

CHAPTER 4

DATA

4.1. Gap between Demand and Supply

Business opportunities need to be bold enough to ensure the potential investors in order to make them invest in our business. Export business is all about demand and continuous supply. This sub chapter will explain about the current condition where the demand for salted egg is high in Singapore and why Klaten has potency to export salted duck eggs.

4.1.1. Demand

Singapore population continues to grow from year to year. From the data shown in Figure 4.1., the population in Singapore in 2016 reached 5.6 million people only with a country area of 719.1 km². Figure 4.2. shows kind of foods Singaporean consumed at the average. It also shows where the foods come from. Every Singaporean eats an average 308 eggs during 2011. This shows the high demand for eggs from Singapore. Singapore as much as 90% imports their food. Comparing the population with the available land makes Singapore does not have enough land to raise livestock. This indicates that the opportunity to import eggs to Singapore is quite large because of the high demand. There is no clear data about how many salted eggs are consumed in Singapore. However, many Singapore restaurants rely on salted eggs to make their typical dishes, including fast-food restaurants like McDonalds. Figure 4.3. shows the mainstay Singaporean menu used salted egg as their base which also can be indicated the high use of salted egg consumption in Singapore.

KEY DEMOGRAPHIC INDICATORS, 1970 – 2016

Population	1970	1980	1990	2000	2010	2015	2016
Total Population ^{1,2,3} ('000)	2,074.5	2,413.9	3,047.1	4,027.9	5,076.7	5,535.0	5,607.3
Resident Population ^{2,3} ('000)	2,013.6	2,282.1	2,735.9	3,273.4	3,771.7	3,902.7	3,933.6
Singapore Citizens ('000)	1,874.8	2,194.3	2,623.7	2,985.9	3,230.7	3,375.0	3,408.9
Permanent Residents ('000)	138.8	87.8	112.1	287.5	541.0	527.7	524.6
Population Density ⁴ (Per sq km)	3,538	3,907	4,814	5,900	7,146	7,697	7,797
Sex Ratio ⁵ (Males per 1,000 females)	1,049	1,032	1,027	998	974	965	963

Figure 4.1. Total Singapore Population

Source: www.singstat.gov.sg

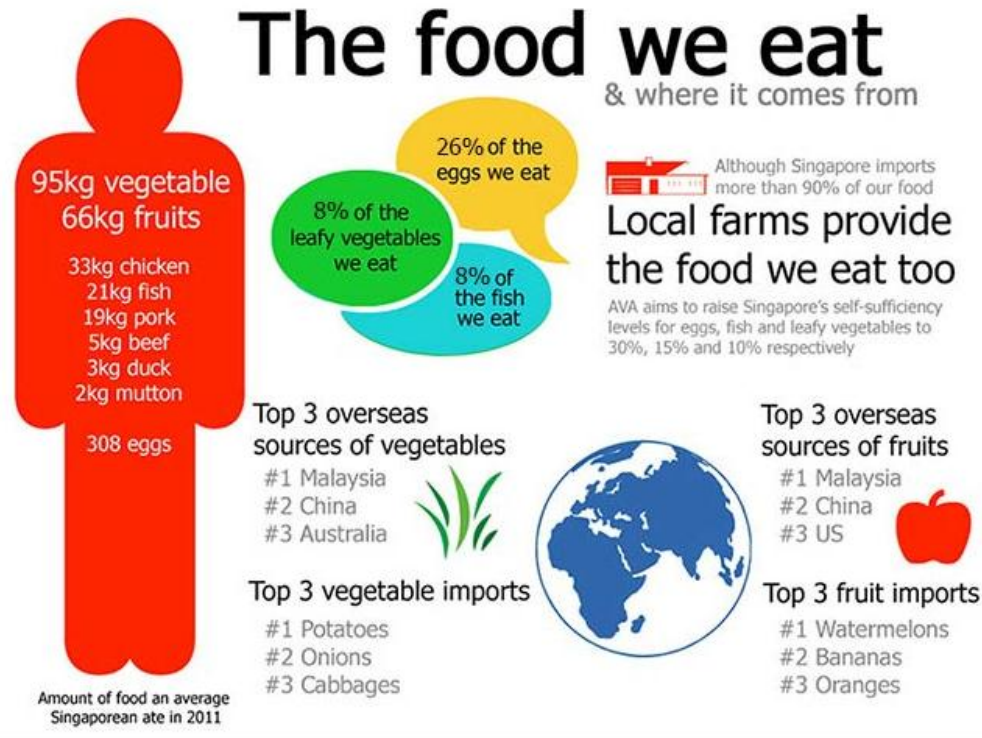


Figure 4.2. Singaporean Food Consumption Chart

Source: www.ava.gov.sg



Figure 4.3. Singaporean Cuisines Used Salted Egg Base

Source: www.danielfooddiary.com

Indonesia has been exporting salted eggs to Singapore. Company that is able to export salted eggs from Indonesia to Singapore is only one, named UD Surya Abadi. The company sold 90,000 items since October 2012 when it demanded 130,000 items. Shipping does not continue because the company is already overwhelmed in handling domestic orders.

4.1.2. Supply

Klaten is located in Central Java, between Solo and Yogyakarta. It is found that duck breeders in Klaten run into difficulties in selling their duck eggs. This fact is known after a small observation is conducted in Klaten by picking up duck breeders randomly to be interviewed. There are fifteen duck breeders had been interviewed. Table 4.1. shows the interview details and Table 4.2. shows the processed result of the interview.

Table 4.1. Duck Breeder Interview Details

No	Name	Place and Time	Interview Narration
1	Suci	Delanggu May 23, 2017	Mrs. Suci had around 2000 ducks in 2012. The current duck she had is 700. She said there was a moment where the duck breeders are a lot and the selling price of duck eggs reach Rp1,000.00 per egg. She saw duck breeding cannot be a profitable business so when the duck cannot lay eggs anymore, she sold them little by little every year. She said if the duck eggs were not sold, the way she sold them is by marinating them first into salted eggs.
2	Joko	Karanglo May 23, 2017	Mr. Joko is a duck breeder which has only few of ducks. He had 400 at the first from his father's inheritance. The duck poultry has been the business of his family until there was a time when it is difficult to sell but he didn't know the reason. Some of the ducks were sold as time goes by to cover the life neccessities. Mr. Joko's son now already works in an office so the duck was not their main business anymore.

Table 4.1. Continuation

3	Pardi	Karanglo May 23, 2017	Came from the same village as Mr. Joko made Mr. Padi has similar story to Mr. Joko. He had 700 ducks at that time. The difficulties of selling duck eggs also was felt by him. The number of duck he has now is 450 ducks. Sometimes he processes the duck eggs and sells it as salted duck eggs. He has sold their duck eggs to martabak seller around Klaten.
4	Sinta	Karanglo May 23, 2017	Mrs. Sinta has run this business since 2005. She had 3000 ducks. Her duck business is likely the largest in the village. She only mentioned that her ducks had been sold for that time for personal use, then she bought some more ducks until finally she now has 2200 ducks.
5	Bahtiar	Pedan June 04, 2017	Mr. Bahtiar had around 800 ducks in 2012. The current duck he has is around 460. He said it was difficult to sell the ducks around Klaten and Solo. He didn't have choice except for selling his ducks to cover his needs at that time. He also mentioned that now duck eggs is not too difficult to sell, but it is hard for him to buy more ducks regarding to financial and land issues.
6	Rini	Pedan June 04, 2017	Mrs. Rini started her duck poultry in 2011. She got her inherited land from her family and had the idea of being a duck farm. She bought 200 ducks and now the duck is still 200 ducks. She said selling duck egg is rather difficult, but also not easy. She is able to maintain the business and keep the ducks.

Table 4.1. Continuation

7	Wahyu	Gayamprit June 04, 2017	Mr. Wahyu was an incompetent breeder. He had 800 ducks in 2012. He had cheated people and his ducks had been exposed to the disease until finally left about 630 ducks. He also said duck eggs were difficult to produce due to uncertain weather. Now he has mastered about breeding ducks and was able to run his business quite well.
8	Herman	Delanggu June 04, 2017	Mr. Herman mentioned that duck eggs are different with chicken eggs. His ducks has reduced from 3000 to 700 because the ducks do not lay eggs. He didn't know why but he predicted it was because of the weather or stressful level. Now he is slowly turning his duck business into chicken business.
9	Niko	Gondang June 06, 2017	Mr. Niko started his duck poultry with around 400 ducks in 2009. He experienced a lot of falling up like a duck that does not lay eggs and trouble selling duck eggs because the price is falling into a very cheap. The duck had been sold partly and he bought a new one. He pursues his business until now and already has 2000 ducks.
10	Chandra	Gondang June 06, 2017	Mr. Chandra is Mr. Niko's colleague. He didn't have capital as much as Mr. Niko, so when the price of duck eggs are falling into very cheap, he couldn't do anything yet selling his ducks. He had 2800 and now he is rebuilding his poultry and owned around 1600 ducks.

Table 4.1. Continuation

11	Alma	Wedi August 10, 2017	Mrs. Alma had just built a household back then in 2010. She started to build duck poultry and in the 2012, their duck was around 900 as she can remember. Her ducks turn into 300 because she said it was hard to sell duck eggs. After the ducks didn't lay eggs, she sold them. She said actually the income by selling duck eggs are quite a lot, but uncertain. Duck poultry becomes her side job after her husband become an employee in a factory.
12	Bakri	Wedi August 10, 2017	Mr. Bakri has owned duck for so long. In 2012 his ducks were around 540 and now only 350 left. The cause is also difficult to sell and uncertainty of customers.
13	Adhi	Delanggu August 11, 2017	Mr. Adhi has started duck business in 2010. The number of his ducks were 500 in 2012. His business was ups and downs until now he has 320 ducks. The reason of it mostly is because some of his ducks didn't lay eggs.
14	Budi	Delanggu August 11, 2017	Mr. Budi has started his business in 2007. He got his father's inheritance in the form of duck poultry business. He got 1600 ducks in 2012, but currently he only has around 1000 ducks. There will always a situation where duck eggs were hard to sell. He said nowadays selling of duck eggs is quite good and he believes that duck eggs business is prospective enough.
15	Kris	Delanggu August 11, 2017	Mr. Kris has 3000 ducks in 2012 and now the ducks are only around 1000. According to him, duck business is sometimes difficult to conduct because the demand is uncertain. There was time where he needs to buy motorbike so he sold some of his ducks to cover the money since duck poultry is not his main business.

Table 4.2. shows that 47.3% of duck owned by farmers decreased during the last 5 years. Nine out of fifteen duck breeders stated they were forced to sell their ducks because it was difficult to sell their duck eggs until the ducks were not productive enough to produce eggs and had to be sold. This concludes that actually, during this time Klaten has an excess of duck eggs because duck breeder can not sell their products well. The causes are vary, it could be domestic demand is less than the supply; the duck egg quality is not good all the time, and so on. Running this business idea may take investors asked about the supply sustainability because the excess was occurred in the past. Later, in the business strategy section will be explained that to run the business, the supply of duck eggs can be taken from outside Klaten, meanwhile the business management develop Klaten duck breeders to increase their duck amount and improve the quality of the duck eggs.

Table 4.2. Duck Breeder Interview Data

Farmer	Duck Amount (2012)	Duck Amount (2017)	Reason	Percentage Decreased (%)
1	2000	700	Difficult to sell	65.0
2	400	150	Difficult to sell	62.5
3	700	450	Difficult to sell	35.7
4	3000	2200	For another occasion	26.7
5	800	460	Difficult to sell	42.5
6	200	200	Constant	
7	800	630	Sick	21.3
8	3000	700	Ducks do not lay eggs	76.7
9	1200	2000	Increasing	
10	2800	1600	Difficult to sell	42.9
11	900	300	Difficult to sell	66.7
12	540	350	Difficult to sell	35.2
13	500	320	Ducks do not lay eggs	36.0
14	1600	1000	Difficult to sell	37.5
15	3000	1000	For another occasion	66.7
Average				47.3

4.2. Current Market Condition

Singapore has become the most developed economical country in South East Asia. The small area of Singapore's land made Singapore exports 90% of their foods. It is predicted that Singapore's growth in consumer spending on foods and beverages increase 5% every year and will be continued in retail food sector. This fact is caused by Singapore's incapability in producing their foods. Singapore does not charge taxes on food and beverages (except for alcoholic beverages, tobacco products and goods and services taxes) because the agricultural needs of Singapore are almost entirely dependent on imports.

Singapore has four major retailer categories. The first is large retailers including supermarkets and hypermarkets, the second is convenience retailers, the third is traditional stores, and the fourth is specialty store. There are three key players among the sectors. The first is NTUC FairPrice Cooperative. It has more than 280 grocery channels in 2015. Supermarket that include in NTUC FairPrice group such as FairPrice supermarkets, FairPrice Xpress hypermarkets, Cheers convenience stores, FairPrice Finest for middle low economy target, and Warehouse Club. The second is Dairy Farm International Group (DFI) which includes Cold Storage, The Market Places and Jason's The Gourmet Grocer, Giant, and 7-11 which focus on middle and upper income society. The third is Sheng Siong Supermarket with lower income consumers as their target and has 38 stores located near subsidized apartments. They procure mainly from neighboring countries such as China, Malaysia, Indonesia, Thailand and Vietnam.

Singaporeans buy their foodstuffs from supermarket and wet market. The dominant supermarkets are FairPrice, Giant, Sheng Siong, and retailers like 7-11. A well-known traditional market in Singapore and selling egg products namely Tekka Center Wet Market, Tiong Bahru Wet Market, Pasir Panjang Wholesale Center, and Whampoa Wet market. Retail food sales through the internet are expanding in Singapore. Supermarkets such as FairPrice and Cold Storage own an online shop. Even they have new competitors such as Red Market that offer for delivery of goods within 2 hours of the same day. The convenience store has a very tight competition because big supermarkets are everywhere and offer similar prices with more product choices. Competition between supermarkets and traditional markets is also very intense because consumers now prefer convenience in terms of shopping. Prices offered by traditional markets about

15% cheaper than the price offered by supermarkets. But the supermarket itself offers a variety of payment systems, lots of discounts, a choice of more variant goods, and a clean and comfortable environment to shop. Even so there are still many people who choose traditional markets because the stuffs offered are fresher and bargaining is possible which allows buyer to get the cheapest price.

In Singapore, salted eggs are sold in supermarkets, convenience stores, and traditional markets. Processed duck egg products can be sold per item or per pack. In supermarkets, salted eggs are sold in a carton egg tray contents 30 eggs and mica egg tray contents 4 eggs. Figure 4.5. and Figure 4.6. show salted eggs sold in supermarket and be sold through online shop. In the traditional market, eggs are sold per item and the packaging is carton egg tray contents 30 like shown in Figure 4.4. Average salted egg weight sold is 60 - 70gram. The price for four raw eggs in supermarket is approximately Rp20.000,00 (currency rate at August, 2017). The price for one raw salted duck egg in Singapore is approximately Rp5.000,00. Data for suppliers price can not be found through internet. The approximate price for raw egg can be known by estimation. Supermarket usually takes 30% profit which means other suppliers set around Rp4.000,00 per egg. So the price offered by Indonesia should be less than Rp4.000,00. Restaurants will choose to buy salted eggs in the market or directly from the distributors. The conclusion is the most suitable packaging for start up business in exporting salted duck eggs is using carton egg tray contents 30 items. The target to offer salted duck eggs are big distributors, supermarkets, and wet markets.



Photos:

Need some eggs? – Along with traditional eggs, Peter Lim sells quail and salted eggs. Their briny taste and bright orange yolks are well loved in Singapore.

Figure 4.4. Salted Egg Seller in Wet Market

Source: www.edition.cnn.com

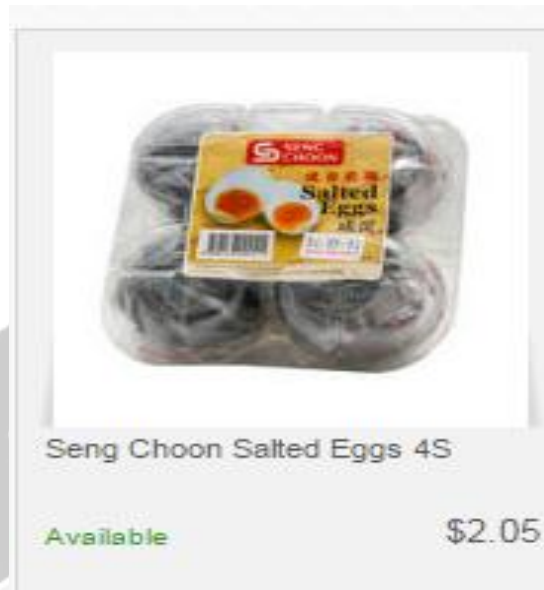


Figure 4.5. FairPrice Raw Salted Egg

Source: www.fairprice.com.sg

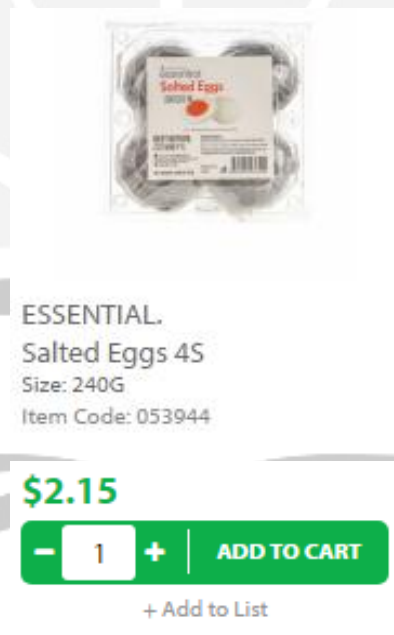


Figure 4.6. Cold Storage Raw Salted Egg

Source: www.coldstorage.com.sg

4.3. Competitors

Singapore has five countries as their salted eggs exporters. The exporter countries are China, Vietnam, Taiwan, Thailand and Indonesia. The largest exporter of salted egg commodities is China with 23 companies (consists of 22 companies export salted eggs and one company exports salted eggs and boiled salted duck eggs), followed by Vietnam with four companies (only export salted

eggs), then Taiwan with two companies (the one exports boiled salted eggs and the other exports both raw and boiled salted egg), and the last are Indonesia and Thailand with one company (only export salted duck egg). Figure 4.7. shows the company list who had licence to export salted duck egg.

Accredited Overseas Meat and Egg Processing Establishment						
Importers, exporters and competent authority of other countries may use this database to search for approved overseas establishments. Input one or more search criteria below to retrieve the required results.						
Search Result : 2 record(s) found						
Country	Establishment Number	Establishment Name	Address	Province	Products	Status
INDONESIA	ID296	PT SUMBER PANGAN NUSANTARA	02 JL RAYA BUDURAN NO. 555, SIDOARJO 61252	EAST JAVA	frozen frog legs	Active
INDONESIA	IDIT-3215113008-01	UD. SURYA ABADI	JL. PROKLAMASI RT. 04 / 04, TUNGGAK JATI	KARAWANG BARAT, KARAWANG, WEST JAVA	salted duck eggs	Active

*Amphibian includes Crocodile, Frog legs, etc.
 *Game includes Emu, Kangaroo, Ostrich, Reindeer, Venison, Wild Pigs, etc.
 *Poultry includes Chicken, Duck, Goose, Guinea Fowl, Partridge, Pheasant, Pigeon, Quail, Rabbit, Spacock, Squab, Turkey, etc.

Figure 4.7. Indonesia Company Exports Salted Duck Eggs

Source: www.ava.gov.sg

Indonesia can not be competitor in this business because in export business. It is only one SME from Indonesia who can export salted duck egg, therefore to make Indonesian export more powerful, this company is not considered as competitor yet. Especially if the supply of salted eggs to be exported less, the company can be a colleague in business by switching the role as a supplier. The competitors in export business are other countries who export the same commodity. If Indonesia is able to sell at least the same quality, but cheaper price and guaranteed supply, this will make importer country trust to import eggs from Indonesian company. So later, Indonesia is slowly able to export more salted eggs to more countries. In this way, demand for duck eggs from salted egg farmers in Indonesia will increase and duck breeders can expand their business.

4.3.1. China

China is a country famous for its eggs, both from chicken eggs, duck eggs, quail eggs, and strange eggs that rarely encounter like turtle eggs. China preserves its eggs by marinating and making it into century eggs. In China, eggs are one of the most sought-after foods. This is because eggs have become one of the cultural heritages in China, where many traditional Chinese foods and traditional shows

use eggs as the main ingredient and symbol of their lives. This is why China became one of the world's exporter eggs, especially for salted eggs and century eggs. In addition, China is a country that is famous for its trade and cheap goods; so that China became one of the exported eggs countries which are very advanced and worldwide.

Singapore has 23 Chinese companies that export their salted eggs to Singapore. Figure 4.8. shows AVA data about the companies list, addresses, and types of salted eggs they export. All listed companies are declared still active.

Accredited Overseas Meat and Egg Processing Establishment						
Importers, exporters and competent authority of other countries may use this database to search for approved overseas establishments. Input one or more search criteria below to retrieve the required results.						
Search Result : 23 record(s) found						
Country	Establishment Number	Establishment Name	Address	Province	Products	Status
CHINA	CN3300 / 07005	HANGZHOU QIANDAOHU ZHIKANG AGRICULTURE DEVELOPMENT CO. LTD	QIANDAOHU, HANGZHOU, ZHEJIANG	ZHEJIANG	salted & preserved eggs	Active
CHINA	CN3300 / 07013	HANGZHOU JIANLONG EGG PRODUCTS CO. LTD	TANGXI TOWN, HANGZHOU	ZHEJIANG	salted & preserved eggs	Active
CHINA	CN3300 / 07016	HANGZHOU SHUNFENGXIANG FOOD CO. LTD	CHONGXIAN TOWN, YUHANG, HANGZHOU	ZHEJIANG	salted & preserved eggs	Active
CHINA	CN3302 / D06009	YUYAO FOWL EGG PROCESSING FACTORY	NO. 2 ZHENGHUA RD, SHUILUTOU VILLAGE, SIMEN TOWN, YUYAO CITY	ZHEJIANG	salted & preserved eggs	Active
CHINA	CN3302 / D06015	CIXI XIANGLONG FOOD FACTORY	JIANSHAN SPUR TRACK, CIXI CITY	ZHEJIANG	salted & preserved eggs	Active
CHINA	CN3500 / 07002	DAJI FOODSTUFF FACTORY XIANYOU COUNTY, FUJIAN PROVINCE	DAJI STREET, WUSHI, DAJI TOWN, XIANYOU COUNTY	FUJIAN	salted & preserved eggs	Active
CHINA	CN3500 / 07003	FUJIAN GUANGYANG EGG INDUSTRY CO. LTD.	HONGXING VILLAGE, JINGYANG TOWN, FUQING CITY	FUJIAN	salted & preserved eggs	Active

Figure 4.8. China Companies Exports Salted Duck Eggs

Source: www.ava.gov.sg

CHINA	CN3500 / 07005	FUJIAN YASAO FOOD CO. LTD.	BLOCK 2, DONGGE OVERSEAS-CHINESE FARM, FUQING CITY	FUJIAN	salted & preserved eggs	Active
CHINA	CN3500 / 07006	FUJIAN DALAOGU FOODSTUFF CO. LTD	WUSHI, DAJI TOWN, XIANYOU COUNTY	FUJIAN	salted & preserved eggs	Active
CHINA	CN3600 / 07003	NANCHANG MESHI FOOD CO. LTD	NO. 133 SHIMAZHUQIAO, DISTRICT QINYUNPU, NANCHANG	JIANGXI	salted & preserved eggs	Active
CHINA	CN3600D00049	JIANGXI HONGMEN INDUSTRIAL GROUP CO. LTD	HONGMEN TOWN, NANCHENG COUNTY, FUZHOU CITY	JIANGXI	salted & preserved eggs	Active
CHINA	CN4200 / D02019	HUBEI SHENDAN HEALTHY FOOD CO. LTD	NO. 3, EAST JIEFANG ROAD, ANLU CITY	HUBEI	salted & preserved eggs	Active
CHINA	CN4200 / D09020	SUIZHOU YUBIN FOOD CO. LTD	LIESHAN STREET, YATONG AREA, SUIZHOU	HUBEI	salted & preserved eggs	Active
CHINA	CN4200 / D10001	HUBEI PROVINCIAL STATE XIONGKOU FARM CEREALS OILS & FOODSTUFFS FACTORY	XIONGKOU FARM, QIANJIANG	HUBEI	salted & preserved eggs	Active
CHINA	CN4200D07007	JINGZHOU SHUANGGUANG BIRDS BREEDING AND PROCESSING CO. LTD	KILOMETERS OF NATIONAL ROAD 207, JINGMAOKOU, GONG' AN COUNTY, JINGZHOU	HUBEI	salted & preserved eggs	Active
CHINA	CN4200D07011	HUBEI YUXIANG LIVESTOCK CO. LTD	NO.8 TAIHUI ROAD, JIUYANG INDUSTRIAL PARK, JINGZHOU CITY	HUBEI	salted & preserved eggs	Active
CHINA	CN4200D07013	JINGMEN JIAOLONG FOODSTUFF CO. LTD	JINGBO DADAO, HOUGANG TOWN, JINGMEN CITY	HUBEI	salted & preserved eggs	Active
CHINA	CN4200D07026	HUBEI SHUANGGUANG BIRDS BREEDING AND PROCESSING CO. LTD	NO.1 YOUJIANG ROAD, GONG AN COUNTY	HUBEI	salted & preserved eggs	Active
CHINA	CN4200D07030	HUBEI JINGJIANG EGG INDUSTRY CO. LTD.	56 CHA AN ROAD, RONGCHENG TOWN, JIANLI COUNTY	HUBEI	salted & preserved eggs	Active
CHINA	CN4200D10012	HONGHU WEICHENG FOOD CO. LTD	#93 GONGNONG STREET, FENGKOU TOWN, HONGHU CITY	HUBEI	salted & preserved eggs	Active
CHINA	CN4400 / 07001	SHERFORD POULTRY (HUIZHOU) CO. LTD	LAOWEI VILLAGER GROUP, JINXIN VILLAGE, TONGQIAO TOWN, HUICHENG DISTRICT, HUIZHOU CITY	GUANGDONG	salted & preserved eggs	Active
CHINA	CN4400 / 07002	KAIPING HAOHUI EGGS PRODUCTS PROCESSING FACTORY	WUCUN INDUSTRIAL DEVELOPMENT AREAS, LONGSHENG TOWN, KAIPING CITY	GUANGDONG	salted & preserved eggs, boiled salted duck eggs	Active
CHINA	CN4400 / 07008	KAIPING XURI EGGS CO. LTD	SHANGDENG SCHOOL, ZHONGMIAO VILLAGE, CHEKAN TOWN, KAIPING CITY	GUANGDONG	salted & preserved eggs	Active

*Amphibian includes Crocodile, Frog legs, etc.

*Game includes Emu, Kangaroo, Ostrich, Reindeer, Venison, Wild Pigs, etc.

*Poultry includes Chicken, Duck, Goose, Guinea Fowl, Partridge, Pheasant, Pigeon, Quail, Rabbit, Spacock, Squab, Turkey, etc.

Figure 4.8. Continuation

Unlike Indonesia, China's salted egg is made by using salt water and anise then stored in a closed container. In this case the price of Indonesian salted egg production becomes more expensive because Indonesia uses red brick dust, ash rub, and salt to make salted egg (assuming the price of duck egg is the same). For comparison of flavors, salted eggs made with brick dust and ash has tastier egg yolks. The yolk could be said tastier if the taste is masir (likely sandy), the

colour is a bright yellow to reddish orange color, and do not cause the smell of fishy. In addition, the use of bricks and ash as a medium for making salted eggs makes coliform bacteria, Escherchia coli, and Salmonella-Shigella not able to grow in eggs. This is an advantage of Indonesian salted eggs. Chinese salted eggs on the market now can hold up to a year for both raw and cooked. With the same raw materials, Chinese salted eggs have better packaging than Indonesia, for example the Chinese's salted egg is sold with vacuum sealer packaging where the air is unable to penetrate the egg shell so that bacteria can not enter the egg. Things that cause salted eggs quickly rot one of them is the bacteria that can penetrate the shell of salted eggs.

4.3.2. Taiwan

The way Taiwanese is not much different from China. Figure 4.9. explains Taiwan companies that export salted egg to Singapore. Of the four companies that export processed eggs, only two are exporting salted eggs. Figure 4.9. shows company data and egg products imported Singapore from Taiwan.

Accredited Overseas Meat and Egg Processing Establishment

Importers, exporters and competent authority of other countries may use this database to search for approved overseas establishments. Input one or more search criteria below to retrieve the required results.

Search Result : 4 record(s) found

Country	Establishment Number	Establishment Name	Address	Province	Products	Status
TAIWAN	TW99-699608-00	KINDLY EGGS CO., LTD	NO. 65, SANFU ST., CHIU-JU HSIANG	PINGTUNG HSIEN	preserved duck eggs, boiled salted eggs	Active
TAIWAN	TW99-699691-01	HORN-LIANG FOODS CO., LTD	NO. 175, LANE 3, MAR TSU ROAD, SING YEN TOWNSHIP	PINGTUNG HSIEN	preserved duck eggs, boiled salted duck egg, salted duck eggs, salted duck egg yolk	Active
TAIWAN	TW99-699742-00	YU HO FOODS CO., LTD.	NO. 9, LANE 109, GUANGWEI RD., WANDAN TOWNSHIP, 91350	PINGTUNG HSIEN	preserved quail eggs	Active
TAIWAN	TW99-706676-00	YA NONG CO., LTD	NO. 26-6 SIASINGNAN, JHONGLI CITY	TAOYUAN HSIEN	preserved duck eggs	Active

*Amphibian includes Crocodile, Frog legs, etc.

*Game includes Emu, Kangaroo, Ostrich, Reindeer, Venison, Wild Pigs, etc.

*Poultry includes Chicken, Duck, Goose, Guinea Fowl, Partridge, Pheasant, Pigeon, Quail, Rabbit, Spacock, Squab, Turkey, etc.

Figure 4.9. Taiwan Companies Exports Salted Duck Eggs

Source: www.ava.gov.sg

4.3.3. Vietnam

Vietnam is also an ASEAN Member State. Therefore, Vietnam is one of the competitors that must be wary of. Figure 4.10. explains Vietnam companies that

export salted egg to Singapore. Out of four companies that export processed eggs, only two are exporting salted eggs. Figure 4.10. shows company data and egg products imported by Singapore from Taiwan.

Accredited Overseas Meat and Egg Processing Establishment						
Importers, exporters and competent authority of other countries may use this database to search for approved overseas establishments. Input one or more search criteria below to retrieve the required results.						
Search Result : 4 record(s) found						
Country	Establishment Number	Establishment Name	Address	Province	Products	Status
VIETNAM	VN01TM	VAN ANH NGUYEN LIMITED LIABILITY COMPANY	PHUOC THOI VILLAGE, OMON DISTRICT, CAN THO CITY	CAN THO PROVINCE	salted eggs	Active
VIETNAM	VN05VF	VIETFARM CO. LTD.	D8-D9, NHI XUAN INDUSTRY PARK, XUAN THOI SON COMMUNE, HOC MON DISTRICT	HO CHI MINH CITY	salted eggs	Active
VIETNAM	VNC55.MK	MEKO FOOD PROCESSING FACTORY	TRA NOC INDUSTRIAL ZONE, BINH THUY DISTRICT, CAN THO CITY	CAN THO PROVINCE	salted eggs	Active
VIETNAM	VNC56.VN	VINH NGHIEP PRIVATE ENTERPRISE	NO. 79 TRAN PHU ROAD, WARD 4, VINH LONG TOWN	VINH LONG PROVINCE	salted eggs	Active

*Amphibian includes Crocodile, Frog legs, etc.
 *Game includes Emu, Kangaroo, Ostrich, Reindeer, Venison, Wild Pigs, etc.
 *Poultry includes Chicken, Duck, Goose, Guinea Fowl, Partridge, Pheasant, Pigeon, Quail, Rabbit, Spacock, Squab, Turkey, etc.

Figure 4.10. Vietnam Companies Exports Salted Duck Eggs

Source: www.ava.gov.sg

The difficulty of getting data on Vietnamese salted eggs has made it difficult to identify weaknesses and excesses of Vietnamese salted eggs. However, the way Vietnamese made their salted eggs is same as Chinese make theirs. Vietnamese salted egg is popular enough because it becomes the filling of popular durian pie from Vietnam. Unfortunately, Hong Kong has banned the import of salted duck eggs from Vietnam since 2014 due to infection of bird flu.

4.3.4. Thailand

Information about Thai salted eggs is more difficult to be found. The way of making Thai salted eggs is the same as the countries already described. Figure 4.11. shows Thai company data and egg products imported by Singapore from Taiwan.

Accredited Overseas Meat and Egg Processing Establishment

Importers, exporters and competent authority of other countries may use this database to search for approved overseas establishments. Input one or more search criteria below to retrieve the required results.

Search Result : 1 record(s) found

Country	Establishment Number	Establishment Name	Address	Province	Products	Status
THAILAND	TH73-2-00859	KASEMCHAIFARM GROUP CO., LTD	169 MOO 8, BANGLEN	NAKORNPATHOM 73130	salted & preserved eggs	Active

*Amphibian includes Crocodile, Frog legs, etc.

*Game includes Emu, Kangaroo, Ostrich, Reindeer, Venison, Wild Pigs, etc.

*Poultry includes Chicken, Duck, Goose, Guinea Fowl, Partridge, Pheasant, Pigeon, Quail, Rabbit, Spacock, Squab, Turkey, etc.

Figure 4.11. Thai Companies Exports Salted Duck Eggs

Source: www.ava.gov.sg

Based on the data of salted duck eggs has been sold in Amazon, the average price per item is US\$2.2 for weight per item of 55 grams. It is worth around Rp27.000,00 per item with current currency rate.

4.4. Machine Specification

Machines may be needed are egg washing machine, conveyor, vacuum selaer, and sorting table. The specification and picture of the machine is shown in Table 4.3. Picture shown in Table 4.3. is just approximate machine image.

Table 4.3. Machine Specification

No	Item	Picture	Specification
1	Small washing machine for eggs		<ul style="list-style-type: none"> -220V / 550 W single phase -capacity : 3000 pcs /hour -material is stainless steel 304 -dimension : 1300 x 400 x 700 mm -production line : washing

Table 4.3. Continuance

2	Big washing machine for eggs		<ul style="list-style-type: none"> -110V 60Hz/single phase -capacity : 3000 pcs /hour -material is stainless steel 304 -dimension : 9760 x 1425 x 1900 mm -production line : washing, drying, sterilizing
3	Conveyor		<ul style="list-style-type: none"> -Dimension : 200 x 9760 x 1000 mm -Single phase -Conveyor speed = 4.9 until 5.2 meters per minute
4	Conveyor for sort and grading		<ul style="list-style-type: none"> -Dimension : 901 x 2634 x 1000 mm -Single phase -Conveyor speed = 4.9 until 5.2 meters per minute

Table 4.3. Continuance

5	Vacuum sealer machine DZ 400		<ul style="list-style-type: none"> -Brand: Hualian -Model: DZ-400 / 2E -Power: 1.000 Watt -Power Vacuum: 20 M3 / Hour -Sealing Bar: 2 (two) -Sealing Length: ~ 40 Cm -Width of Sealing: 1 cm -Chamber Dimensions: 44 x 42 x 14 Cm -Machine Dimension: 48 x 53.5 x 101 cm -Weight: 110 kg
6	Sorting table		<ul style="list-style-type: none"> -Dimension : 1000 x 1000 x 1000 mm -Single phase

4.5. Price List

This sub chapter explains about the price list that might be needed during calculating the cost for financial projection. The price list shown consists of material, facilities, and other cost for operational occation.

4.5.1. Material

Material consists of direct material and indirect material. Direct materials to make salted eggs are the components needed to make salted eggs, whereas indirect materials for salted eggs are packaging material needs. Table 4.4. shows the direct materials needed, unit per purchase, price per unit, and the source. Table 4.5. shows the indirect materials needed, unit per purchase, price per unit, and the source.

Table 4.4. Price List of Direct Materials

Material	Unit	Price/unit	Source
Duck egg	Item	Rp 1,800	Telor Bebek Nurushofa (Distributor Telor Bebek Yogyakarta)
Red brick	Item	Rp 700	Sentra industri bata merah Desa Duwet Ngawen Klaten
Ash rub	Sack of 25 kg	Rp175,000	Makariki AnM OLShop (www.bukalapak.com)
Salt	Sack of 25 kg	Rp 16,250	Pak Ragil (www.jualgaramxx.blogspot.co.id)

Table 4.5. Price List of Indirect Materials

Material	Unit	Price/unit	Source
Egg tray carton contents 30	Bal	Rp35,000	CV Gavin Corporation (www.dokterunggas.com)
Cardboard	Sheet	Rp10,000	Agus Harianto (www.agromaret.com)
Vacuum plastic	Sheet	Rp 300	www.wirapax.com
Duct tape	Item	Rp 7,000	Sami Laris Klaten

4.5.2. Facilities

The main facilities needed is building. Table 4.6. shows the specification of rented storage around Klaten in order to be compared to know the most suitable location for the business.

Table 4.6. Price List of Leased Warehouse

No	Picture	Specification	Price	Source
1.		<ul style="list-style-type: none"> -Leased roadside warehouse. -Land area : 1,000 m² -Building area : 500 m² -Address : Jl. Penggung Karang Anom km 1 Klaten -Facilities : Cartport, telephone, garden, garage -Suitable for garment, warehouse, school, LPK, restaurant, etc. 	Rp50,000,000.00	Mr Ian 082225009234
2.		<ul style="list-style-type: none"> -Leased warehouse. -Land area : 1,000 m² -Building area : 1,000 m² -Address : Trucuk, Klaten -Former used: warehouse and oven shots -Freehold title -Including unfurnished furniture -Needed renovation -Electricity : 900 Watt 	Rp30,000,000.00	https://www.rumah123.com/detail-gudang-disewa-di-trucuk-klaten-1495422-id.html

Table 4.6. Continuance




3.		<ul style="list-style-type: none"> -Leased warehouse. -Land area : 5,200 m² -Building area : 5,000 m² -Steel construction area : 1,750 m² -Freehold title -Address : Batur, Klaten -Suitable for warehouse or factory. -Strategic location and safe. -Electricity : 23000 Watt -Industrial area -The structure is sturdy and strong -Asphalt road mobility for incoming containers -Waterflow is good. -Front area : 23 m² -Minimum leased : 5 years -Without intermediaries 	Rp150,000,000.00	http://olx.co.id/iklan/disewakangudang-luas-5000mkonstruksi-baja-1750m-klaten-jawa-tengah-IDnZNOb.html#89786865f0
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Table 4.6. Continuance

4.		<ul style="list-style-type: none"> -Leased warehouse. -Land area : 800 m² -Building area : 400 m² -Address : Jalan raya Jatinom-Boyolali km 0.5, Bonyokan, Jatinom, Klaten -Former used: rice milling 	Rp45,000,000.00	http://olx.co.id/iklan/dikontrakkan-disewakan-gudang-diwilayah-jatinom-klatenstrategis-IDnHGz3.html#89786865f0
5.		<ul style="list-style-type: none"> -Leased warehouse. -Land area : 2,296 m² -Building area : 1,000 m² -Address : Ceper, Klaten -Suitable for restaurants -Good condition, safe environment, asphalt road mobility for incoming trucks, near market -Electricity : 2300 Watt -Consists of 4 bedrooms and 9 bathrooms, freehold title 	Rp100.000.000,00	https://www.rumah123.com/detil-gudang-disewa-di-ceper-klaten-2001409-id.html

Table 4.6. Continuance

6.		<ul style="list-style-type: none"> -Leased warehouse. -Land area : 2,000 m² -Building area : 1,850 m² -Address : Trucuk, Klaten -Good condition, safe environment, asphalt road mobility for incoming trucks -Electricity : 2500 Watt -Freehold title 	Rp156,000,000.00	Mr. Anton 083866016868
7.		<ul style="list-style-type: none"> -Leased warehouse. -Land area : 1,070 m² -Building area : 950 m² -Address : Jogonalan, Klaten -Electricity : 1300 Watt -Freehold title 	Rp100,000,000.00	Mr. Tri (085729869850 / 085228828229)

Plant facilities contains of machines that might be needed, the needs for office rooms and plant support needs, also furnitures. Table 4.6. shows the price and source of machines and tools. Table 4.7. shows the price and source of office and plant support facilities. Table 4.8. shows the price and source of furnitures.

Table 4.7. Price List of Machines

Machine / Tool	Price	Source
Hand Truck	Rp 520,000	www.alatproyek.com
Conveyor 2.7 m x 52 cm	Rp10,000,000	Pak Jusuf Boyolali
Digital Scales Cyprus 5kg (TK-0163)	Rp 129,000	www.tokopedia.com/sinarasia
Small washing machine	Rp32,160,000	www.alibaba.com
Crates basket	Rp 57,000	Toko Muda Klaten
Brick crushing machine	Rp 8,000,000	Pak Jusuf Boyolali
Conveyor 9 m x 10 cm	Rp10,000,000	Pak Jusuf Boyolali
Wooden Crates	Rp 7,000	Jogja Telor
Big washing machine	Rp42,880,000	www.alibaba.com
Vacuum sealer machine	Rp13,000,000	www.sediamasin.com
Seal stamp	Rp 170,000	Toko Sumber Kawruh Klaten
Ladder	Rp 708,000	www.bhinneka.com
Water pump Shimizu - Jet Pump PC-268 BIT	Rp 1,545,000	Toko Besi dan Bangunan Kota Baru Klaten
Water reservoir penguin 1200 liter	Rp 1,450,000	Toko Besi dan Bangunan Kota Baru Klaten

Table 4.8. Price List of Office and Plant Equipments

Machine / Tool	Price	Source
AC Split R410A Samsung AR5KRFLAW 1/2 PK 1/2PK Remote Standard Lokal	Rp 2,350,000	Toko Happy Elektronik Klaten
Computer HP Pavilion HPE H8-1192D	Rp 5,562,000	Pak Martin Klaten
AC Samsung Split AR9KRFLAW 1 PK - PutihStandard Lokal	Rp 2,600,000	Toko Happy Elektronik Klaten

Table 4.8. Continuance

Plants	Rp 98,000	Toko Tanaman Bendogantungan
Filing cabinet Brother	Rp 1,800,000	Palace Furniture Store Klaten
Phone	Rp 176,800	Toko Laris
Fax Machine Panasonic KX	Rp 1,200,000	Jogja Tronik
Printer Canon Multifunction Printer E510	Rp 1,199,000	Jogja Tronik
Fan	Rp 335,000	Toko Laris
Gas stove	Rp 385,500	Toko Laris
Locker	Rp 1,340,000	Palace Furniture Store Klaten
Eversafe fire extinguisher abc drABC Dry Chemical Powder 4,5 ABC Dry Chemical Powder 4,5 Kg (ABI-4.5P)	Rp 860,200	Antibara Indonesia

Table 4.9. Price List of Furnitures

Machine / Tool	Price	Source
Tub	Rp 800,000	Tukang bangunan Pak Joko
Sorting table	Rp 3,000,000	Pak Jusuf Boyolali
Philips yellow light 8 watts	Rp 20,000	Toko listrik Sinar Mulia
Table for scale	Rp 550,000	Tukang kayu Pak Mastur Klaten
Coating table	Rp 450,000	Tukang kayu Pak Mastur Klaten
Small table	Rp 280,000	Tukang kayu Pak Mastur Klaten
Packaging table	Rp 500,000	Tukang kayu Pak Mastur Klaten
Pallet	Rp 1,100,000	Tukang kayu Pak Mastur Klaten
Chair	Rp 235,000	Tukang kayu Pak Mastur Klaten
Table	Rp 500,000	Tukang kayu Pak Mastur Klaten
Long table	Rp 950,000	Tukang kayu Pak Mastur Klaten
Lounger	Rp 525,000	Tukang kayu Pak Mastur Klaten
Kitchen table	Rp 1,500,000	Tukang bangunan Pak Joko
Small table	Rp 400,000	Tukang kayu Pak Mastur Klaten

Table 4.9. Continuance

Sofa	Rp 2,150,000	Palace Furniture Store Klaten
Chair	Rp 250,000	Tukang kayu Pak Mastur Klaten
Coffee table	Rp 679,000	Palace Furniture Store Klaten
Lamp Philips TL tornado T3 24 watt	Rp 40,000	Toko listrik Sinar Mulia Klaten
Gypsum	Rp86,425,335.81	Kontraktor Pak An
Electrical and plugs installation	Rp 245,000	www.indomechanical.com
Electrical and plugs for AC installation	Rp 275,000	www.indomechanical.com
Phone installation	Rp 450,000	Telkom Klaten
Lamp Philips Tornado 20w White	Rp 30,700	Toko listrik Sinar Mulia Klaten
Door	Rp 1,000,000	Tukang kayu Pak Mastur Klaten

4.5.3. Other Costs

Building new business also has some costs exclude materials and facilities planning. There are also costs for operation and distribution activities. Table 4.8. shows the price list of shipping cost from Semarang to Singapore by shipment.

Table 4.10. Price List of Shipping Cost

Item	Price (\$)	Price (Rp)
Container refer 20 feet	US\$850	Rp 11,327,950
Container refer 40 feet	US\$1000	Rp 13,312,000
Shipping document and administration cost	US\$35	Rp 465,920
Export license cost	S\$87	Rp 850,450

Operational cost also considers the regional wage of their employees. The regional wage for Klaten in 2017 is Rp1,528,000 (Source: Klaten Employment Agencies). The inflation rate per December 2016 is 3.02% (Source: www.liputan6.com).