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Export opportunities of Dutch pork meat to Myanmar

Market research performed for the Netherlands Enterprise Agency to provide an overview of the pork meat supply chain in Myanmar and the export opportunities for Dutch pork meat to Myanmar.

By



Margot Frima
+316-47790165
M.frima@ibr-groningen.nl

Christian Brinks
+316-41900798
C.brinks@ibr-groningen.nl

Supervised by

Dr. E. H van Leeuwen &
Dr. B.J. W Pennink
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University of Groningen

Executive Summary

This report reflects the findings of both desk and field research of the Myanmar pork meat sector. This research answers the question: “Which export opportunities does the Myanmar pork meat sector offer for Dutch pork meat companies and how can these companies best exploit these opportunities?” The report conduct interviews with key actors in the Myanmar pork meat sector which include market experts, traders, importers, distributors, supermarkets, hotels, and restaurants. The interviews resulted in insights of the potential of the Myanmar pork meat sector and to which extent certain pork meat distributors are open for possible collaboration with Dutch investors. The main opportunities for Dutch companies aiming to conduct business with Myanmar are found in the export of pork rib, pork belly, or pork loin. These products have the highest demand for importers and distributors of pork meat in Myanmar. The demand for high quality meat has increased over the years comes from high end hotels and restaurants. However, it should be stated that the current pork meat supply chain is still at a very unprofessional level and needs some improvement with respect to cold storage solutions, cooling transport equipment, and setting rules and regulations with respect to hygiene and food safety. In addition, they need institutional strengthening with respect to data collection and government staff. Currently, there is not much pork meat imported to Myanmar even though the demand for high quality import meat is rising. Therefore, an early entrance aiming for a long term presence in the market with a long term investment could offer potential for Dutch investors.

Preface

This report results from a research conducted for the Dutch enterprise agency (RVO) and is part of the International Business Research (IBR). IBR is a research project aligned to the Faculty of Economics and Business of the University of Groningen. IBR conducts tailor-made in-depth market research for organizations with business activities or business interests in emerging markets; in 2018 China & Myanmar & Thailand. This report seeks to promote the cooperation between the Netherlands and Myanmar in the fields of exporting pork meat. If you wish to have any further clarification or support on this matter, please contact us or Frederik Heijnk, the agricultural counselor at the embassy of the Royal Kingdom of the Netherlands in Yangon/Myanmar. We would also like to thank him for his support and advice during our research period.

We would like to thank Myat Su Phyo and Zune, two Myanmar students from the computer science department of the University of Yangon, for their precious time, enthusiasm, and efforts helping us to get a better insight of the Myanmar pork meat sector.

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Table of content

1. Introduction	5
1.1 Method and structure	5
2 Introduction to Myanmar	6
Demographics	6
Political	7
Economic	7
Socio-cultural	8
Measurement system	9
3 Sector information	9
Consumption	9
.....	9
Production	10
Prices of pork meat	10
Import	11
Role of the government	12
4 The pork meat supply chain	13
4.1 Chain structure	13
4.2 Key actors and linkages	13
4.2.1 Farmers	14
Small scale farms	14
Medium scale farms	14
Large scale farms	14
4.2.2 Abattoirs	14
4.2.4 Street market vendors	16
4.2.5 Supermarkets	17
City Mart	17
4.2.6 Importers	18
4.2.7 Distributors	18
4.2.8 Local Traders	19
4.2.9 Hotels & Restaurants	20
Hotels	20
4.2.10 End consumers	20

4.3 Vertical integration	21
5 SWOT sector analysis	21
6. Conclusions and recommendations	24

1. Introduction

Myanmar's increasing population and its increasing consumer purchasing power has raised the demand for meat in Myanmar, including pork meat (The World Factbook, 2016). According to Dan and Ayako (personal communication, 2018) demand for pork meat in Myanmar is growing reflected by the increase in pig production. According to Dan and Ayako, the country is expected to show the world's biggest growth in pig production in 2030. This is partly due to the influx of tourists to Myanmar in the last 5 years which has raised the demand for more western meat (Trading Economics, 2018). As a result, this could raise the demand of retailers for imported pork which in its turn can offer new export opportunities for Dutch pork meat suppliers. Therefore, the RVO wants to envision the Myanmar pork meat sector and answer the following stated research question:

- *“Which export opportunities does the Myanmar pork meat sector offer for Dutch pork meat companies and how can these companies best exploit these opportunities?”*

The aim of this research is to map the export opportunities for Dutch pork meat companies. Data collection is collected through desk research, site visits and qualitative interviews with key stakeholders in the pork meat sector in the Netherlands and Myanmar. The information collected from the pork meat sector intends to inform Dutch companies about the export opportunities for pork meat. In case the study points out practical business opportunities for Dutch pork meat suppliers in Myanmar, they can make matchmaking interventions to set up potential collaborations between Myanmar distributors and Dutch pork meat suppliers.

1.1 Method and structure

For this report, information has been collected during both desk and field research. The information for the desk research has been collected through web searches and interviews and the information for the field research has been collected through face-to-face interviews in Yangon and Naypyidaw. In the first three weeks and the fifth week, in April and May 2018, interviews were conducted in Yangon with abattoirs, traders, importers, distributors, wholesalers, and retailers. In the fourth week, a representative of the Livestock Breeding and veterinary department in Naypyidaw was interviewed.

In this report, a description of the country chapter 2 is given. In Chapter 3 will provide sector information with respect to the pork meat sector in Myanmar. Furthermore, chapter 4 will outline the supply chain of the pork meat sector. Chapter 5 will provide a SWOT analysis in which the Strengths, weakness, Opportunities, and threats of the pork meat sector will be analyzed. Finally, chapter 6 will complete this report with some concluding remarks.

2 Introduction to Myanmar

Myanmar is a sovereign state in a political and economic transition. It has been recently reformed from a planned economy to a market-oriented economic and it also shifted from military rule to democracy. This has increased Myanmar's prospect for economic growth and will lead Myanmar to be one of the world's growing economies with an average growth rate of 7.1% over the next three years (The World Factbook, 2018). The following subsections will give a further introduction to Myanmar.

Demographics

Myanmar has a growing population of over 52 million inhabitants, shown in figure 1 (Trading Economics, 2016) with a growing urbanization rate of 38,8% in 2018 and an expected rate of 47,2% in 2040 (World Population Review, 2018). This means the increasing population of Myanmar is shifting from rural areas to the city. The capital city of Myanmar, Nay Pyi Taw, is the third largest city with almost 1 million inhabitants. The second largest city is Mandalay with 1.2 million inhabitants, and the largest city of Myanmar is Yangon with more than 4 million inhabitants (World Population Review, 2018).



Figure 1: Myanmar population chart in millions, retrieved from <https://tradingeconomics.com/myanmar/population>

Myanmar is a predominant Buddhist country with almost 90% of its population being Buddhist. Most of the people are Burmese, which accounts for almost 68% of the population. The other ethnic groups of Myanmar consist out of the Shan (10%) in the east, the Kayin (7%) in the southeast, the Rakhine (4%) in the west, and the overseas Chinese (3%). Religion has a large influence on the eating habits, especially with respect to eating meat. For instance, the consumption of swine and pork meat is prohibited by the dietary laws for Muslims. Orthodox Buddhists avoid eating meat and fish out of respect for life. However, eating meat is not strictly forbidden in Buddhism. According to the Buddhist religious dietary code, if animal flesh is eaten, the animal should be killed by non-Buddhists. Hence, Buddhism does not prohibit the consumption of pork meat.

Most of the Myanmar people live in the two largest cities of Myanmar, Yangon (4,4 million) and Mandalay (1,2 million) (The World Factbook, 2018). Both cities are strategically located; Yangon is strategically located near the sea and Mandalay is centrally located which makes both cities easily accessible for water transport. However, this does make them prone to

natural disasters also reflected by their ranking in the Global Climate Risk Index where Myanmar ranks second.

Political

Myanmar currently has a democratic system even though the military still has strong political power. A gradual liberation began in 2010 and the military rule officially ended in 2011 eventually leading to free elections in 2015. In 2016 a government was installed led with former Nobel peace prize winner Aung San Suu Kyi (BBC, 2018).

The role of the president who was assigned at the end of the military was largely ceremonial, as Aung San Suu Kyi was effectively leading the government. Aung San Suu Kyi was largely loved by the people of Myanmar; however, she was accused of being involved in the ethnic cleansing of the Rohingya Muslim minority in Myanmar. The United Nations stated that the Rohingya were victims of ethnic cleansing at the hands of the Myanmar military. As a result, this damaged the new government's international reputation and again displayed the power of the military in Myanmar (BBC, 2018). Currently, the political leaders have called for a peace process in order to move forward and insisting all armed ethnic groups to sign the Nationwide Ceasefire Agreement (NCA). This conference is an effort by the government to try and end decades of armed conflict between the military and the armed ethnic groups. (Myanmar Times, 2018). New elections will be held in 2020 to elect a new government.

Economic

As mentioned, Myanmar is currently one of the fastest growing economies in the world with an expected average annual growth rate of 7.1% (The World factbook, 2018). This growth rate has been volatile between the 6 and 7.1% for the past few years. According to The World Factbook (2018), this is mainly caused by the attractive investment climate due to Myanmar's abundant natural resources and young labor force. In addition, the government is focusing on accelerating agricultural productivity and land reforms, modernizing and opening the financial sector, and improving transportation and electricity infrastructure. They even passed a foreign investment law that strengthened investment regulations and eases the investment process also passed a law that eases rules on foreign ownership of business for companies (The World Factbook, 2018). In figure 2 the currency rate of dollars to MMK is outlined. In this figure you can see that the currency exchange is inclining through the years. Throughout this whole paper the exchange rate from kyat to dollar will be 1 dollar for 1350 kyat, on the average exchange rate of 2018 so far, retrieved from www.xe.com. In addition, the exchange rate from kyat to dollar will be 1 euro for 1650 kyat.



Figure 2. Dollars to Myanmar Kyat chart from 2014 to 2018, retrieved from <https://www.xe.com/currencycharts/?from=USD&to=MMK&view=5Y>

Socio-cultural

Manifesting a personal relationship plays a large role in the Myanmar business culture. Professional relationships are based on hierarchy and third-party introductions are highly valued, as Myanmar people prefer to conduct business with people they know and trust. Business is conducted on slow terms and therefore time and patience is needed to build a trustful business relation. Currently, Myanmar ranks on the 171st place of ease of doing business, however, the Myanmar government is trying to reach the top 100 by 2020, according to the vice president of the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI), U Myint Schwe (Thiha Ko Ko, 2018).

Infrastructure

Myanmar is the second-largest country by area in South-east Asia with only 20% of its road network paved and therefore possesses large investment opportunities in improvement of their road infrastructure. In addition, the government is also planning in developing the transport sector with respect to improving the regional airports (Myanmar Infrastructure Summit, 2018).

Another area of attention is Myanmar's telecoms infrastructure. IFC (International Finance Corporation) calculated that an additional 10.000 towers are required to provide Myanmar with full coverage. Moreover, the Myanmar government is also trying to support the expansion and further development of the mobile network to improve Myanmar's global connectivity. Even though the government is investing in these fields, the mobile and internet network already are up to Dutch standards in most parts, especially the cities, of the country.

Lastly, the government is trying to attract financing for the improvement of the national electricity grid. Currently, only 33% of the population has access to electricity and by 2030 Myanmar is expected to consume six times more electricity than its current consumption (Myanmar Times, 2016). The consequence of this large inaccessibility to electricity is that demand for fresh meat is increasing as people are unable to store meat. More than two thirds of the population is unable to store meat which makes the existence of wet markets inevitable in Myanmar. Even though the government is trying to attract financial aid, it is still

not economically viable to invest in extending its cable network to areas which are geographically unsuitable or scarcely populated (Myanmar times, 2017). However, there are companies trying to develop the electricity network by implementing new technology. The aim of the government for all these developments is to close the infrastructure gap and eventually achieve sustainable growth.

Measurement system

Myanmar was one of the three countries that have not adopted the metric system yet. In 2013 they have decided to adopt the metric system in order to more easily trade with their trade partners (Eleven Myanmar, 2013). Most of the Myanmar people still use Burmese units, especially the older generation. Throughout this report we have also used peittha as a unit of measurement which translates to 1,623 kg.

3 Sector information

Consumption

The pork meat sector in Myanmar gets its meat delivered either via own production or via imports. Myanmar is considered a self-sufficient country with respect to meat and therefore meat is rarely imported and only a small amount of meat is imported for the consumption of some high-end hotels. The three most popular pork meat products, besides offal, consumed in Myanmar are gained from the pork belly, pork loin, and pork rib. These parts are mostly imported into Myanmar and sold to high-end hotels and restaurants (Than Linn Aung, personal communication). In addition, offal meat is very popular by the Myanmar people, however, it is very hard to compete with the low local prices and therefore this report will focus on the meat products sold in high-end hotels and restaurants.

The strengthening economy and the rising middle class of Myanmar are positively influencing meat consumption. Figure 7 shows the per capita pig consumption of Myanmar from 2010 until 2016 and indicates that the consumption is increasing over the years. Due to the rapid growth of the Myanmar middle class, people are more looking for alternatives for the relatively cheap chicken meat.

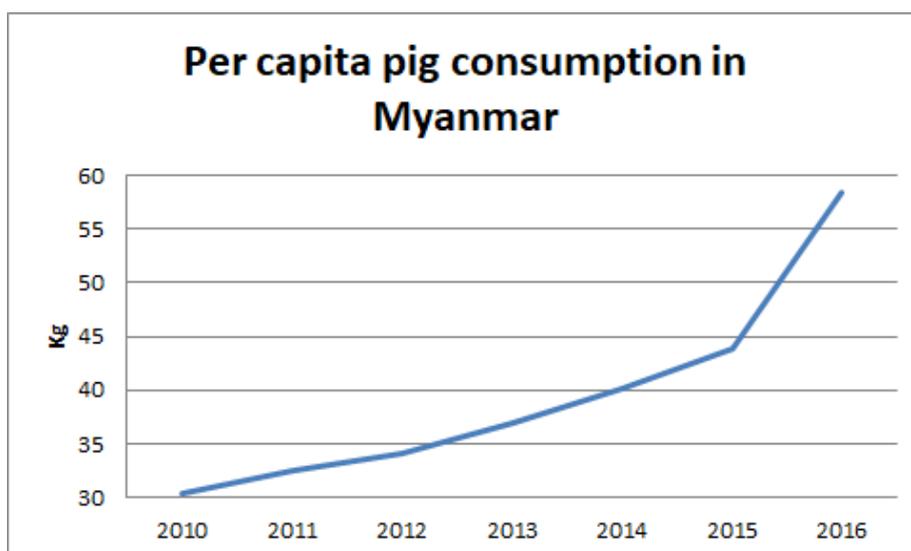


Figure 3: Pork meat consumption per capita, retrieved from http://wepa-db.net/3rd/jp/meeting/20170221/PDF/12_S2-2_2_Myanmar_0215_pig%20waste%20water%20management%20in%20Myanmar.pdf

Production

The farming of pigs is largely dominated by backyard production and therefore commercial pig farming shares only a small portion of total pig production. In addition, the production of pork meat (meat, with the bone in, of domestic or wild pigs, whether fresh, chilled or frozen) rose from 576.103 tonnes clean meat in 2013 to more than 874.000 tonnes in 2016 (see table 2). This accounts for almost 30% of the total meat production of Myanmar in 2016 (see figure 3). The current local production of pigs and pork meat in Myanmar is fragmented and often used for home consumption (F. Fishlock, personal communication, April 2018). Yet, the production of pork meat in urban areas is increasing since the population is shifting from rural to urban areas (Hla Hla Thein, 2017). Even though accurate data is hard to come by, Myanmar is expected to be the largest pig producers in the world before 2030 (Dan and Ayako, personal communication). Furthermore, according to Ayako Ebata and Dan Tucker (personal communication), the production of pigs is organized on three levels, namely, small scale, medium scale, and large scale farms further discussed in chapter 4.2.1.

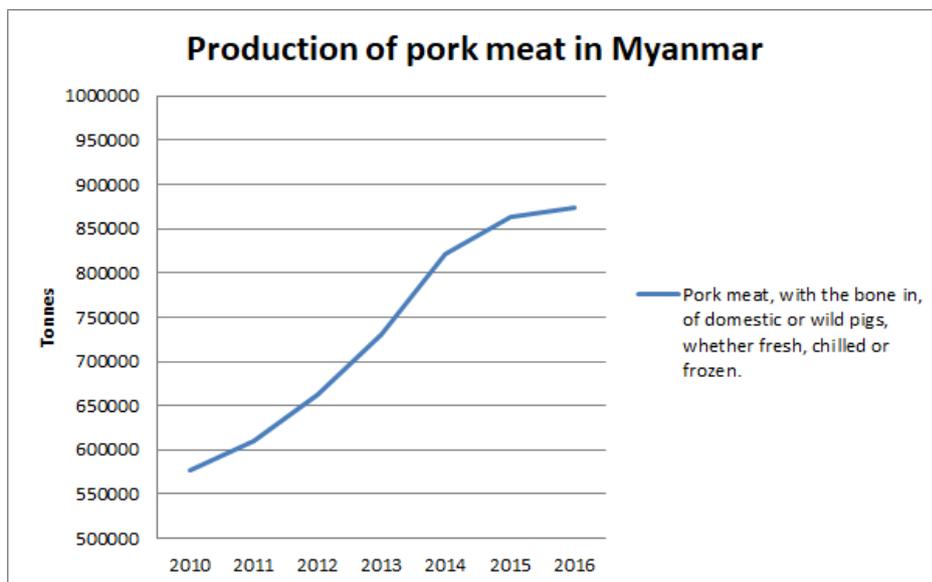


Table 2. Livestock primary chart. (2016), retrieved from <http://www.fao.org/faostat/en/#data/QL>.

Prices of pork meat

There is no data readily available on either import prices or local prices and therefore the prices shown in table 1 are from interviews conducted with sellers from the wet market and importers. Table 1 shows the average price in kyat per kilogram of the three most popular pork meat products according to the interviewed sellers. Contact information of these sellers can be found in appendix A2.

Product	Local price (wet market) Kyat/KG	Import price Kyat/Kg	Retail (Supermarkets) Kyat/Kg
Pork loin	6000-7500	8000-10000	15000-20000
Pork belly	4000-6000	10000-13000	15000-20000
Pork rib	4000-6000	7000-10000	15000-20000

Table 1: Main pork meat sales prices and estimated margins (lowest to the highest price), retrieved from personal communications.

According to Sous Chef Dae Yong Lee, the average price of local meat is around half the price of imported meat. The high end restaurants generally pay around 5000 Kyats per peittha or 1.6 kg which translates into 3 dollars a kilo.

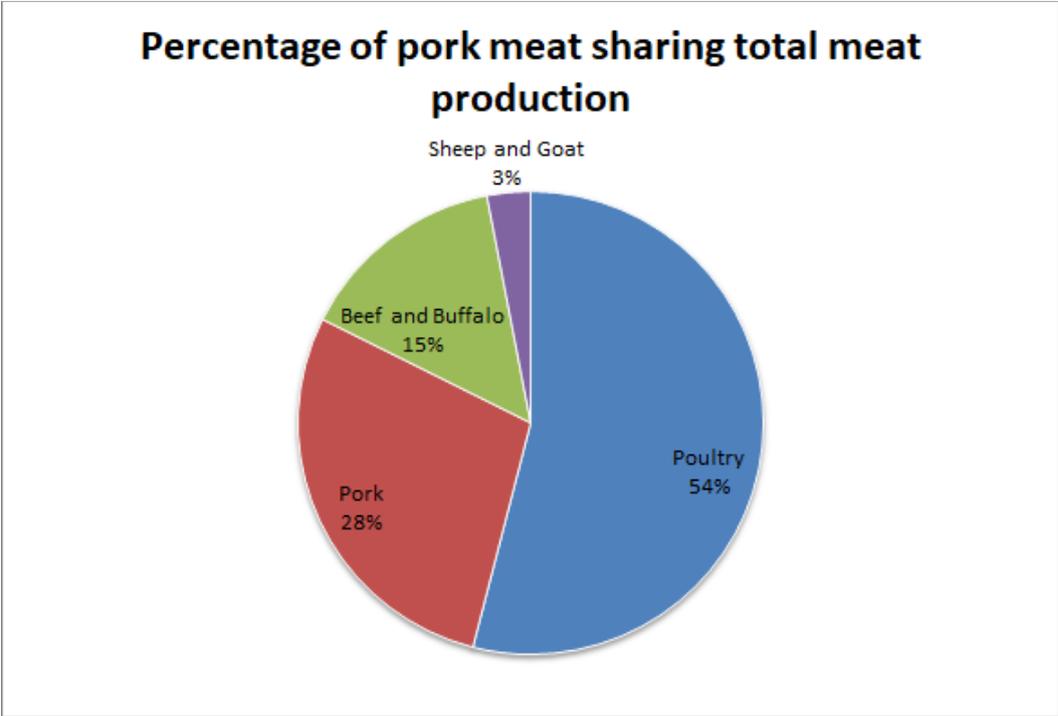


Figure 4: Percentage of pork meat sharing total meat production. Retrieved from <http://www.fao.org>

Import

The previous military led government was very cautious about the import of meat as they thought it would unease the local farmers (Hla Hla Thein, 2017). Furthermore, the inconsistent and unclear import rules have limited number of active importers in Myanmar. However, since the establishment of the Meat Industry Board (MIB) in 2014, the clarity of the rules and regulations with respect to the import of meat has improved. The MIB is established to manage the meat imports and, in cooperation with the government, prevent frozen meat to be smuggled into Myanmar (Myanmar Business Today, 2015). This is also reflected by the amount of pork meat imported in the last 5 years (see figure 5).

The demand for foreign pork meat is increasing, however the local pork meat prices are relatively cheap compared to imported pork meat (Yin, 2015). The main difference between imported meat and local meat is the texture of meat and the skin. Western people, for instance, favor softer meat with less tough skin in contrast to Myanmar people who prefer tougher meat (Dae Yong Lee, personal communication).

Currently, only high-end hotels and some tourist restaurants are driving the demand for imported meat. Moreover, the imported meat is mostly targeted to foreign visitors which have increased over the past few years. However, the import data for pork meat is limited since the products are mostly directly supplied to high-end hotels or supermarkets, and often came via Singapore (U Win Sein, 2015). Figure 5 shows the quantity of pork meat imported from 2010 till 2016.

Currently, a vast majority of pork meat is imported from Thailand as the texture and taste are preferred by the guests and customers of hotels and restaurants (Saw Htun Aung, personal communication). According to Sous Chef Saw Htun Aung, the most popular product imported from Europe is Iberico ham from Spain as it is considered high quality and matching the taste of hotel guests.

The transportation and distribution of food is struggling to keep up with these numbers. Currently, Singapore serves as the main logistics center for foreign meat shipments destined for Myanmar. In addition, Myanmar lacks the infrastructure to handle and distribute the large volumes of frozen meat. Currently, only the larger cities, Yangon and Mandalay, have several modern supermarkets with cold chain, while other cities lack them (Hla Hla Thein, 2017).

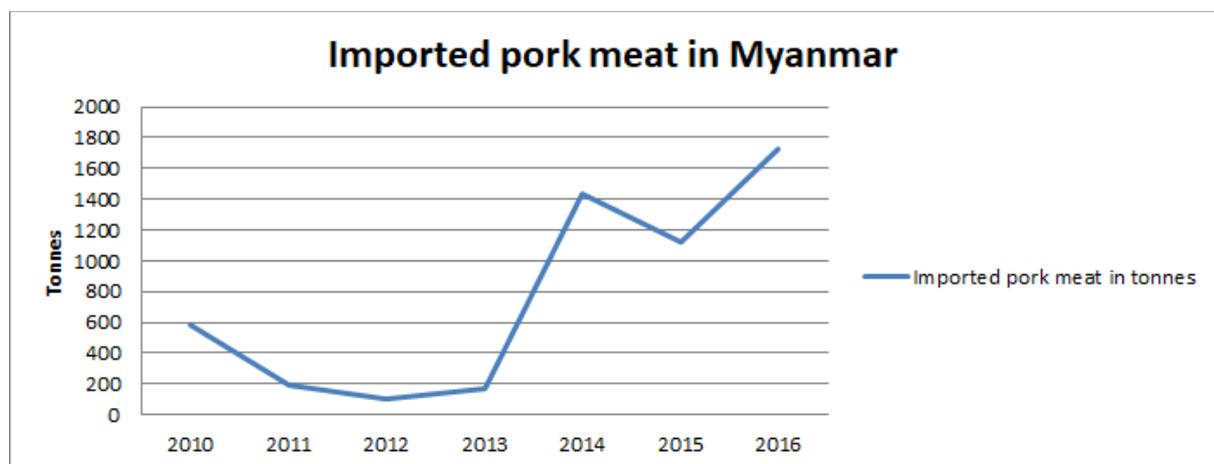


Figure 5: Pork meat imports in Myanmar in tonnes retrieved from FAOstat.

Role of the government

Throughout the whole pork meat supply chain there is some control present from government institutions. However, the power of the government is relatively low in comparison to the other links in the supply chain. The livestock breeding and veterinary department (LBVD) manages the legal issues concerning meat and animal health in Myanmar. According to Hnin Thidar Myint from the LBVD, the governmental institutions that should be controlling, for instance, the hygiene standards have too few staff to check everything. The government is currently not focusing on improving these institutions and therefore it is hard for the staff to keep track on everything that happens in the pork meat

sector. However, there has been raised awareness for improvement of, for instance, hygiene standards by different companies who want to enter the market.

Furthermore, as mentioned before, the Meat Industry Board established in 2014 is in control of the rules and regulations with respect to meat imports. Even though there are no rules and regulations regarding the export of pork meat to Myanmar, there are rules and regulations regarding the import of pork meat into Myanmar. These rules and regulations can be found in appendix B.

4 The pork meat supply chain

The pork meat supply chain in Myanmar consists out of many players and links between the farmer and the end-consumer. This section will describe all its actors and their role within the supply chain.

4.1 Chain structure

The pork meat supply chain consists out of many resellers who purchase local meat from the wet markets and sell it to another party (see figure 6). These resellers consist out of supermarkets, importers, distributors, local traders, and street market vendors. The slaughterhouses, which source their pigs from local farmers, process it and sell it to buyers from the wet markets. Then the pigs are cut into smaller pieces and resold again to resellers. According to Fred Fishlock (personal communication, 2018), the current pork meat supply chain is at a very unprofessional level with generally no cold chain involved.

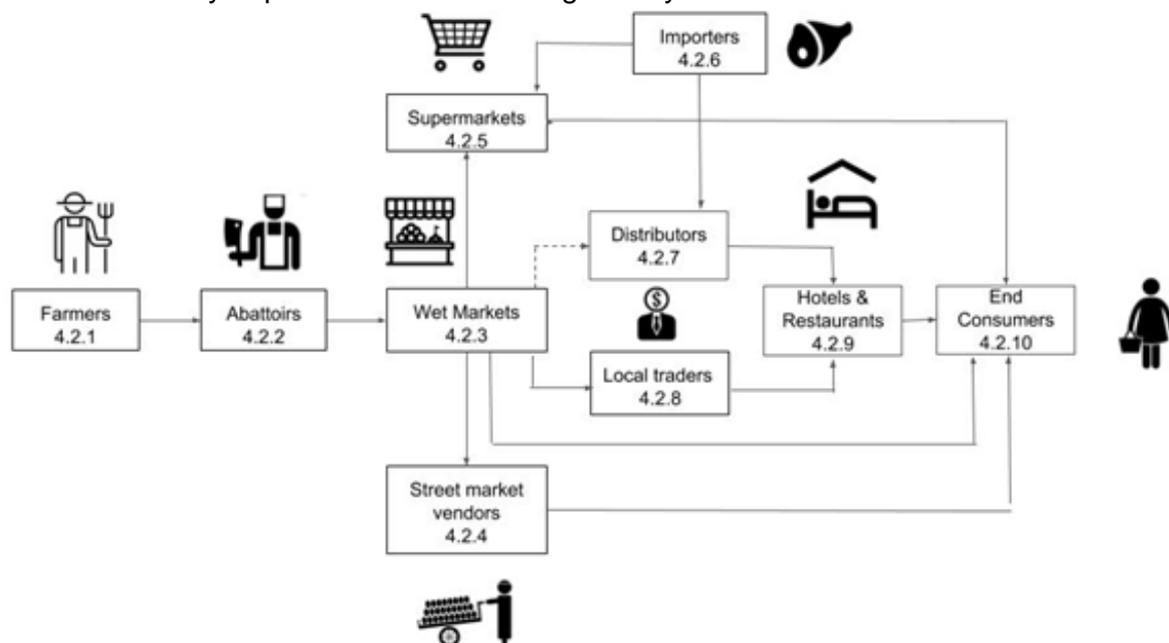


Figure 6: The pork meat supply chain

4.2 Key actors and linkages

This section will describe all the key actors in the pork meat supply chain of Myanmar. In addition, it will describe how these key actors link, where they source their product, and how they transport it to the next player.

4.2.1 Farmers

As mentioned, the production of pigs is organized on three levels, small scale, medium scale, and large scale farms.

Small scale farms

The small-scale farms usually have a production of one to four pigs a year and are dominated by backyard production where people breed and slaughter pigs for home consumption. The quality of the pigs is low and is sometimes considered to be used as secondary source of income (Dan and Ayako, personal communication).

Medium scale farms

The medium scale farms usually have a production of 10 to 100 pigs a year and are produced for commercial use. They use commercial feed and are also vaccinating their pigs. They are more focused on competition and are trying to be as efficient as possible to stand the competition.

Large scale farms

The large scale farms usually have a production of more than a 100 pigs a year and are producing on a commercial scale in the bigger cities of Myanmar. Currently, there are only a few commercial pig farms in Myanmar. These farms have a high productivity level and supply their pigs to the abattoirs. The largest company involved in commercial pig farming is CP Myanmar who is currently working on their own breeding farm in Myanmar (Dr. Hnin Thidar Myint, personal communication).

4.2.2 Abattoirs

Abattoirs, or slaughterhouses, are located in the Insein and east Dayton township in Yangon and have control of the total supply of local pork meat to the wet market. An abattoir is a facility where pigs are sourced from local farmers, processed into smaller pieces, and transported to one of the wet markets of Yangon.

The 14 abattoirs in the east Dagon Township, shown in figure 5, of Yangon are clustered on a campus and the leading abattoir supplies around 50% of the total supply to the wet market (Zaw Gyi, personal communication). This is equivalent to 250 pigs a night and around 60 per hours. They start processing at 9:30 p.m. and generally end at 2:00 a.m. in order to supply to the wet market before 3:00 a.m. During the transportation of pork meat to the wet market, there is no cold chain and everything is freshly delivered. The abattoirs do not use a predetermined profit margin as they value every pig differently. Table 3 shows the average price an abattoir pays for the purchase of one pig and how much they ask for one processed pig.

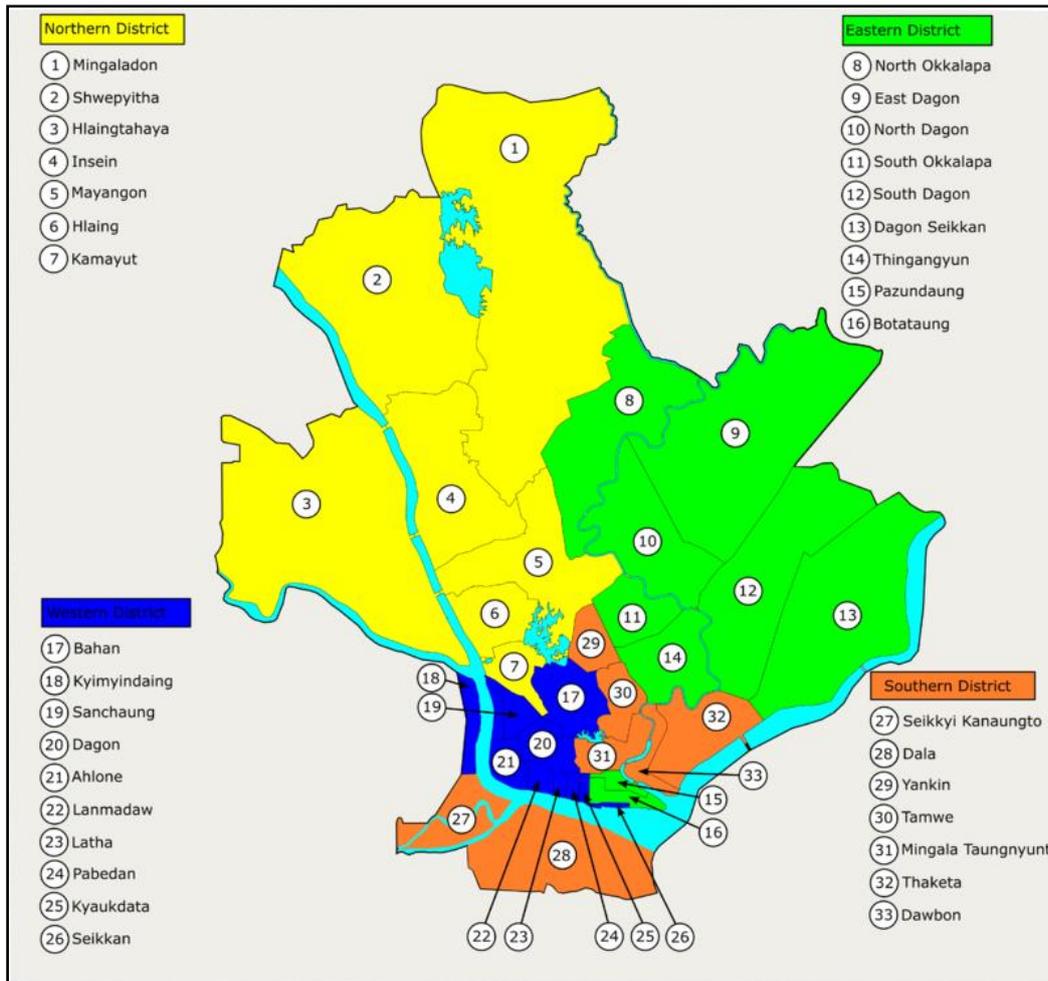


Figure 7: The townships of Yangon, retrieved from <http://www.ycdc.gov.mm/content.php?page=townshipmap>

The hygiene standards of the abattoirs are low because there are no hygiene standards set for meat processing in the abattoirs. According to dr. Hnin Thider Myint from the Myanmar Livestock Breeding and Veterinary Department (LBVD), this is due to limited capacity and time-consuming testing for livestock samples from farms and abattoirs for signs of disease. Staff worked hard to deliver a good service, but with limited facilities and staff members, it was hard to check all the produced meat. However, new equipment is now speeding up processes and enabling both a new efficiency and new confidence in results. In addition, the Food and Agriculture organization of the United Nations has identified seven priority outcomes covering a number of priority areas in Myanmar. One of which is the improvement of food safety and quality and the increase of agricultural production to enhance food security.¹

	Weight	Price
Purchase	1 peittha (1.6 kg)	7000 Kyat ¹
Sale	1 peittha (1.6 kg)	9000 Kyat ¹

Table 3: Average weight and price of the purchase and sale of one pig, retrieved from personal communications.

¹High price elasticity

4.2.3 Wet markets

The wet markets in Myanmar play a crucial role in the pork meat supply chain since the processed pigs from the abattoirs are only sold on these markets (Zaw Gyi, personal communication). There are several wet markets located in Yangon which are dispersed over town. The pictures below show the Than Zay market located in the Lanmadaw township in Yangon (see figure 7). These markets offer a mixture of fresh food products which range from large varieties of vegetables to large varieties of meat.



Picture 1: Than Zay market in the Lanmadaw Township, Yangon

4.2.4 Street market vendors

Street market vendors are found in clusters in the main townships of Yangon. They buy their pork meat from either the Than Zay market or one of the other wet markets in Yangon. The most popular product offered by these street market vendors is wet thar dote too, which translates to pork on a stick made out of pork offal. The quality of meat is poor since the meat is transported without cooling and offered without cooling.



Picture 2: street market vendors

4.2.5 Supermarkets

The two biggest supermarket chains in Myanmar are Capital Hypermarket and City Mart Holding which both offer local and imported pork meat. City mart uses their own pork meat suppliers; their local meat is supplied by individual traders who cut the pigs in smaller pieces and delivers the meat freshly and unpackaged to City Mart.

City Mart

City Mart is part of City Mart Holdings which is part of the largest retail chain of Myanmar. They have their own distribution center where they process and package pork meat into store ready products, shown in appendix C. They make use of their own suppliers which consists out of two local suppliers and two international suppliers. The two local suppliers have their own shop on the wet market and source their pork meat from the slaughterhouses and only sell it directly to City Mart. The two international suppliers (CP and kipcan) source their meat from Thailand and deliver it freshly with trucks to the City Mart Distribution center. All the suppliers deliver it in quantities of two kilos cut into smaller pieces and packaged by the employees of the distribution center. The distribution center is located in the Thaketa township in Yangon and distributes pork meat to all the City Mart and Ocean stores in Yangon. The meat always gets delivered freshly in trucks with cooling systems. They set their own quality standards where they check for color, size, weight, texture, and temperature (Kyaw Kyaw Myint, personal communication). The whole process from the inventory of pork meat until the storage are shown in the pictures of appendix C which show that City Mart makes use of an organized and hygienic process. Firstly, the meat arrives in large chunks which are checked for temperature, size, texture and other quality specification. An example of their meat operation manual can be found in appendix D. Secondly, the meat will be transferred to the meat processing room. Here, the meat will be cut into smaller pieces and transferred to the labeling room. Thirdly, the meat will be labeled and packed in the meat labeling room. Finally, the packed meat will be stored in a large cooling room and brought to the supermarkets.

City Mart offers a large variety of local and imported meat. Table 6 below shows the average purchase and selling price of the three most popular pork meat products of City Mart.

Product	Purchase price/kg	Sale price
Pork loin	7000-8000 Kyat	15000-20000 Kyat
Pork rib	7000-8000 Kyat	15000-20000 Kyat
Pork belly	7000-8000 Kyat	15000-20000 Kyat

Table 6: average purchase and selling price for City Mart’s Pork loin, rib, and belly

4.2.6 Importers

The import of pork meat is dominated, with 80% of the total supply, by Top Home-made Foodstuff Trading Co., Ltd (Sann Thwin, personal communication). They import different parts of the pig based on the demand of their customers which are predominantly high end hotels and restaurants. They mainly source their pork meat from import and source only 15% from the wet market. Furthermore, they make use of cold storage where they store pork meat in large privately owned warehouses to decrease their price fluctuations. They work together with distributors who help them with the distribution of pork meat to their customers. The import quantities of Top Home-made Foodstuff Trading Co. are discussed below and shown in table 8.

4.2.7 Distributors

Distributors are companies who source pork meat either directly from abroad or via importing companies and sell it again to hotels and supermarkets. Table 7 shows the four leading distributing companies of pork meat in Yangon and their clients.

Premium Distribution co., Ltd. is a subsidiary company of City Mart Holding and is currently the leading distribution company in Myanmar specializing in retail, food service, and non-food products. They have control of their own importing and distribution process and mostly import from Europe. They import 80% of their products from Europe and the other 20% from other Southeast Asian countries (Nay chi sett, personal communication). Furthermore, Premium Distribution uses cold chain facilities to store their imported products. They deliver their imported pork meat packaged and either store it or directly transport it to a hotel or restaurant. In addition, they have their own butcher department which can cut the imported pork meat into smaller pieces if demanded by their customers.

Zenith Best Products Co., Ltd. is a distribution company sourcing pork meat from importers and selling it to high-end restaurant and hotels. They work together with Home-Made Foodstuff Trading and help them with the distribution of pork meat.

Marbled black Co. is an importer and distributor of pork meat who started importing in 2014. Currently, they are one of the leading import and export companies in Myanmar and specializes in both premium beef and pork products (Htoo Maung, personal communication). There are no data readily available on the quantities imported by the four leading importers and therefore the data collected is based on interviews conducted with the managers of the leading distributing companies (see table 7).

Company	Function	Clients
Top Home-made Foodstuff Trading Co., Ltd.	Importer	Pan pacific, Lotte Hotel, Seeds Restaurant, Rose garden hotel, Park Royal, Novotel
Premium Distribution Co., Ltd.	Importer and distributor	Pan pacific, Lotte Hotel, Seeds Restaurant, City Mart
Marbled black Co.	Importer and distributor	Pan pacific
Zenith Best Products Co., Ltd.	Distributor	Mainly distributes the meat of Top Home-made Foodstuff Trading.
METRO Wholesale	Wholesaler	N.a.

Table 7: overview of pork meat distributors in Yangon²

Company	Quantity (in tons)
Premium Distribution Co., Ltd.	1 (Spain, USA)
Marbled black Co.	1 (Spain, USA)
Top Home-made Foodstuff Trading Co., Ltd.	10-15, (2 containers, 40 feet) Germany 5-7, (Spain) 6-7 (Thailand)

Table 8: overview of estimated import quantities of pork per month.

Since the government does not have the capacity to collect all the data, the distributors and importers lack knowledge about the market. Among all these distributors and importers there is chronic information poverty with regard to the prices, quantities, and market share of their competitors. As a result, it is hard for all these companies to establish competitive prices.

4.2.8 Local Traders

Traders are independent sellers of pork meat who only source from the wet market and distribute it to the hotels and restaurants. They do not make use of cold chain during the transportation process and try to sell it as fast as possible after purchasing it from the wet market (Than Linn Aung, personal communication).

² This figure is based on the conducted interviews with Pan pacific hotel, seeds restaurant, Lotte hotel, Novotel, Park Royal Hotel, and Rosegarden hotel.

4.2.9 Hotels & Restaurants

Hotels

The number of hotels in Myanmar have increased since 2012 . The increase in tourist arrivals has increased in demand for hotels which is reflected by the growing number of hotel rooms (see figure 8). These hotels source their pork meat from different suppliers and choose the one with the best ratio of price and quality (Dae Yong Lee; Saw Htun Aung, personal communication). The hotels pay around half the price for local meat compared to imported pork meat. The hotels base their purchase behavior on the demand of the guests (Saw Htun Aung, personal communication). The contact information of the interviewed hotels can be found in appendix A1. The majority of the hotels and restaurant import high quality meat from different countries in the world. According to Sann Thwin (personal communication, 2018), the total volume of the import of pork meat is around 45-50 tonnes a month and is spread out over the high end hotels and restaurants.

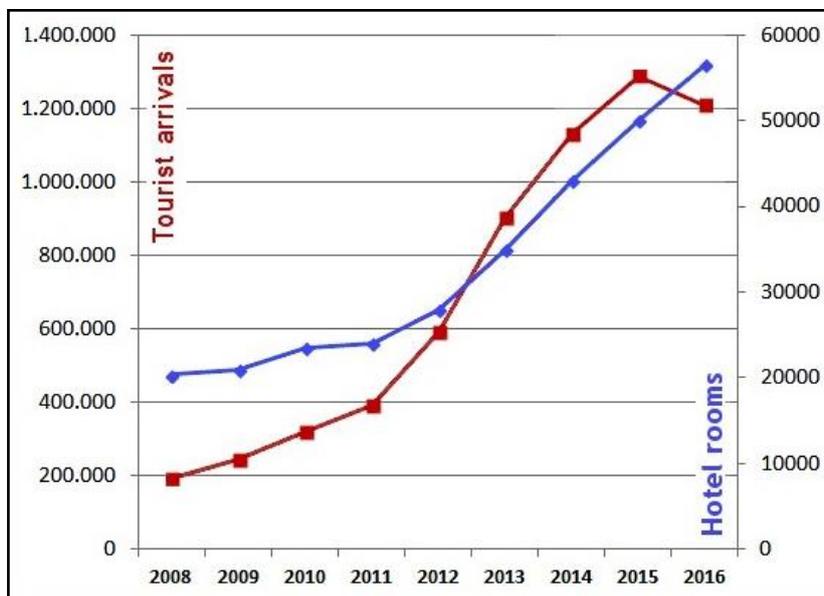


Figure 8: Myanmar tourism graph from 2008-2017, retrieved from <http://bytelife.altervista.org/pophotels.htm>

Restaurants

There are several high-end restaurants located in Yangon who only offer imported pork meat and often have the same supplier. Appendix A2 shows the contact information of the interviewed restaurants.

4.2.10 End consumers

As mentioned before, Myanmar is a rapidly increasing consumer market with over 52 million inhabitants with only 4% Muslim people who are not allowed to eat pork due to religious beliefs. This leaves almost 50 million potential pork meat consumers. The Myanmar people distinguish themselves from western people with respect to meat preference. Myanmar people prefer to chew on meat and prefer a rather thorough texture and skin.

Furthermore, the middle and upper class in Myanmar is expected to double its size in 2020 according to the 2013 report released by Boston Consulting Group (BCG). According to the BCG report, in 2013 only four out of every 10 consumers in Myanmar frequently visited a restaurant which is expected to double in 2020. Hence, the increasing consumer market in

combination with the expected growth of the middle and upper class shows investment potential for export of high quality pork meat to Myanmar.

4.3 Vertical integration

Besides the large importing and distributing companies, there is no use of cold storage or cold chain which shows the pork meat sector is at an unprofessional level (F. Fishlock, personal communication). However, there are companies trying to professionalize the supply chain to raise the quality to a higher level. For instance, Metro-wholesale is trying to vertically integrate the whole process from farmer to retailer to increase the consistency and traceability of pork meat. Furthermore, Metro is trying to set up a one-stop food distribution system where they will source products locally and sell it directly to high-end hotels and restaurants. They have signed a joint venture with Yoma Strategic Holdings where they will try to improve the B2B wholesale business and they are planning to start their business in October 2018. Moreover, they want to improve the heavily underdeveloped farming business and, even though it will be a slow process, they want to improve the hygiene standards of the abattoirs by, for instance, creating awareness of the need for food safety (F. Fishlock, personal communication). Their goal is to become market leader with respect to the import and distribution of pork meat.

Besides Metro-wholesale there are also other companies that would vertically integrate. For instance, the Thai company CP wants to integrate forward and want to improve the professionalism of slaughterhouses (Myo Thant, personal communication). Lastly, Home-made Foodstuff Trading wants to vertically integrate backward as it's already negotiating to open its own breeding farms (Sann Thwin, personal communication).

Hence, even though the pork meat sector is underdeveloped, there are companies intensively trying to improve it.

5 SWOT sector analysis

This section will provide an overview of the strengths, weaknesses, opportunities, and threats of the pork meat sector in Myanmar. This will be summarized in a SWOT analysis which consists out of an internal analysis and an external analysis. Table 9 shows the SWOT internal analysis and table 10 shows the SWOT external analysis.

Internal Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none"> Large consumer market with more than 52 million inhabitants. 	<ul style="list-style-type: none"> No clear policies and regulations with respect to hygiene standards
<ul style="list-style-type: none"> Strategic location as Myanmar is easily accessible via water transport. 	<ul style="list-style-type: none"> Lack of knowledge with respect to food safety and hygiene standards.
<ul style="list-style-type: none"> Myanmar is open for collaboration and international support to improve the sector. 	<ul style="list-style-type: none"> No clear organization (public/private) and trade facilitation (yet) for export of meat or meat products (Fresh/frozen pork) to Myanmar
<ul style="list-style-type: none"> Myanmar Ministry of Agriculture, especially LBVD, is actively trying to improve hygiene standards. 	<ul style="list-style-type: none"> Almost no cold chain infrastructure available throughout the whole value chain.
<ul style="list-style-type: none"> Only a few import rules and regulations with respect to pork meat. 	<ul style="list-style-type: none"> Low market transparency between the distributors of pork meat.
	<ul style="list-style-type: none"> Lack of consistent quality of pork meat
	<ul style="list-style-type: none"> Low traceability of pork meat throughout the whole chain.

Table 9: SWOT internal analysis

External Analysis	
Opportunities	Threats
<ul style="list-style-type: none"> Rising middle and upper class which creates more demand for pork meat. 	<ul style="list-style-type: none"> Rakhine issue: International community perception may result in decrease in international support.
<ul style="list-style-type: none"> Small activity of vertical integration leads to a more professionalized value chain. 	<ul style="list-style-type: none"> Lack of government budget to focus on the improvement of food safety and hygiene standards
<ul style="list-style-type: none"> Large influx of tourists increases demand for western pork meat. 	<ul style="list-style-type: none"> Low prices due to low profit margins of traders
<ul style="list-style-type: none"> Increasing consumption of western pork meat. 	<ul style="list-style-type: none"> Time consuming process to get FDA approved (2 months for 1 product)
<ul style="list-style-type: none"> Presence of climate controlled warehouses. 	
<ul style="list-style-type: none"> High willingness to distribute (import) western pork meat 	
<ul style="list-style-type: none"> High demand for consistent quality 	

Table 10: SWOT external analysis

The Myanmar pork meat sector does show potential if we look at its increasing consumer market. The rising upper and middle class has caused the demand for pork meat, especially higher than domestic quality, to increase. In addition, the presence of climate controlled warehouses owned by importers shows that that companies are trying to professionalize their business. However, there is lack of awareness with respect to hygiene standards and food safety at, especially the abattoirs, some links in the supply chain. Even though some companies are aware of the situation it is hard to establish clear rules and therefore takes some time to effectively implement them.

One noticeable thing about the Myanmar pork meat sector is the lack of data throughout the whole supply chain. There is very little market transparency which is reflected by the structural lack of knowledge with respect to the prices and volumes of competitors. In addition, the few import rules and regulation shows that importing pork meat is still at its early stages.

The main opportunities for Dutch companies to expand their business in Myanmar are to contact one of the interested importers or distributors in Myanmar. Besides Premium Distribution, every importer and distributor showed interest for Dutch pork meat if the price/quality ratio was up to their standards. This ratio depends per product and therefore every product needs to be evaluated to determine the trade possibilities. Top Homemade Foodstuff trading is supplying 80% of the total supply of imported pork meat to the high-end hotels' en restaurants. The table below shows the average purchase prices per pork meat product, however, every product is evaluated differently and therefore the prices can differ.

Product	Price (in Kyat)
Pork Loin	7400
Pork Rib	7500
Pork Belly	8000

Table 1: Purchases prices and products of Top Home-Made Foodstuff Trading Co., Ltd. per kilo, retrieved from personal communications.

Again, table 1 shows the 3 pork meat products which are most popular in high-end hotels and restaurants. Appendix A provides an overview of all the interviews and also contacts information of all the biggest importers and distributors in the city of Yangon.

6. Conclusions and recommendations

The Myanmar pork meat sector is a growing sector and the demand for high quality meat is increasing. Even though demand for pork offal is high in Myanmar, the opportunities for Dutch companies are found in the demand by importers and distributors. Dutch companies who want to conduct business in Myanmar and want to expand their business should look at the export of pork rib, pork belly, or pork loin. Based on interviews with importers and distributors these products are mostly demanded. Currently, there is not much pork meat imported to Myanmar even though the demand for high quality import meat is rising. Therefore, an early entrance aiming for a long term presence in the market could offer potential for Dutch investors.

However, it should be stated that the current pork meat sector is still at a very unprofessional level and needs some improvement with respect to cold storage solutions, cooling transport equipment, and setting rules and regulations with respect to hygiene and food safety. In addition, they need institutional strengthening with respect to data collection and government staff. The pork meat sector still needs to develop and professionalize to increase the consistency in pork meat quality and price. Insufficient cold chain throughout a large part of the supply chain causes the pork meat prices to fluctuate and therefore sometimes hard to predict. The production of local meat needs some significant improvements regarding food safety and health conditions to compete with the quality of imported meat. Also, there is chronic information poverty for the importers and distributors of pork meat. They lack knowledge about their competitors' prices, market share, and volume which makes it hard for them to establish competitive prices.

The Myanmar government is trying to set rules and standards for the production and processing of pork meat and trying to collect sector data to provide more information to the players involved. However, due to insufficient investment in government departments, it is hard to envision these goals within a few years. According to dr. Hnin thidar myint it will take some considerable time, 5-10 years, to show significant improvements.

However, import of western meat is increasing in popularity and importers and distributors are looking to expand their portfolio of imported meat. Furthermore, with the entering of Metro-wholesale into the sector at the end of 2018 and the efforts made by some Myanmar companies does show prospect for the future. If companies Dutch companies want to export to Myanmar they could contact Metro or Top home-made foodstuff trading since they are both willing to import Dutch pork meat for a good price quality ratio. However, since the sector is expected to develop slowly, Dutch investors should keep in mind that it would probably be a long term investment.

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Appendix A

A1: Hotels and Restaurants

Pan Pacific Hotel

Interviewee: Chef Pan Pacific Hotel Yangon

Date: 25-04-2018

Address: Corner of Bogyoke Aung San Road and Shwe Dagon Pagoda Road, Yangon

Phone: N.A.

Email: N.A.

Website: <https://www.panpacific.com/en/hotels-resorts/myanmar/yangon.html>

Lotte hotel

Interviewee: Dae Yong lee (Sous chef)

Date: 26-04-2018

Address: No. 82, Sin Phyu Shin Avenue Pyay Road, 6½ Mile, Ward 11, Yangon

Phone: +95-1-9351000

Email: dy0chef@gmail.com

Website: <http://www.lottehotel.com/yangon/en/>

Rose Garden hotel

Interviewee: Chef Than Linn Aung

Date: 24-04-2018

Address: 171 Upper Pansodan Rd, Yangon

Phone: 01 935 1000

Email: N.A.

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

Park royal hotel

Interviewee: Saw Htun Aung (Executive sous chef)

Date: 25-04-2018

Address: 33 Alan Pya Phaya Road, Dagon Township, Yangon 11191

Phone: +95-1-250388

E-Mail: execsouschef.prygn@parkroyalhotels.com

Website: N.A.

Sule Shangri-La hotel

Interviewee: Chef Park Royal hotel

Date: 26-04-2018

Address: 223 Sule Pagoda Rd, Yangon 11182

Phone: +95-1-250388

E-mail: N/A

Website: <http://www.shangri-la.com/yangon/suleshangrila/>

Novotel hotel

Interviewee: Chef Novotel Hotel

Date: 01-04-2018

Address: 59 Pyay Road Kamayut Tsp, Yangon

Phone: +95-1-2305858

E-mail: N.A.

Website: N.A.

Horizon Hotel Resorts

Interviewee: Rolf Ruschenschmidt

Date: 15-04-2018

Address: Taw Win Yadanar Road, National Guest house zone, Dekhinathiri Township, Nay Phi Taw, Myanmar

Phone: +95-9-250430603

E-Mail: rolf.ruschenschmidt@horizonhotelresorts.com

Website: www.horizonhotelsresorts.com

Seeds restaurant

Interviewee: Chef cook Lotte hotel Yangon

Date: 01-04-2018

Address: No. 82, Sin Phyu Shin Avenue Pyay Road, 6½ Mile, Ward 11, Yangon

Phone: +95-1-9351000

Email: N.A.

Website: <https://www.seedsyangon.com/>

A2: Importers & Distributors

Top Home-made Foodstuff Trading Co., Ltd

Interviewee: Sann thwin

Date: 03-05-2018

Address: No. 350, Mingalar St, Sawbwargyi Gone, Insein Township. Yangon, Myanmar.

Phone: +95-1-641457 (office) or +95-9-43147603 (mobile)

E-mail: sonnythwin@gmail.com

Website: N.A.

Premium Distribution

Interviewee: Nay Chi Sett

Date: 22-05-2018

Address: Unit no. 1-3, Aung san stadium (North Wing) Gyo Phu Rd, Mingalar Taung Nyunt Tsp, Yangon, Myanmar.

Phone: +95-1-249192 or +95-1-253251

E-mail: fsmgr.premium@gmail.com

Website: www.premiumgroup.com.mm

Marbled Black

Interviewee: Htoo Maung (Managing director)

Date: 22-05-2018

Address: No. 34 Kabareye Pagoda Road, Bahan Tsp, Yangon, Myanmar

Phone: +95-9-97226020 or +95-9-42386608

E-mail: htoo@marbledblack.com or marbledblack@gmail.com

A3: Supermarket

City mart Holding Co., Ltd.

Interviewee: Kyaw Kyaw Myint (Fresh Food & Production manager)

Date: 22-04-2018

Address: nog 68/69, front of Mya khwar Nyo Housing, Ayar Won Road, Thaketa Township, Yangon, Union of Myanmar

Phone: +95-1-45053039

E-mail: production@city.com.mm

Website: <http://www.cmhl.com.mm/>

A4: other interviewed parties

Slaughterhouse in east dagon township

Interviewee: Zaw Gyi (owner of the slaughterhouse)

Date: 08-04-2018

Phone: N.A.

E-mail: N.A.

Area: Ywar Thar Gyi area, Yangon

Livestock breeding and veterinary department

Interviewee: Dr. Hnin thidhr myint

Date: 15-04-2018

Phone: N.A.

E-mail: htmlbvd2015@gmail.com

Website: N.A.

Agriterra

Interviewee: Bob Jan Schoot Uiterkamp

Date: 27-04-2018

Address: N.A.

Phone: +95 (0) 9762698520

E-mail: Schoot@agriterra.org

Website: <https://www.agriterra.org/myanmar/>

De Heus

Interviewee: Johan van den Ban

Date: 24-04-2018

Address: No.33 (B4), Malihka Street, Parami Road (Between Pyi Road & Kabaaye Pagoda Road), Mayangone Township, Yangon

Phone: 09-797023466

E-mail: jban@deheus.com

Website: www.deheus.com

Metro-Group

Interviewee: Fred Fishlock

Date: 02-05-2018

Address: Wing B, Ground floor, Building A3, Star city, Thanlyin township, Yangon

Phone: +95 (0) 9797 390 001 (office) or +95 (0) 9797 390 007 (mobile)

Netherlands Enterprise Agency – RVO

International Business Research



E-mail: fred.fischlock@metro-wholesale.com

Website: <https://archiv.metrogroup.de/en>

C.P. Group

Interviewee: Dr. Myo Thant (Vice President Integration Business (Myanmar))

Date: 23-04-2018

Address: No.96 (A), Lan Thit Street, Insein Township, Yangon, Myanmar

Phone: +95-9-260284365 or +95-9-260284366 or +95-9-260284367

E-mail: drmyothant1971@gmail.com

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

Appendix B

Check LBVD:

- Companies who are exporting pork meat to Myanmar have to send samples to the LBVD.

Document needed:

- **Import license:** The consignment of pork and their edible animals products shall be accompanied by a valid import license issued by Government authority of Myanmar. This takes around $\frac{2}{3}$ months.
- **Description of Animal:** The consignment of pork and their edible animals products shall be accompanied by a certificate containing a full description or identification of the animals.
- **Veterinary Certification:** A health certificate signed by a fully authorized Veterinary Officer. This certificate should include the detailed facts of commodity and the following disease status;

Rules:

- The country of origin is free from Rinderpest, African Swine Fever, Enteroviral Encephalomyelitis and Swine Vesicular Disease
- The country/ region/ zone of origin has been free from Foot and Mouth Disease (FMD) and Porcine Respiratory and Reproductive Syndrome (PRRS).
- The farms or premises of origin has been free from for infectious and contagious disease notifiable in the country of origin the past (12) months preceding the slaughter of the animals and until the time of export.
- The animals are born and reared in the country of origin or have been in the country of origin for not less than 4 months prior to slaughters.
- The animals have received ante-mortem and post-mortem inspection and found to be free from infectious and contagious disease.
- The meat/meat products have been processed under supervision of full-time authorized veterinary officials. Every precaution has been taken to prevent any contamination during the manufacturing, packaging and until the time of export.
- The meat/meat products do not contain preservatives, additives or any substances posing a harmful risk to human health.
- The meat/meat products have been sampled to tests for food microorganisms as well as drugs and pesticide residues.
- The meat/meat products has been stored by frozen for not more than (3) months prior to export.
- The meat/meat products shall bear a health mark or meat inspection legend in any form or a label
 - A. Animal : Pork and their Edible Animal's Products
 - B. Exporting Countries : All Countries
 - C. Purpose : Consumption
- The meat/meat products shall bear a health mark or meat inspection legend in any form or a label.

Quarantine in Myanmar

The meat/meat products are subjected to inspection for laboratory testing upon arrival. The owner/ importer should be charged for the expenses. Failure to follow the import procedures may cause returning the meat/meat products to the country of origin or destroyed without compensation.

Fees

Netherlands Enterprise Agency – RVO

International Business Research



The following fees are payable, for each consignment of pork and their edible animal products imported into Myanmar;

Fresh meat : 290 kyats per metric ton

Dried meat : 870 kyats per metric ton

Appendix C



MEAT AND SEAFOOD OPERATION MANUAL

Item Profile

Product Name: Pork Thigh Meat
Official Name:
Place Origin: Local Low-land

General Item Specifications:
Meat should be cleaned & fresh, free of bruising, decay or disease. No color change or pale.



Quality Specification:

Color	<i>Outside</i>	Fresh meat color		
	<i>Inside</i>	white , red in color		
Odour	no bad smell, or strong smell			
Safety	rinse with water before used and cooked >75 °C			
Size	Min	256x15x5 cm	Max	31x25x10 cm
Weight	Min	3000 grams	Max	3500 grams
Display Strategies	<input checked="" type="checkbox"/> LOOSE		<input type="checkbox"/> REPACK	
Special Repacking	Min	N/A	Max	N/A
	Min	N/A	Max	N/A
Case/Carton	Min		Max	
Texture				

Ethylene Production	NO
Sensitive to Ethylene	YES

Display Area	<input checked="" type="checkbox"/> CHILLER	Temp:	0 -4 °C	<input type="checkbox"/> DRY	Temp:	16 - 2
Shel Life:	3 Days					
Remarks:						

Health Benefits

Improved immunity

Reduce Inflammation

Enhance Energy Level

Being high in protein and rich in many vitamins and mineral.

low in salt and a rich source of good quality protein.

including iron, zinc, some of the B group vitamins, selenium and phosphorus.

Appendix D



Arrival of meat at the City Mart distribution center in Yangon



Meat Processing room



Meat labeling room



Cooling room and storage