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“Armberry”: Penetrating the Emirati & Russian Markets

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1. Executive Summary

Since the inception of its berry producing activities, “Armberry” CJSC seeks potential markets for its raspberry and blackberry products. In particular, it targets the respective markets of the United Arab Emirates and the Russian Federation, as its first choices for expansion. Within the framework of this project, a research has been conducted to obtain key insights and country-specific knowledge about the process of penetrating the above mentioned markets.

The paper presents the results of the research, in two core sections:

1. *Observation of target markets:*

First and foremost, Armberry should definitely take the opportunity of exporting its products both to Russia and United Arab Emirates, as both markets have been in immense growth for the past five years. From 2011 to 2016, the CAGR for the Russian market was 15% and for the Emirates its 26%.

The import trend of berry markets in the Emirates indicates that it will continue to demand imports. On the other hand, the Russian market has internal production, which is targeted to be increasing over time. However, at the moment, the internal production doesn't even cover 35% of the market.

The research conducted towards the price relation of organic and non-organic berries, shows that in the Emirates organic berries are on average 1.9 times more expensive than non-organic. Similarly, in the Russian market, the price of organic berries is 2.15 times higher. Hence, Armberry should consider this in its direction of product development.

By collaborating with the head of Armberry, approximate cost estimations have been reached: for Emirates – 3.74 USD per kilogram of berries; for Russia – 2.92 USD (in 250 kg portions). The range of prices at which importers realized their products in recent years is identified as 8-15 USD per kilogram for Emirates and 9-16 USD per kilogram for Russia. Hence, based on these information, approximate profit margins (in 250 kg volumes) have been calculated to be: for Emirates – 114% and for Russia – 208%.

2. *Market penetration process:*

The typical supply chain leading to the entrance of berry market involves three players: 1) producer, 2) trader or logistics center and 3) direct seller.

For the purpose of entering the Emirati market, Armberry must cooperate with a “middleman” trader. Based on their legislature the city of Dubai is the main location of import for all food products and the entire aspect relating these products is closely scrutinized by the city municipality. In addition, there are relevant licenses necessary for directly selling food products to the local supermarkets. These licenses are granted by the municipality of Dubai and are given only to local trader/logistics companies. For the purpose of entering the Russian market, an Armenian company like Armberry would face exactly the same administrative challenges as a company that local to that market. This is due the fact that

together with Russia, Belarus and Kazakhstan, Armenia is also a member of the EurAsian Economic Union. To enter the Russian berry market, Armberry can easily surpass the “middleman” companies which would help to maintain profits for itself. However, in order to create a large exposure to the market and to be able to instantly sell the perishable products, it would be better to cooperate with an established Russian company.

As to the method of transportation, it becomes clear that airlines are the best option. Particularly, for the case of transporting products to the Emirates, there are two airlines to cooperate with:

- “Fly Dubai”
- “Air Arabia”.

By comparing the cargo rates and flight frequencies of both airlines, it becomes evident that “Fly Dubai” should be the first choice.

For the case of transporting products to Russia, Armberry should cooperate with at least three airlines:

- “Siberia Airlines”
- “Aeroflot Airlines”
- “Ural Airlines”

None of these airlines are capable of single-handedly providing exposure to all major cities of Russia, but a good simultaneous cooperation with all of them would solve the problem of transporting.

By summarizing the research findings, it should also be added that Armenia has very well established cooperative economic relations with United Arab Emirates and Russia. Hence, there should not be any administrative or legal obstacles for Armberry. The main concern for an importer of berries should be the quality of the products and the consistency of its supply. With its capacity of about a dozen hectares, Armberry shall have no problems in providing demanded quantity of berries at a very high quality.

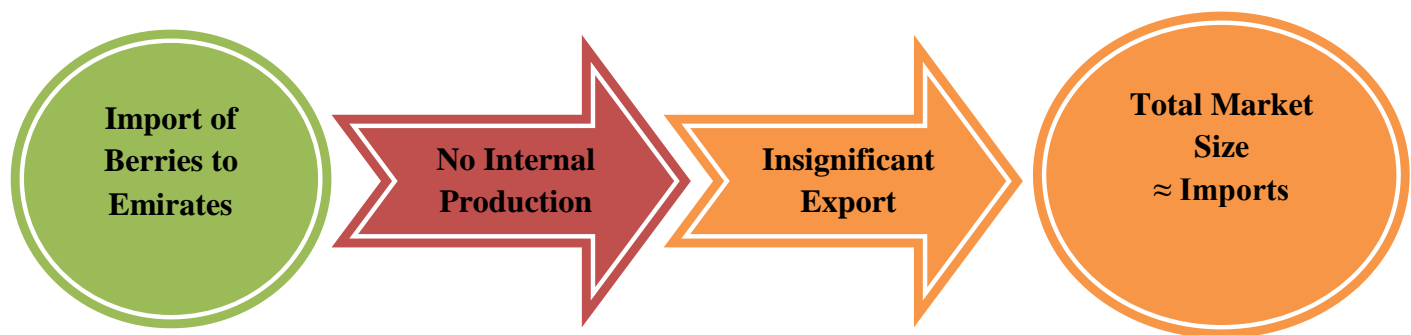
2. Introduction

“Armberry” CJSC (later referred as *Armberry*, only) is a local company based in the city of Yeghvard in Kotayk region. It is specialized in producing various types of berries, though the two current products are blackberry and raspberry. The company’s capacity in respect to arable land is huge. However, due to being a relatively “young” company, its current production volumes are modest and are sold fully in the local market. Ever since its formation, the company has a mission to successfully grow and export berries from Armenia. Therefore, it’s in a continuous search of opportunities to penetrate other markets. Based, on the apparent underserved condition of the Emirati and Russian berry markets, Armberry targets them as the primary choices for its expansion.

3. Observation of Target Markets

The core of this project paper is the observation of the overall state of berry markets of the target countries. More specifically, the market of raspberries and blackberries is the point of interest. Hence, a close observation of the raspberry and blackberry markets is required.

The case is simpler with the Emirati markets, as the market of raspberries and blackberries is pretty much equal to the volume of the imports. Due to their geographic location and environmental conditions, the Emirates do not have an internal production of raspberries and blackberries. However, there is a huge potential for global fresh fruits providers to sell top quality produce at a premium, especially berries, provided exporters can guarantee supply consistency and find the right local partner. The below graph explains the movement of berry goods in the Emirati market:



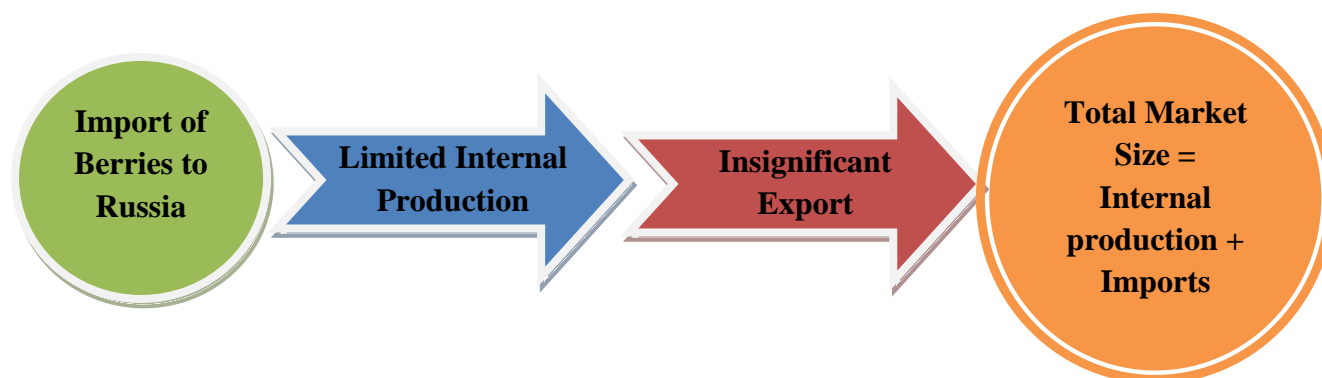
Dubai is the country's established port of import for all food products. It offers great growth prospects thanks to its burgeoning tourism sector and a booming population that is driven by a diverse community of expatriates, including westerners, Arabs and South Asians. As such, it is thought that consumers would be willing to pay a premium, if Armberry can deliver a premium offer with great quality, flavor and freshness as close to just picked as possible. But in order to succeed, Armberry must not only deliver top quality produce but guarantee consistency in its supply.

In addition, the key is to find a local importer or distribution partner that has the ability to maintain the cool chain for Armberry's products, given that selling direct to most retailers in the Middle East is not feasible. Various observations on the Emirati market also suggest that it is important for exporters to offer creativity in terms of packaging. Particularly, in the berry category, consumers would resonate well with smaller-sized and pre-packed options of packaging.

In case of Russia, the market for raspberries and blackberries is comprised of imports and local production. Due to Russia's current economic policy of import substitution, it is now in the process of increasing the local production in expense of imports. Particularly, the Krasnodar Territory, Saint Petersburg, Sverdlovsk Region and Rostov Region are the areas, where berries are being grown locally.

The gross yield of fruit and berries in Russia demonstrates fluctuating dynamics driven by climate conditions and crop capacity of each year. Import of fruit and berries is subject to

seasonal fluctuations. As to the export of berries from Russia, it can be viewed as insignificant, as according to the State Statistical Service of Russia, only 0.5% of domestically produced berries are being exported. By disregarding, the tiny portion of exports, it can be safely concluded that the Russian market for raspberries and blackberries is equal to sum of imports and local production. The below graph shows the movement of berry goods in the Russian market.



3.1 Market Size

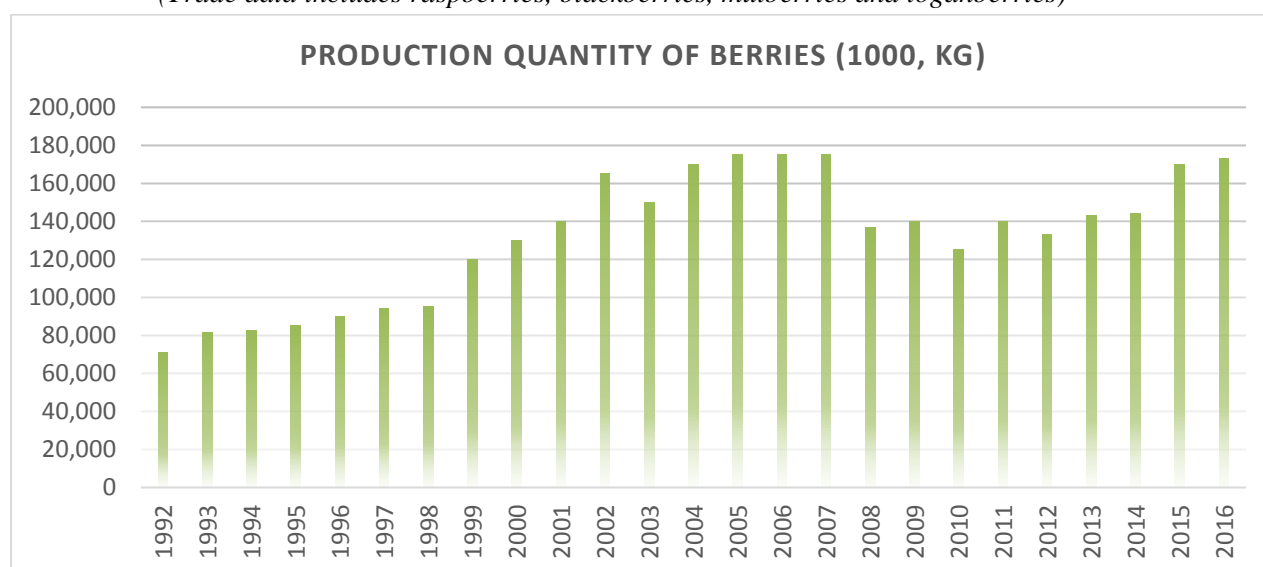
The Agriculture Ministry of Russia has developed and implemented an import substitution policy. This policy brings with it amendments which add new minimal level of self-sufficiency in fruits and berries – 70 % by 2020.

As a result of the research it has been founded that in 2016 the top ranking countries who are raspberry producers were the following: Russian Federation with 133 thousand tons, Poland with 120 thousand tons, USA with 100 thousand tons, and Ukraine with its 30 thousand tons.

During recent five year-period Russian market of fresh berries demonstrated robust growth. The trend of market volume increase was mainly driven by growing import. However, last year growth slowed down, so the review market saw just 0.1% year-to-year increase in volume. Import of fresh fruit/berries also demonstrated unimpressive growth – by 0.2% in volume.

Production volume of berries in Russia (see Graph 1) is not enough to satisfy domestic demand. Subsequently, the share of imported berries is large. According to the recent estimations of Russia's Ministry of Agriculture it is close to **67%**.

Graph 1. Production quantity of berries in Russia
(Trade data includes raspberries, blackberries, mulberries and loganberries)



As there is no in-house raspberry and blackberry production in UAE, the import volumes of berries are considered as the overall market. Table 1 summarizes the market volumes for Russia and UAE. As a major trend of this markets, it should be noted that both of the markets have been expanding for the past 5 years.

Table 1. Market Size (kg)

Years		2011	2012	2013	2014	2015	2016
Russia	Internal production (kg)	149,700	142,000	153,000	152,600	152,300	161,400
	Import (kg)	1,017,000	1,444,000	4,084,000	2,014,000	1,292,000	2,205,000
	Market size (kg)	1,166,700	1,586,000	4,237,000	2,166,600	1,444,300	2,366,400
UAE	Import/Market size (kg)	324,000	852,000	1,463,000	1,817,000	2,087,000	2,026,000

By taking into consideration the obtained data regarding the berry market size for the period 2011-2016, the CAGR of the berry market for Russia can be calculated as follows:

$$(2,366,400 / 1,166,700)^{1/5} - 1 = 0.1519 = \underline{\underline{15.19\%}}$$

So, the Russian berry market's Compound Annual Growth Rate for the past 5-year period was approximately **15%**.

The same CAGR indicator was also calculated for the Emirati market:

$$(1,026,000 / 324,700)^{1/5} - 1 = 0.2592 = \underline{\underline{25.92\%}}$$

So, the Emirati berry market's rate of compound annual growth for the period of 2011-2016 was approximately 26%.

3.2 Organic vs Non-Organic Berries

➤ Russia

Organic products are considerably more expensive than conventional non-organic products. High certification costs, transport, customs, storage and production costs account for high pricing. In Russia, organic products are usually 2–5 times more expensive than non-organic products.

Russia's consumers in general are socially responsible only in the major cities like the capital city of Moscow, Saint-Petersburg and other cities that have a population exceeding 1 million people. Organic products are mainly consumed by the residents of these cities. Moreover, it should be mentioned that Russia's organic market is mainly occupied by products of import. According governmental estimations more than 90% of the organic market is comprised of imported products.

It should be noted that particularly for berries, the data of the UN's Food and Agriculture Organization does not list all berry types by differentiating the growing method. Thus the direct comparison of organic vs. non-organic market volumes is not possible in all cases. The key organic berries are blueberries and cranberries.

Traditionally, organic products are available in specialized stores, gourmet supermarkets, online shops or pharmacies (see Table 2). The prices for organic raspberries & blackberries vary from 368 – 600 rub per 125g box, whereas for non-organic raspberries & blackberries prices vary from 170-280 rub per 125g box respectively. By assuming an exchange rate of 1 USD equaling 56 rubles, we can have the below presented simple comparison:

Averaged Organic Price - 484 rubles, which approximately equals **8.6 USD**.

Averaged Non-Organic Price – 225 rubles, which approximately equals **4 USD**.

Therefore, it can be concluded that the price of organic berries is on average **2.15** times higher than the price of non-organic products.

Table 2. Organic retailers and supermarkets (Russia)

Organic supermarkets	Gourmet retail chains	Online shops
“Bio Market” (www.bio-market.ru)	Azbuka Vkusa (http://av.ru)	Lavka-Lavka (http://spb.lavkalavka.com)
“Arivera” (http://arivera.ru)	Globus Gourmet (http://globusgurme.ru)	Vse Svoe (www.vse-svoe.ru)
	Land (http://supermarket-land.ru)	Alekhovshina (www.alekhovshina.ru)
	Zeleny Perekestok (www.perekrestok.ru)	Zhivoe Pole (www.zhivoepole.ru)

➤ UAE

Due to its geographic location, the Emirates are an arid country with limited agriculture. Therefore, they have food imports for about 90% of their needs.

Various international researchers have conducted analysis of the general fruits and vegetables market of the Emirates. One of these researchers of Euromonitor International, which states that only in 2015, over \$16.3 million worth of packaged organic food has been sold in UAE. Additionally, this number is expected to grow up to \$21.1 million by the year of 2018.

In the UAE, organic products are sold in health food stores or in the health/organic sections of supermarkets, as well as in specialized retail stores (see Table 3).

Table 3. Organic retailers and supermarkets (UAE)

Retail Side	Major Supermarkets
Spinneys (www.spinneys.com)	Organic Foods & Café
Waitrose (www.waitrose.com)	Jones the Grocer (www.jonesthegrocer.com)
Lulu (http://uae.luluhypermarket.com)	The Taste Initiative (www.thetasteinitiative.com)
Choithram (www.choithram.com)	Baker & Spice (www.bakerandspicebakery.com)
Carrefour (www.carrefouruae.com)	

Consumers tend to look for European and North American suppliers when it comes to organic and health foods. This probably relates to trust in certification and quality. Consumers are willing to pay higher prices with a premium for certified organic food.

With a thorough research of the online outlets, the prices for organic raspberries & blackberries have been found to vary from 25-30 dirhams per 125g box, whereas for non-organic raspberries & blackberries prices are from 13-17 dirham per 125g box.

By assuming an exchange rate of 1 USD equaling 3.7 Emirati dirhams, we can have the below presented simple comparison:

Averaged Organic Price – 28 dirhams, which approximately equals **7.9 USD**.

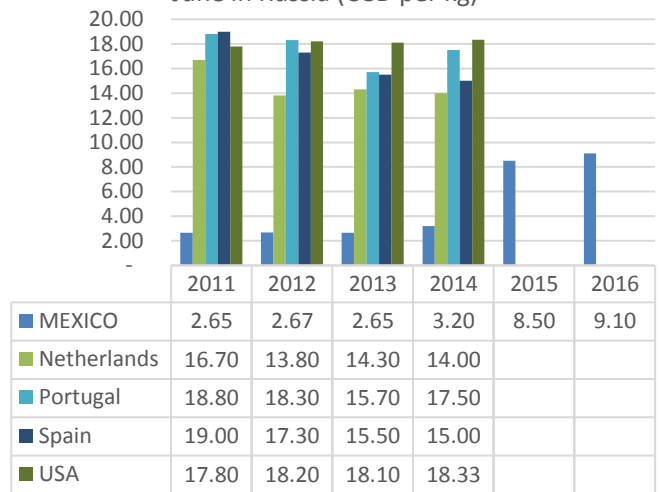
Averaged Non-Organic Price – 15 dirhams, which approximately equals **4.1 USD**.

To summarize, it can be seen that the price of organic berries is **1.9** times higher than the price of non-organic products. This should serve as an indicator for Armberry direction in its product development. In other words, Armberry should try to get all necessary regulations in order to be able to present its products as “organic”. This way, it would be able to gain huge profits.

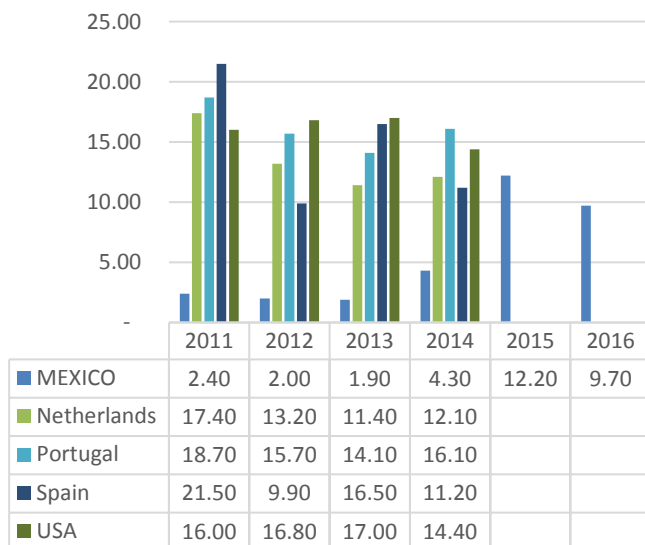
3.3 Seasonality

Fruits and berries' prices can fluctuate due to seasonal changes in temperature, weather and availability. The seasonality varies from country to country, therefore imported berry prices differ during the year. For the most general case, May is the month when the blackberry season starts, and it can last until the end of August. For raspberries, the season opens in mid-June and extends up till the beginning of November. It is important to mention that there is an inverse relationship between the volume and price of blackberries and raspberries at the retail level. However, for due a high global demand these berries tend to command from average to high prices for the whole year.

Graph 2. Imported berry price from November-June in Russia (USD per kg)



Graph 3. Imported berry Price from July-October in Russia (USD per kg)



Graph 2 & 3 (Seasonal prices of imported fresh raspberry, blackberry, mulberry and loganberry) demonstrate how the prices are changing from November-June to July-October in Russia. As we can see, the difference in prices depends on the country of origin. As for Netherlands and Mexico the prices more or less stay constant due to the weather conditions and developed greenhouse systems. In contrast, the import prices of Portugal, Spain and USA slightly differ for these periods.

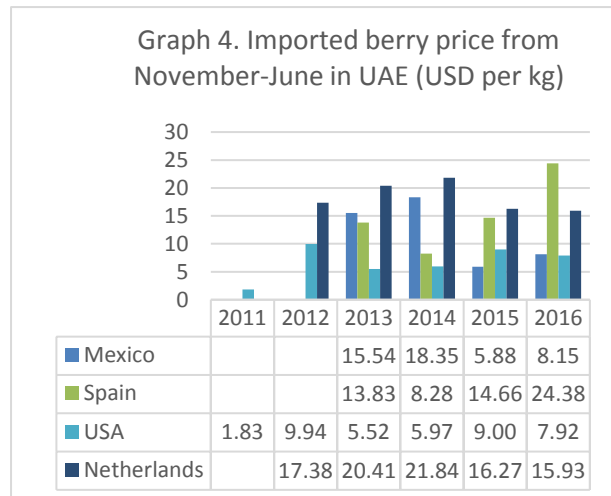
As it can be seen in the Graph 2 and 3, since 2015, the only major importer to Russia is Mexico. The

reason behind this have been the sanctions, which have been applied against Russia since the October of 2014. It can also be seen in the graph that the price per kg for berries imported from Mexico to Russia has been tripled, because of lack of competition. It should be noted that there are a few other countries which have been exporters of Russia despite of the sanctions. However, the graph does not include them, due to their insignificant size. By viewing the graph 3, it can be concluded that Armberry's products would be realizable at a price between the **9-16 USD** range.

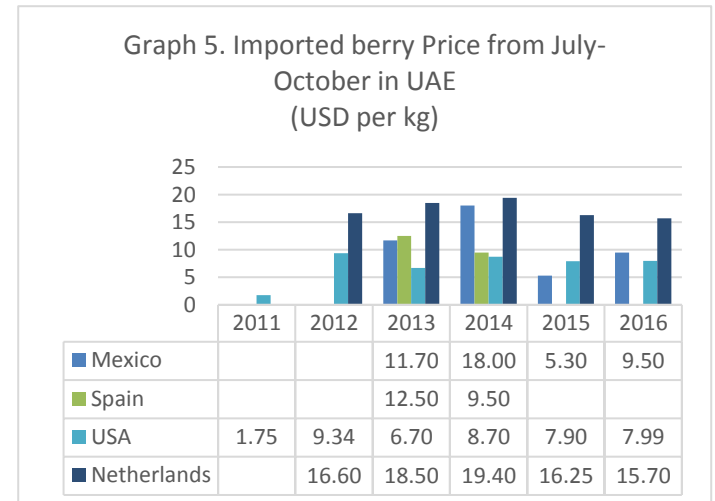
Analyzing seasonal prices of imported berries in UAE, we can conclude that for November-June prices are higher than for July-October. This is obvious especially comparing the import prices for Mexico, Spain and Netherlands (see graph 4 & 5).

Seasonality is the key pricing peculiarity: when ground grown fruit/berries are available prices go down but when supply is provided only by greenhouses import prices rocket.

The weather of Armenia requires for Armberry's products to be collected in the period of July-October. Hence, it is purposeful to make inferences from the Graph 5. As it can be seen, for the period of



July-October, in the past two years the three major importers of berries were Mexico, United States and Netherlands. The price of berries imported from the United States and the Netherlands has been relatively constant. In contrast, the price of berries imported from Mexico seems to fluctuate. All in all, it can be seen that vast amounts of berries are being imported at a price in between the **8-15 USD** range. Therefore, Armberry's pricing for its products would be realizable in between this range. Although it can't be concluded that any price above these ranges will not be acceptable. As we see earlier in the paper, the markets have been growing constantly in the past and this means on the side of a huge underserved portion of the market, any price could be realizable, if the quality of the products are very high.



3.4 Cost Estimation and Feasibility

In order to be able to have a quantified back-up to the recommendation of whether Armberry should pursue the opportunity of exporting or not, a feasibility analysis was conducted as follows in the below paragraph:

The year of 2017 is the first official year of production for Armberry, and the harvesting period will start in July. Based on the experience and calculations of the head of Armberry, it is expected to yield about 6,000 kg of berries, at an approximate cost of **2 USD per kg**. This volume will be harvested part-by-part and periodically. It is planned to transport these quantities at **250 kg** portions. As discussed and agreed with the head of Armberry, the cost of goods sold for Armberry's products would roughly be the production costs plus also

the to-be-incurred costs of insuring and transporting these 250kg packages. As a result of research, it was founded that the insurance cost for a typical package of berries is fixed at 7000 AMD, which is equivalent to **15 USD**. Subsequently, the respective rates (presented in detail in Section 4.3 of this paper) for airline transportation have been founded to be:

To Emirates with “Fly Dubai” - fixed **21 USD** and **1.6 USD per kg**

To Russia with “Siberia Airlines” – fixed **15 USD** and **0.8 USD** per kg

By incorporating the above information, an approximate calculation was conducted to find the cost of goods per kilogram of berries – up until the point of entering the target markets:

Calculations for the **Emirati** market:

The total production, insurance and transportation costs of 250 kg of berries would be:

Production - $250 \times 2 \text{ USD} = \mathbf{500 \text{ USD}}$

Insurance - fixed per package = **15 USD**

Transportation – $250 \times 1.6 \text{ USD} + 21 \text{ USD} = \mathbf{421 \text{ USD}}$

Total cost of 250 kilograms – **936 USD**

Conclusion for entrance to the Emirates:

COGS per kg until the point of entering the market: $936/250 = \mathbf{\underline{3.74 \text{ USD}}}$

As it can be seen in the previous section, for the past 5-years all berry importers to the Emirates sold their goods in between the range 8-15 USD. Moreover, for the period of 2011-2016 the market had a cumulative annual growth rate of 26% and is continuously growing. Therefore, it is safe to conclude that, with its current levels of production, Armberry would incur costs of about 3.74 USD per kg, which would later sell for at least 8 USD per kg. This scenario provides a profit margin of: $(8-3.74)/3.74 \times 100\% = \mathbf{\underline{114\%}}$

Calculations for the **Russian** market:

The total production, insurance and transportation costs of 250 kg of berries would be:

Production - $250 \times 2 \text{ USD} = \mathbf{500 \text{ USD}}$

Insurance - fixed per package = **15 USD**

Transportation – $250 \times 0.8 \text{ USD} + 15 \text{ USD} = \mathbf{215 \text{ USD}}$

Total cost of 250 kilograms – **730 USD**

Conclusion for entrance to Russia:

COGS per kg until the point of entering the market: $730/250 = \mathbf{\underline{2.92 \text{ USD}}}$

It has been presented in the previous section, that for the past few years, berry importers to Russia were able to sell their goods in between the range 9-16 USD. Also, for the period of 2011-2016 the market had a cumulative annual growth rate of 15% and is continuously growing. Therefore, it is safe to conclude that, with its current levels of production, Armberry

would incur costs of about 2.92 USD per kg, which would later sell for at least 9 USD per kg. This scenario provides a profit margin of: $(9-2.92)/2.92 \times 100\% = \underline{\underline{208\%}}$

4. Market Penetration Process

In general, the process of penetration to the Emirati and Russian markets do not present any major obstacles, due to the fact that both of these countries have an open culture for economic cooperation. Particularly, the relations of Armenia and the Emirates have recently been improved furtherly, thanks to the UAE visit of President S. Sargsyan. As to the economic cooperation of Armenia and Russia, procedures and policies are quite simplified, as both are members of the EurAsian Economic Union. The topics of below paragraphs have been identified as key points for understanding the market penetration process in general.

4.1 Optimal Supply Chain

A typical process of producing and exporting berries, suggests that there are three types of players relevant to the supply chain of berry producing companies:



In this situation, for the producer company there are two scenarios of establishing its supply chain:

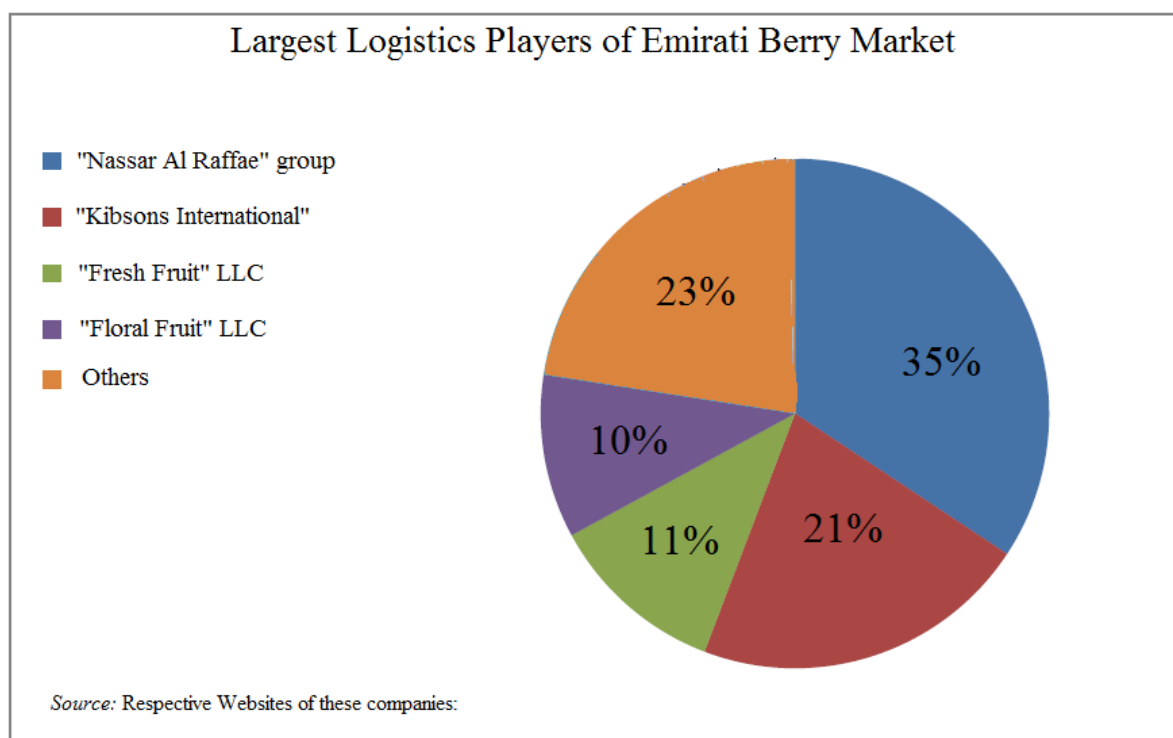
- ✓ Directly sell to the stores, which would make the products available to the public,
- ✓ Acquire the intermediation of a trader-company with a logistics center.

By researching the accepted practices in Emirates, it has been founded that at this stage, Armberry could best benefit if it would incorporate a trader-logistics company into its supply chain in order to be able to penetrate the Emirates market. In case of the Russian market, it can forego the services of intermediary companies.

Due to the fact that, ever since 2015, Armenia has been a member of the Eurasian Economic Union, exporting goods to Russia has become very easy as Armenian company face almost the same challenges as the companies operating in Russia. So, there are no specific hardships in trying to establish or maintain a partnership with a supermarket chain in Russia. Therefore, Armberry should sell its goods directly to the supermarkets without the facilitation of logistics centers, as this is both financially and economically beneficial.

In order to make specific recommendation, some of the biggest supermarket chains currently operating in Russia have been researched. There are many companies specialized in fruits and berries sales. One of these companies is “Magnit” CJSC. It has hypermarkets and store in over 700 locations and has suppliers from all over the world, including nine of the former Soviet Union Republics. By stressing the fact that Armenia is a full-member of the Eurasian Economic Union and the immense scale of berry sales at “Magnit”, Armberry could easily pave the way for its products to the Russian customers.

As to the establishment of its supply chain in the Emirates, it is recommended for Armberry to utilize the intermediation services of the logistics centers by selling its products to them. A research of the online sources has shown that this is the widely-accepted practice in the Emirates and has been efficiently applied for decades. Due to their culture of being cautious with letting foreign entities enter their market, almost all types of goods have to be first sold to an Emirati trader, which would later sell it to its citizen. This is the case, with two of the biggest berry exporting companies in Armenia. These companies are “Biga” LLC and “Klubnichnaya Polyana” LLC. They are exporting products by partnering with an Emirati logistics company. As a result of the research, four of the biggest logistics companies established in the Emirates have been identified. These companies cover large portions of the markets. Approximate estimations of their market share is presented in the below graph:



All of these companies are operating in the city of Dubai and are responsible for the significant portion of supplying fruits to the major hypermarkets like “Lulu”, “Union Coop”, “Carrefour” and “Geant”. The details and contact information of these companies are provided in Appendix 3.

4.2 Supplying Conditions

The search of the optimal supplying conditions, require the analysis of characteristics of both raspberries and blackberries, which are the two products of export for Armberry. They belong to the same family of berries and almost all of their characteristics are shared in common. Both of these berries are fast-growing and usually have very short lives. Their canes are thorny and rich in antioxidant. The best environment for the growth of these berries is an open, sunny location that has a good air circulation, which enables the prevention of

diseases. Both raspberries and blackberries can be grown in a range of soil types but its best to grow them in a well-draining soil mixed with organic matter. Subsequently, they have a very short shelf-live, which can be as short as one or two days if the conditions are warm. There are no specific optimums for harvest and these berries can be picked up at different stages for different purposes. This is thanks to the fact that the ripening and the development of color continue also after harvesting, while storage. Raspberries and blackberries are allowed to be shipped in mixed loads, as they have the same demands in respect to transporting conditions. It is important to mention that the most critical condition is the temperature. By widely-accepted practice of berry exporting companies shows that berries can be only handpicked, after which they have to be placed in their containers once and for all. This means, that the berries have to be very delicately placed in boxes, which weigh not more than 250mg. Since, raspberries and blackberries are very perishable, Armenian berry exporting companies like “Klubnichnaya Polyana” and “Biga” are applying the technology of providing freshness with the instant cooling method. The instant cooling method infers that the temperature of the fruits must be rapidly reduced to 1°C after the berries are handpicked. For this purpose the cooling with forced air pressure is effective as the metabolic activity (the primary cause of perishing) is minimized by low temperature. Since the transportation period to target markets is just a few hours by plane, the instant cooling technology would suffice for Armberry. The instant cooling technology is easily applied if the berries are gently placed in hinged boxes that also have holes. The holes are very important, as the respiration rate of these types of berries is very high. It is critical for the boxes to benefit from the holes to take inside the fresh air.



As a result of research an Armenian plastics producer company – “OvalPlast” has been identified as a provider of plastic containers. As a result of a visit to this company, it has been founded that they are currently supplying similar containers to exporters with similar needs. More specifically, they have two different volumes (125mg and 250mg) of hinged boxes with wholes, which are designed exactly for berries. It is recommended for Armberry, to seek partnership with this company as they also have the capacity to organize mass production based on the requests of potential

buyers. The above image can be viewed for imagining the essence of the desired packaging. The storage life of raspberries and blackberries can be made longer by modifying atmospheres. However, these fruits remain among the group of quickly perished goods. Reasonably, their transportation would not be risk-free by any other means of transporting, besides airlines. Transporting through planes is the fastest and most efficient way of transporting berries from Armenia to the Emirates and Russia. This statement is backed by the accepted practice of many currently exporting companies active in Armenia. However, it should be noted that, since in the beginning, Armberry’s products would not comprise a large volume, then it would have to send its products as “white cargo”.

4.3 Transportation of Goods

It is evident that due to the quick perishability of raspberry and black berry, the only means of transportation would be through air. More specifically, due to the initially small quantity, the products have to be transported as, so called “white cargo”. To understand how much would the transportation cost, one must know the international standard procedure which is the following: a volume-weight calculation by multiplied “Length” by “Height” and by “Width”. Then the obtained number is multiplied by the number of pieces. Finally, then this number is divided by six thousand. The resulting number is then compared with the actual weight of the goods. Whichever one is higher, is then taken as the weight by which the rate would be multiplied. Since, the exact parameters of the packaging for “Armberry’s” goods are still unknown, the below rates are approximated based on the experience of other berry exporting companies.

➤ **Transportation to United Arab Emirates**

For the purpose of transportation to the UAE market, targeted and analyzed were the two airlines with the most frequent flights: “Fly Dubai” and “Air Arabia”.

“Fly Dubai” – This airline has 1 flight per day from Yerevan to Dubai, 7 days a week. They are currently helping some other berry producing companies to export their products to the Emirates. Based on their experience with the average volume-weight combination of berry packages, the rates have been obtained and are presented in Table 4. The rates of Fly Dubai actually are in Armenian Drams, however in the Table 4, they are presented in United States Dollars for the sake of easy comparison. The assumed exchange rate is: 1 USD equals 484 AMD. As to the process, the company requires the information on the exporting company, the receiving company, product weight, volume and details. Afterwards, they prepare the airway bill, which the exporter uses to take the goods to the cargo terminal.

“Air Arabia” – This airline has 3 flights per week from Yerevan to Sharzha. Sharzha is a city located just 20 minutes from Dubai. One of these flights should be disregarded for product transportation, because it’s on Sunday, which means that the goods have to be at the terminal on Friday and stay there for 2 days and be transported. The rates of Air Arabia, can also be found in Table 4.

Table 4. Cargo Rates & Flight Frequency (UAE)

	<u>United Arab Emirates</u>	<u>Flight Frequency</u>
Fly Dubai	<ul style="list-style-type: none"> Up to 45 kg – 165 USD FIXED 45-99 kg – 2.5 USD/kg + 21 USD (airway bill) 100-249 kg – 2 USD/kg + 21 USD (airway bill) 250 and more – 1.6 USD/kg + 21 USD (airway bill) 	1 flight per day
Air Arabia	<ul style="list-style-type: none"> Up to 45 kg – 250 USD + 25 USD (airway bill charge) 45-99 kg – 3 USD/kg + 25 USD (airway bill charge) 100-250 kg – 2.1 USD/kg + 25 USD (airway bill charge) 250 and more – 1.7 USD/kg + \$25 (airway bill charge) 	3 flights per week (1 flight on Sunday-disregarded)

For the purpose of comparison, it should be noted that:

- In terms of pricing “Fly Dubai” has slightly cheaper rates than “Air Arabia”.
- “Fly Dubai” offers 1 flight for every day of the week, in contrast to “Air Arabia’s” 2 flights per week.
- “Air Arabia” flies to the city of Sharzha, which slightly increases the duration of the transportation.

Therefore, “Fly Dubai” should be chosen for future cooperation.

➤ **Transportation to Russia**

For the purpose entering the Russian market, the three biggest cities of Russia have been targeted – Moscow, Saint Petersburg and Novosibirsk. In order to choose a potential carrier, 4 airlines (“Aeroflot”, “Siberia Airlines”, “Ural Airlines” and “UTAir”) with the most frequent schedule of flights have been identified. More specifically, among these four companies, “Aeroflot” and “Siberia Airlines” have the most number of flights per week. The terms of their service provision are the following:

“Aeroflot” – All cargo operations of “Aeroflot” is conducted by their partner-company in Armenia “Fresh Fruits” LTD. This company is a freight forwarder and offers a full service of logistics and takes care of the entire supply chain – from obtaining Phytosanitary Certificate in Armenia to finishing the customs procedure in Moscow. The only responsibility of the exporter company is to bring the goods to their cargo terminal. “Fresh Fruits” LTD charges a fixed 80 rubles per kg and that includes all costs.

“Siberia Airlines” – This airline offers exposure to the cities of Moscow and Novosibirsk. They have 3 flights per day from Yerevan to Moscow. They also have 2 flights per week from Yerevan to Novosibirsk, the rates of which are presented in Table 5.

“Siberia” doesn’t have a direct flight from Yerevan to Saint Petersburg. However, in order to create the opportunity for the transportation of perishable goods, they collaborate with “Ural Airlines”.

“Ural Airlines” has 3 flights per week from Yerevan to Saint Petersburg. The rates are presented in the below table.

Table 5. Cargo Rates and Flight Frequency (Russia)

	<u>Russian Federation</u>	<u>Flight Frequency</u>
<i>Siberia Airlines</i>	Yerevan-Moscow <ul style="list-style-type: none"> • Up to 80kg – 115 USD FIXED • 80-500kg – 0.8 USD/kg + 15 USD (airway bill) • 500kg and more – 0.75 USD/kg + 15 USD (airway bill) 	Yerevan-Moscow 3 flights per day
	Yerevan-Novosibirsk <ul style="list-style-type: none"> • Up to 500kg – 1.6 USD/kg + 15 USD (airway bill) • 500kg and more – 1.45 USD/kg + 15 USD (airway bill) 	Yerevan-Novosibirsk 2 flights per week
<i>Ural Airlines</i>	<ul style="list-style-type: none"> • 1kg - 1.25 USD + 15 USD (airway bill) 	Yerevan –St. Petersburg 3 flights per week
<i>Aeroflot</i>	<ul style="list-style-type: none"> • Fixed 80 rubles per kg and that includes all costs 	Yerevan-Moscow 8 flights per day

The contact information on all cargo agents of the airlines is presented in Appendix 4.

4.4 Requirements for Entry

➤ Requirements – United Arab Emirates

With a thorough analysis of the respective governmental web sources the following information should be considered when exporting goods to the United Arab Emirates market.

Since 1998 the United Arab Emirates, on all imported products there is an applied fee of commercial invoice legalization which is equivalent to the consignment value's 1%. This fee must be paid upon arrival, otherwise the products will not pass the customs authorities. More, specifically, for shipments to UAE through the air, the point of customs clearance is the first airport of arrival. Once the goods are released by the customs, then they can reach their ultimate destination.

In a typical chain of air-transportation, the following parties are involved:



In the transportation process, the exporter's key responsibilities include:

- ✓ To comply with the laws and regulations of the country to which the cargo is carried. These regulations include the respective requirements for packaging, labeling and carriage conditions of cargo.
- ✓ To deliver all necessary documents supporting the fact of complying with such laws and regulations.
- ✓ To assure the prudence and exactness of the particulars and statements with the numbers shown in the Air Waybill.
- ✓ To deliver the products in “ready for carriage” state

The above statement “ready for carriage” can have different meaning and implication, which depends on the specific requirements regarding the origin, transit and/or destination countries and specific carrier requirements. But, in the most general case it implies the following:

- Complete package suitable for air transportation
- Correctly labeled according to the mandatory requirements
- Full documentation (Air Waybill, etc.)

The documents necessary for importing to UAE are presented in the below Figure 1. In addition, the relevant descriptions of these documents are presented in Appendices.

Figure 1. List of required documents (UAE)



Labeling Requirements

Until the beginning of 21st century the Emirates have accepted food products with only English labels. However, now Dubai Municipality's Food Department demands bi-lingual labels. All food products must have Arabic stickers and labels and must provide, at least, the following:

- ✓ Description of Product;
- ✓ Ingredients;
- ✓ Country of origin;
- ✓ Weight (net)

Although there are some products, which are imported for institutional use and these products can sometimes be exempt from the Arabic labeling requirement. But, in the general case, labeling requirements are put in place to eventually ensure greater clarity for consumers. It is advised for exporting companies to work closely with their importers, so that they can be confident in their products labeling compliance with the demands of retailers.

By further going into the question of labeling, it should be mentioned that the regulations of labeling are applied to all types of products that are shipped in bulk containers. Bulk cartons filled with vegetables and fresh fruits must have most label information, although it is not necessary for them to show production/expiry dates. However, the dating of production is still a key difference in comparison to the widely-used practice of the western world. A label of food product should have the following:

- Name of Product name in an illustrious position;
- Used Ingredients (descending order by proportion);
- Additives with their "E" number

The United Arab Emirates have one of the most modern and well innovated air facilities of the world. In the general case, the shipments of food are off loaded, inspected by health officials and can be out of the customs zone just within a few hours after arrival. Particularly, since Dubai is the established primary point of entry for food products, it should be mentioned that its airports are very efficient.

All shipments of food products are subject to a visual inspection, which is conducted to make sure that labeling and shelf-life regulations are kept. Randomly selected shipments can be chosen for laboratory analysis, although this is only when the visual inspection has any susceptible implications. From time to time, some products are sampled, and this is according to the sampling policy manual. This manual clearly indicates the frequency of sampling depending on the product's country of origin, type and brand. All food products which are new to the market are subject to laboratory analysis and once cleared, these are also randomly sampled.

Food products that are found to be unfit for consumption and/or are not complying with the requirements of the labeling, will be rejected. In this case, the products can be either destroyed or re-exported to the originating country within a month. This is done with the respective discretion of the importers. For the case of just issues with labeling requirements, the products can also be re-exported to a third country. Furtherly, if the product packaging has just a minor infraction in its labeling, there might be a case, when the shipment is allowed to enter only just that one time for a very limited amount of sale. Despite the limited tolerance for small infractions, however there are severe punishments for major label misinformation, especially if the issues have been discovered after the importing process is complete. Usually, these products are fully banned from import for several months and also the importer company is reported in the press.

➤ **Requirements – Russia**

The analysis of the relevant governmental sources provides the following information in regards to the documentations necessary for importing goods to Russia.

All companies which export food products to Russia, should be first of all concerned with the customs regulations and tariffs. All goods entering Russia have to be declared by the time of import with the accordingly selected customs regime (e.g. import for internal consumption, temporary import, etc.) As a generally accepted practice, the goods are declared by a customs broker or a Russian importer. As soon as goods pass the Russian border, the basic documentation on the goods is submitted by the carrier to the border authorities. After, the internal transit of the goods goes on with customs control to the customs terminal at the final destination where they are cleared through customs. The correct preparation of the necessary documents requires experience. The main documents are presented in Figure 2, and their respective descriptions are presented in the Appendices.

Figure 2. List of Required Documents (Russia)



As to the customs procedures, in case of “Armberry”, it would be best for a customs broker to carry out the customs formalities on its behalf. The best regime for inward clearance would be the immediate payment of duties and taxes. Due to Armenia’s recent joining of the Customs Union with the likes of Belarus, Kazakhstan and Russia, the customs procedure has been made very efficient. The minimum levels from which tariffs are required can vary. All shipments which’s CIF value is below RUB 5,000 can enter without any duty or tax. The average tariff is about 7.8%. However, the category of foodstuffs and agricultural products have a comparatively higher customs tariff in the range of 15-20%.

5. Conclusion

As a summary to the above written, many important conclusions should be reached. First and foremost, Armberry should definitely take the opportunity of exporting its products both to Russia and United Arab Emirates. It is evident now, that the berry market in both countries is and will be in constant demand for imports. Moreover, the approximate calculations of profit margins (114% & 208%) are more than attractive.

In addition, considering the fact that berry production is labor-intensive, and in Armenia labor is cheaper than in the countries which are the current major exporters to the target markets, it is safe to say that Armberry will not bear pressure in terms of product pricing.

A noteworthy advantageous factor is Armenia’s cooperative economic relations with both United Arab Emirates and Russia. This also infers that for an Armenian company like Armberry there should not be any irregular administrative or legal obstacles.

As to a more specific direction in its product development, Armberry should consider the fact that the price of organic berries is on average twice the price of non-organic berries. Hence, Armberry has the opportunity of obtaining huge profits, given that it passes all necessary regulations for positioning its products as “Organic”.

The seasonality of the products’ pricing in the target markets should also be considered, when deciding the price for Armberry’s products. As it is written above, the movements in price of the target markets is simultaneous with the harvesting period of Armberry.

As to the optimal supply chain, it is inevitable for Armberry to incorporate the help of an intermediary company (trader/logistics center), in order to penetrate the Emirati market. For the Russian market, both options of with and without the intermediary are viable. However, for the purpose of saving profits, Armberry should give a preference to avoiding the “middleman”.

The optimal supplying conditions have also been implied by the paper. Armberry should apply the process of delicately handpicking the berries and packaging in hinged plastic boxes, which allow the products to breath. Respiration in packaging is critical for eliminating the risk of quick perishing. This issue should be addressed with the use of the instant cooling method, it can minimize the risk of perishing its products.

As a result of the research it can also be concluded that for transportation purposes to Emirates, Armberry should cooperate with “Fly Dubai” as it’s cheaper and has a better flight frequency. For the case of transportation to Russia, Armberry should cooperate with all of the airlines, as none of them single-handedly can provide exposure to all major cities of Russia.

Finally, a supplier of berries to the target countries not only has to take care of the high-quality of its products, but it also has to maintain the consistency of its supply. With its potential capacity of about a dozen hectares, Armberry will surely be able to provide the demanded quantity.

6. Appendices

Appendix 1. Descriptions of required documents (UAE)

Phytosanitary Certificate: Certifies that the described products have been inspected and/or tested according to the accordant methods and are free from quarantine pests, and conform to phytosanitary regulations.

Certificate of Origin: Generally, this is only required where the import value exceeds \$1,000.

Commercial Invoice: Usually this document is required at one original and two copies, however it can vary depending on the carrier and freight forwarders.

Packing List: It is critical for the packing list to have a number and weight that exactly matches the numbers as shown in the Air Waybill with the commercial invoice number. An eight-digit harmonized system code with the country of origin and the price, should be shown in all items of the packing list. This code is the international standardized way of classifying traded products. In the case when the shipment has multi-country products, the names of all countries must be written separately against each of the harmonized system codes.

Original Air Waybill: There is a 5% customs duty on the cost, insurance and freight of products, which means that the exporting company is responsible for the costs and risks, up until the goods have arrived to the importing country. Then, the importer must pay all of the costs to take the goods from the airport to their facilities.

The Airway bill is a legal document prepared on behalf of the shipper and it is designed to accompany the products to their destination. The airway bill forms a non-negotiable contract between the shipper and airline for the carriage of cargo, and it shows the following essential details:

- Shipper’s, Consignee’s, Carrier’s name and address
- Location of departure and destination
- Nature of goods
- Quantity of packages and other details
- Weight, quantity, volume or dimensions of packages
- Special handling information
- Weight or volume charges, surcharges and accounting information
- Contract partners’ stamps and signatures

Appendix 2. Description of required documents (Russia)

- **Cargo customs declaration (CCD):** The CCD is a document which officially declares the goods to the customs. It shows basic information on the products (description, weight, number of units, etc.), the chosen customs regime, the importer, consignor and consignee, the class and customs value of the goods, their country of origin and the transportation of the goods.
- **Declaration of customs value:** This document confirms the value of the product. It also is the ground for calculating the payments to the customs authorities. Various methods of calculating the customs value are available and customs authorities have the right to request additional documents, based on the used method of calculation. The cost of transport is included in the customs value.
- **Transportation documents:** For different means of transportation, the required transportation documents vary. For the case of “Armberry”, this is the airway bill.
- **Commercial documents:** For the purpose of calculating the customs value, these commercial documents are critical (contract, commercial invoice, pro forma invoice, insurance certificate, etc.)
- **Certificate of origin:** this is necessary to allow benefiting from customs tariffs that could be preferential. Specialized institutions of the exporter’s country issue this certificate.
- **Sanitary Certificates:** This is required to benefit from the Customs Union which Armenia is already a part of.

Appendix 3. Contact information of logistics companies operating in Dubai

“Nasser al Raffae”	“Kibsons Internatinoal”	“Fresh Fruit” LLC	“FloralFruit”LLC
Head office Al Awir Central Market, P.O. Box 21802, Dubai, UAE Phone: +971-4-3201117 Fax: +971-4-3200177 Email: nrtc@emirates.net.ae Website: www.nrtcgroup.com	Tell: (971) 4 3202600 Email: customercare @kibsons.com Address: Shop No. 59, Building No.2, Al Aweer, Dubai, Website: www.kibsons.com	Mohammad Bin Zayed Road, Exit 52, Ras Al Khor, Dubai United Arab Emirates PO Box 294040 Tel: +971 4 302 0800 Fax: +971 4 326 8275 Website: www. freshfruitscompany.com	Tel: +971-43886990 Mob: +971 558781512, Cold store 1 & 2 Al Aweer, Dubai, UAE, PO Box: 294533 info@floralfruitllc.com Website: www.floralfruitllc.com

Appendix 4. Contact information of the respective cargo agents

“Fly Dubai” <u>Director:</u> Vachagan Sarkisyan <u>Address:</u> 8 Zakyan str., Yerevan <u>Phone:</u> 011 33 11 11 / 094 31 03 10 <u>Website:</u> www.flydubai.am <u>Email:</u> v.sarkisyan@flydubai.am	“Air Arabia” <u>Head of Cargo Department:</u> Siranush Torosyan <u>Address:</u> 4 Vardanants str., Yerevan <u>Phone:</u> 010 54 11 47 / 091 15 85 81 <u>Website:</u> www.armeniatravel.am <u>Email:</u> cargo@armeniatravel.am	“Siberia Airlines” <u>Cargo Manager:</u> Hrant Babayan <u>Address:</u> 1 Zakyan str., Yerevan <u>Phone:</u> 094 68 05 05 / 095 55 75 09 <u>Email:</u> export@aviagit.am	“Aeroflot” Mr. Armen phone:094 31 14 14
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7. EuroAsian Economic Union: <http://www.tsouz.ru/Pages/Default.aspx>
8. Federal Custom Service of Russian Federation: http://eng.customs.ru/index.php?option=com_content&view=article&id=71&Itemid=1848
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18. "Super mart" retail chain - <http://supermart.ae/120-fruits>
19. "Lulu" retail chain- <http://www.luluwebstore.com>