Khanh - Sales Manager Mr. Huynh Minh Thong - Accounting Officer	1234 Tran Hung Dao St., Long Xuyen City, An Giang, Vietnam
	16:00	Driving to Can Tho City and stay overnight	
Thursday, November 17	8:00	Check-out and driving to Processor Bianfishco	
	10:00	Interviewing Processor Bianfishco Mr. Tran Vi Nang - Vice General Director Ms. Tran Ngoc Loan - Vice Finance Director	Lot 2.17 Tra Noc Industrial Park II. Can Tho City
	13:30	Driving to Long Xuyen, stay overnight	
Friday, November 18	8:00	Check-out and driving to Processor Docifish	
	09:30	Interviewing Processor Docifish Mr. Dang Hien Si - Deputy General Director Ms. Tran Minh To Trinh - Chief Accountant	Zone C, SaDec IP, Tan Khanh Dong. SaDec town, Dong Thap
	14:00	Interviewing Processor Anvifish Mr. Bui Phu Kiet - Branch Director	High Way 91, Thach An, My Thoi, Long Xuyen City, An Giang
	16:00	Driving back to Saigon	
Saturday, November 19			
Sunday November 20			
Monday, November 21	Morning	Meeting with Olam Vietnam Ltd Mr. Rajiv Shah – CFO	in Saigon
	Afternoon	Meeting with IFC in Vietnam	

		Mr. Romel M. Carlos – Operations Officer Ms. Dang P. Anh – Associate Investment Officer	
Tuesday, November 22	Morning	Meeting Harvard Kennedy School – ASH Center Mr. Ben Wilkinson – Vietnam Program	in Saigon
	17:50	Flying to Hanoi	
Wednesday, November 23	10:00	Meeting Embassy of Denmark Ms. Nguyen Thi Thu Hang – Senior Program Manager Fisheries Sector	
Thursday, November 24	15:00	Meeting Embassy of the Netherlands Ms. Vu Thi Diep Economic & Commercial Officer	In Hanoi
Friday, November 25	10:55	Flying to Singapore	
Saturday, November 26	1:05	From Singapore to CPH	
	10:20	From CPH to Stockholm	
Sunday, November 27			
Monday, November 28	15:00	Meeting with EKN Sweden. Mr. Hjalmar Brundin Mr. Johan Fredriksson - Senior Country Policy Advisor	EKN - The Swedish Export Credits Guarantee Board Kungsgatan 36 P.O. Box 3064. SE-103 61 Stockholm
Tuesday, November 29		Meeting with Stockholm School of Economics Professor Torbjorn Becker – Director of Institute of Transition Economics Mr. Anders Engvall - Assistant Professor. China Economic Research Center	Sveavagen 65. Box 6501 SE- 11383 Stockholm Sweden.
Wednesday, November 30	13:20	Flying from Stockholm back to Keflavik	

Annex 5: Meetings and interviews implemented during the whole year when the thesis was written

Country	Meetings & Interviews with	Attendants	Remark
Denmark	Copenhagen Business School	Meeting with Professor Ari Koko – Director, Center for International Business and Emerging Markets. Copenhagen Business School (CBS)	Copenhagen
	Export Credit Agency - EKF	Ms. Grethe Beck - Associate Director, Large Corporates	Copenhagen
Iceland	Export Credit Agency - TRÚ	Gísli Benediktsson	Reykjavík
	Marel Food Systems	Mr. Sigurjón Elíasson - Marel Regional Manager Business Center Ms. Harpa Guðfinnsdóttir - International Sales & Service Network Coordinator	
	Promote Iceland	Erna Björnsdóttir	Reykjavík
Latvia	University of Latvia	First International Scientific Conference – presentation at the conference	Riga
The Netherlands	Export Credit Agency - Atradius	Mr. George van Praag – Senior Underwriter Asia & Turkey; Mr. Duuk Dudok van Heel – Account Manager	Amsterdam
	Marel Stork	Ms. Liliane de Nie - Marketing Intelligence Officer	Boxmeer
Singapore	Marel Singapore	Mr. Iben Wan - Sales & Marketing Manager Ms. Ryoichi Kurosaki - Area Sales Manager Mr. Troels Larsen - Technical Manager Mr. Lua Too Swee – CEO	Singapore
	Export Credit Agency - ECICS	Mr. Tin Chee Kiong - Head Business Development Department	Singapore

Sweden	Export Credit Agency - EKN	Mr. Hjalmar Brundin - Head of Unit Mr. Johan Fredriksson - Senior Country Policy Advisor	Stockholm
	Stockholm School of Economics	Professor Torbjorn Becker - Director of Institute of Transition Economics Mr. Anders Engvall - Assistant Professor. China Economic Research Center	Stockholm
Vietnam	Marel Vietnam	Mr. Nguyen Van Phuoc - Head of Representative Office	Ho Chi Minh city
	Agifish Processor	Mr. Phung Quoc Khanh - Sales Manager Mr Huynh Minh Thong - Accounting Officer	An Giang province
	Anvifish Processor	Mr. Bui Phu Kiet - Branch Director	An Giang province
	Bianfishco Processor	Mr. Tran Vi Nang - Vice General Director Ms. Tran Ngoc Loan - Vice Finance Director	Can Tho province
	Docifish Processor	Mr. Dang Hien Si - Deputy General Director Ms. Tran Minh To Trinh - Chief Accountant	Dong Thap province
	Olam Vietnam	Mr. Rajiv Shah - CFO	Ho Chi Minh city
	Harvard Kennedy School, ASH CENTER for Democratic Governance and Innovation	Mr. Ben Wilkinson - Vietnam Program Director	Ho Chi Minh city
	IFC in Vietnam	Mr. Romel M. Carlos - Operation Officer Ms. Dang Luu Phuong Anh - Associate Investment Officer	Ho Chi Minh city
	Danish Embassy, DANIDA program	Ms. Nguyen Thi Thu Hang - Senior Program Manager - Fisheries sector	Hanoi city
	Embassy of the Netherlands	Ms. Vu Thi Diep - Economic and Commercial Officer	Hanoi city

Annex 6: Slaughtering households & points



Equipped pig slaughtering house



Equipped chicken slaughtering house



An unequipped slaughtering point



Pig meat is transported to wet markets after slaughtering

Annex 7: Wet markets in Vietnam



Annex 8: Some photos in processing factory



Workers are slaughtering and filleting pangasius manually (at Docifish)

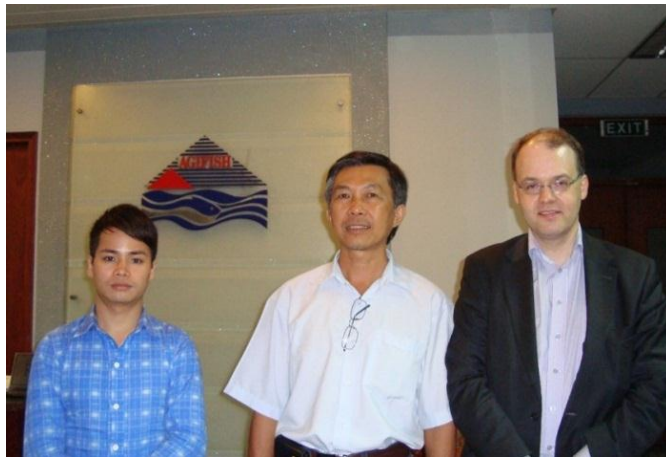


Workers are skinning and trimming fillets (at Anvifish)

Annex 9: Photos of the four selected companies



Anvifish Company



Agifish Company



Bianfishco Company



Docifish Company

