

DISTRIBUTION CHANNEL ASSESSMENT: A CASE STUDY IN EXPORTING MALAYSIAN JACKFRUIT TO UNITED ARAB EMIRATES (UAE) BY AIR SHIPMENT

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ABSTRACT

The rising domestic and expatriate population, changing in taste and preference, and growing disposable income are the major factors driving the Gulf Cooperation Council (GCC) to be one of the fastest-growing economy in the world. The population is forecast to increase by one-third to 53 million people in 2020, point to continued strong market demand on imported food staples, as well as fruits and vegetables. Saudi Arabia, the United Arab Emirates (UAE), Kuwait and Egypt are the largest markets for fresh produce imports which Saudi Arabia and the UAE account for 80% of total market share in GCC. Tropical fruits have been exported to UAE from various countries including South Africa, Latin America and the Asia Pacific region, including Malaysia. All types of fruits, vegetables, cut flower and foliage are accessible to export to the Middle East countries with approved Phytosanitary Certificate endorsement. Mann-Kendal trend analysis indicate that jackfruits is the most significant fruit in UAE market presently, showing the increasing demand and preference. Malaysia exporting full-ripe jackfruit that popular with its sweet taste and smell. However, the full-ripe jackfruit has shorter shelf life, only five to six days. Air logistic is appropriate to use in exporting jackfruit to UAE market. Thus, this study was conducted to explore the supply chain, distribution and cost structure in exporting Malaysian jackfruit. Finding of this research indicated that the logistic aspect cost was the highest cost spend in exporting jackfruit to UAE by air. In addition, study also revealed that reasonable price, quality (color, sweetness and freshness) and services with importers and buyers will create better market opportunity for importing tropical fruits.

Keywords: Malaysian jackfruit, United Arab Emirates (UAE), air, logistics, freight charge

INTRODUCTION

Malaysia has tied businesses and trade relationship with the Middle East or Arab countries since last twenty years and were growing yearly. However, the trade and business relationship were relatively small compared to their 'traditional' trading partners (Asmak & Mohd Fauzi, 2009). With the exception of oil and gas commodity, Middle East particularly the Gulf Cooperation Council (GCC) countries have evolved significantly to be the fastest-growing region in the world.

The GCC countries comprise by the six member nations including Kuwait, Oman, Bahrain, Qatar, Saudi Arabia and the United Arab Emirates, also known as countries along the Persian Gulf except Iraq. It was established through the signing of the Charter of the Gulf Cooperation Council in 1981 with its main purpose to strengthen political, economic and cultural views, which are based on the beliefs of Islam among the members. In 2011, an initiative of 'Gulf Union' formed, meant to counterbalance the influence of Iran throughout the region and reform the dependencies on oil commodity (World Population Review, 2019).

The agricultural trade has played an important role in strengthening food security and safety to consumer across the globe. Being a neutral, modern and prominent advancing Muslim state, Malaysia has been contributing vigorously in the advancement of its trade by encouraging collaborations with numerous GCC countries (Irwan Shah & Muhammad, 2018). In January 2011, a framework agreement on economic, commercial, and technical cooperation between Malaysia and the GCC was sealed in Abu Dhabi (Tajul, et al, 2014 ; Abdurabb, 2011). Malaysia also involved in trade agreement with Organization of Islamic Conference (OIC) countries which comprises GCC since in the 1990s. This agreement is expected to benefit both partners in order to spur the investment but also to produce growth in the trade through the removal or reduction of customs barriers, the encouragement of contact between, and the establishment of economic, trade, and investment partnership (Tajul, et al, 2014 ; Abdurabb, 2011).

The Malaysian government introduced the National Agrofood Policy (NAP4) 2011-2020 in 2010, as a guidance document for the implementation programs and projects for the development of the agricultural sector in Malaysia (Rozhan,

2019). One of the key focuses is to increase export value of Malaysian agriculture produce including fruits (Chubashini et al, 2015). Middle East market particularly to the GCC countries are one of main target export market of Malaysian tropical fruits in the NAP4 strategic plan. In 2017, Middle East market contributed 4.02% (\$ 8,696 million) from the total Malaysia's agriculture export to the world (\$ 216,428 million). A part of that 0.12% or \$10,551million is from edible fruit and nuts; peel of citrus or melons. All types of fruits, vegetables, cut flower and foliage are accessible to export to the Middle East countries with approved Phytosanitary Certificate endorsement. No special treatments required but must be free from any plant pest and disease.

Dubai, a metropolis and popular city of UAE renown as the transshipment hub or gateway for re-export activity to other Middle East countries and Africa region. The UAE is home to over 200 nationalities, composed of 20% native residents, with the remaining 80% immigrants from India (accounting for 51%) (World Population Review, 2019). The UAE will be the second fastest growing food market at compound annual growth rate of 4.9% by 2019 after Qatar's, 5.5% on the back growth in the younger population (International Trade Centre [ITC], 2015). The changes in preference and rising health consciousness among the younger generation leading to higher consumption of nutritional foods as well as tropical fruits. South Africa, Latin America and the Asia Pacific region, including Malaysia are among the main exporters of tropical fruits to Middle East countries. The UAE leading exports destination of Malaysian tropical fruits with 44.3% market share, followed by Egypt (11.3%), Yemen (8.9%) and others 35.5%. Pineapple, watermelon, jackfruit, rambutan, star fruit and papaya were the top fruits exported to UAE. Thus, to keep this relationship closely, a case study has been carried out to understand the supply chain and its distribution cost of exporting Malaysian jackfruit to Dubai market. By reason of short shelf life and more reliable in maintaining quality after harvesting, air logistic model is used in this study. The information gathered from this study is useful for Malaysian grower and exporter to understand foreign market distribution channel and industries structure in the UAE mainly using air freight logistic. The objectives of this study are:

- i) To identify the export potential of Malaysian tropical fruits to UAE market
- ii) To explore the distribution chain of exporting Malaysian tropical fruits to UAE market
- iii) To evaluate cost and price structure along the distribution channel of exporting Malaysian tropical fruits to UAE market by air logistics

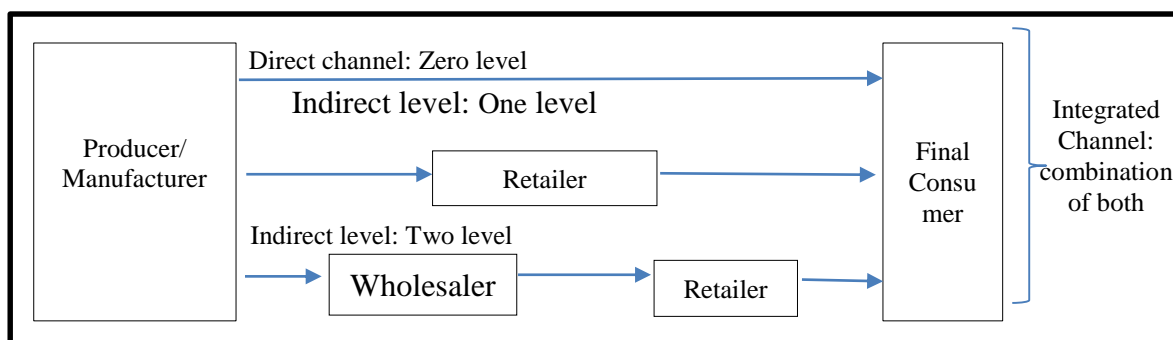
LITERATURE REVIEW

Marketing Distribution Channel

Zdenko et al., (2011) (as cited in Wirtschaftsleyikon24.net, 2011) interpreted distribution as all activities that enable the transfer of material and/or economic power over tangible and/or intangible goods from one economic subject to another. It is a chain of businesses or intermediaries through which a good or services passes until it reaches the final buyer or end consumer (Investopedia, 2019). In addition, the distribution or marketing channels also defined as a set of interdependent organizations involved in the process of making a product or services available for final consumption (Siohong & Mohd Fauzi, 2010; Kotler et al., 2009; Stern and El Ansary, 1995). Zdenko et al., (2011) and Domschke & Schield, (1994) also determine that distribution channel includes such a coordinated preparation of manufactured goods according to their type and volume, space and time to the final users. It should be efficiently satisfied by the market accordingly. In other words, a distribution channel is a group of depended on each other organizations units, which are taking in process of flow of product or services from producers to buyer (Szopa & Pekala, 2012). The group can include producers, wholesalers, retailers, distributors, agents and even the internet. Zdenko et al. (2011) & Ostrow (2009) relate the distribution channel as a route along group (travel from producers/manufacturer through marketing intermediaries (such as wholesaler, distributors and retailers) to the final user.

Distribution channels can be short or long, regardless to the number of intermediaries working to deliver a product or service to end consumer. Nevertheless, channels are fragmented into direct and indirect channels. In direct channels, producers/manufacturers sell their goods directly to individual consumers, where it is included for a trading company as well. An indirect marketing channel can be both short and long. Only one trading company is included in the short channel (usually, it is a retail company). While in the long channel, two or more intermediaries such as wholesale and retail companies are involved (Zdenko et al., 2011). Tih et al, (2008) also support that in consumer goods channel, typically have two level, leading from producers to wholesalers and retailers. The producer contacts the buyers through their own employees, commercial services or media, without intermediaries (Szopa & Pekala, 2012). In some conditions, integrated channels or multiple channel of distribution may exist in the chain – a combination of short and long. More intermediaries involved in the distribution channel will hike up the price for a good. Conversely, a direct or short channel may mean lower costs for consumers because they are buying directly from the manufacturer (Investopedia, 2019). In order to succeed in differences of distribution system, channel members are encouraged working together which produce a cohesive value in delivery system (Tih et al, 2008; Grossman, 2004; Kotler et al, 2009). The following diagram (Figure 1) illustrated the direct and indirect channel of distribution in market.

Figure 1 : Illustrative of direct, indirect and integrated distribution in market



In the distribution channel, the most important factor is a chance for a greater market penetration, acquisition of new markets and reduction of the distribution costs (Szopa & Pekala, 2012). Distribution channels are depending on cost, sales, volume, expected profit and the level of economic development (Andelkovic et al., 2017). Distribution channels are very important because they provide the following (Andelkovic et al. 2017; Andrejic & Kilibarda, 2015):

- Products availability at the market,
- Cooperation and collaboration into network
- Concentration of companies according to core activities,
- Appropriate level of service,
- Minimum of logistic and total costs,
- Exchanging accurate and reliable information in direct and reverse flows,
- Transactional efficiency as a result of reduced number of connections and activities

Distribution channel could be used as a source of strategic advantages for all networked partners (Andelkovic et al., 2017). It is a strategy to develop deep, enduring relationships with all channel members that effect the success of the firms' marketing activities (Siohong & Mohd Fauzi, 2010). However, conflicts in the channel possibly happen and effect in losing direct control over the channel. Some cases are like not fulfilling responsibilities by intermediaries and extension in the period of payment for products. Frazier (1999) indicate that, conflicts between partners in distribution channel must be ignored due to important effective functioning and impact for long run relationships and performances (Andelkovic et al., 2017). Therefore, Kulp et al., (2003) highlighted the need for better coordination of members in order to enhance better information flow and generate the distribution channel. Other ways, limitations of measuring distribution channels efficiency could be applied like: selection of appropriate indicators, level of measuring efficiency, efficiency decomposition, conflicting goals, shared resources etc (Andrejic & Kilibarda, 2016).

International Distribution Channel

International distribution channels are more complex due to its widely crossing of different social, cultural, economic and political patterns (Prescott, 2006), however it is well developed and connected which involve longer distribution channel, starting from local producers to exporters, foreign importers, distributors/wholesalers, retailers and finally end consumers (Siohong & Mohd Fauzi, 2010). Szopa & Pekala (2012) (as cited in Krawzyk , 2001) details macroeconomic conditions including the economic situation, the purchasing power and the ability to exchange currency, demography and culture of the population, the population density and the maximum size of the market were the choices of distribution channels for consideration. Furthermore, the international produce markets have become more hostile with emerging low-cost competitors (Mohd Fauzi & Siohong, 2010). International channels of distribution can be deceptive due to the extent of country-to-country differences; however, cross-national channel partnerships are on the rise, and divergent cultures may engender heightened conflict, which has a deleterious effect on channel performance (Rajiv et al, 2011). Thus, improving product quality and marketing mix as well as market penetration strategies becomes a necessity (Reid and Buisson, 2001).

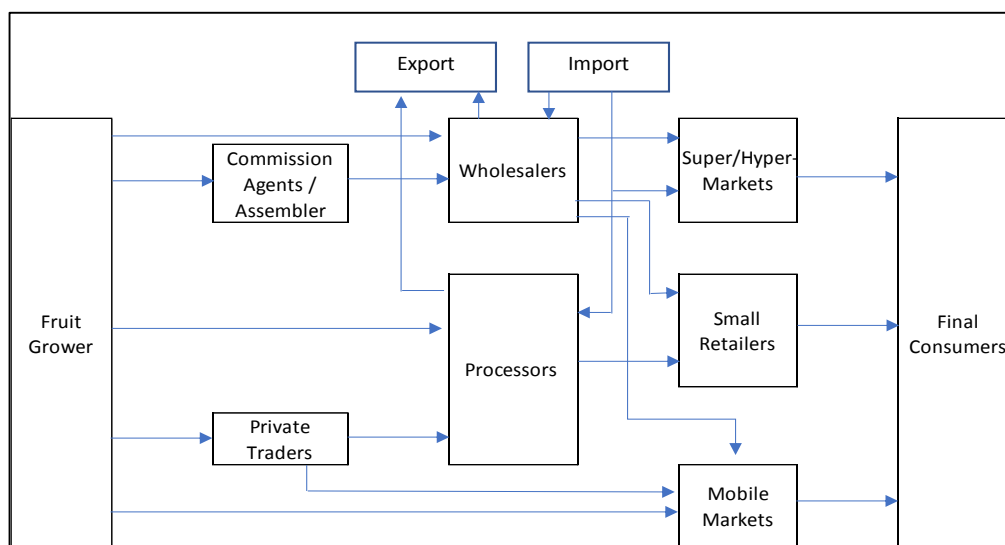
International channel of distribution change over time (Prescott, 2006), when decided to enter or expand into a foreign mark, a company has to determine the overall structural of its operations in that nation (Osland et al, 2001). Moreover, the importance of choosing the right method of entry into foreign markets is one of the most critical decisions because the entry decision will set forth the objectives, goals, resources, and policies that will guide the organization's international operations over a future period long enough to achieve sustainable growth (Jorge, 2012). In the context of export, the trade facilitators which are link to the determination of trade cost and improving efficiency were the focused in the chain of international relations (Marti et al, 2015). Generally, two types of freight used in trade shipment either by air or ocean. The difference between air and ocean freight are seemingly apparent. Air freight is best used, faster, safer and more reliable than ocean freight, but it's also more expensive – a \$ 195 ocean shipment can cost \$1,000 by air (413% or 5.12 times than ocean price). Ocean freight has much cheaper in cost, more capacity and value, however slow in delivering, customs issues and port holdups (Freightos, 2016).

Fresh Fruits Distribution Channel for Malaysia and Export Market

The management and co-ordination of the fresh produce supply chain have become increasingly important as companies need to minimize distribution and inventory costs while maximizing market opportunities which result fundamental changes in consumer preference and taste (Norsida et al, 2009). Fresh fruits and vegetables are extremely perishable and have a relatively short shelf life (Nath et al, 2007). Fruits and vegetables are living biological systems and they deteriorate after harvest. The rate of deterioration varies greatly between individual produce depending on their overall rate of metabolism, Nath et al. (as cited in Kader, et al. 1985). It becomes more suffer for the business if the distribution channels are improperly managed from farm to the market mainly for small and marginal company. Poor control of storage conditions, storage for too long and inappropriate storage conditions for a particular commodity will also result in poor quality product (Kalman, 1985). Therefore, it is important to maintaining high level of care of those produce (Jones and Moody, 1993).

Domestic trade is an important source of livelihood for players in the local distribution's members. The major actors involved in trade are producers, traders, middleman, transporters and local authorities (Research Solutions Africa, 2015). In the general production and marketing system, cost of product, prices and distribution will may impact from the performance of the traditional wholesale market. Malaysian fruits marketing channel is depicted in Figure 2 by the study from Fatimah et al, (2004). As shown in the figure, at the farm level, farmers can either sell direct to the wholesaler (mostly in bulk quantity), agents and assemblers, private trades or directly to the consumer in the "mobile market". Two types of mobile market practically involved by farmers which are "Farmers Market" administered by Federal Agricultural Marketing Authority (FAMA) and "Moving Market" which managed by the town municipalities. The wholesaler sells the produce to the institution (processor) or retailers (supermarket/hypermarket, small retailers or mobile market) who then sell it to the final consumers. The wholesaler also receive supply through import. At retail part, three sectors are involved; supermarket/hypermarkets, the small retailers and 'mobile' markets. Study also determine that, for fruits and vegetables, generally 80% sold to wet retail market and 20% distributed through dry market retail market (hyper/supermarket). There are also farmers who directly involved into contract marketing with processor who sell processes products (juice and canned fruits) to local wholesalers, hypermarkets, retailers and importers.

Figure 2 : Marketing channel of fruits in Malaysia.



Source : Fatimah et al. 2004

In the regional or international market, large-scale importers, wholesalers, and exporters are the active channel members in the chain. The large-scale importers directly import fruits and vegetables from overseas. They do not deal with retailers, but have strong relationship with wholesalers and being also as exporter (re-export activity) to other countries. Practically, large-scale exporters operated their own warehouses, refrigerated storage and truck fleets by their own. In certain developed countries, there are excellent public storage facilities for marginal-scale companies which do not own storage facilities. Though, marginal-scale importers and wholesaler perform both functions; import and supply to other retailers and they may also be exporters. Many wholesalers purchase their products from importers and they are usually located in the central markets or in special food industrial areas. Retailers are individual retail outlets or mini-market operated by private owner to sell for final consumer (Tih et al, 2008).

Demand and Supply for Fresh Tropical Fruits in the UAE

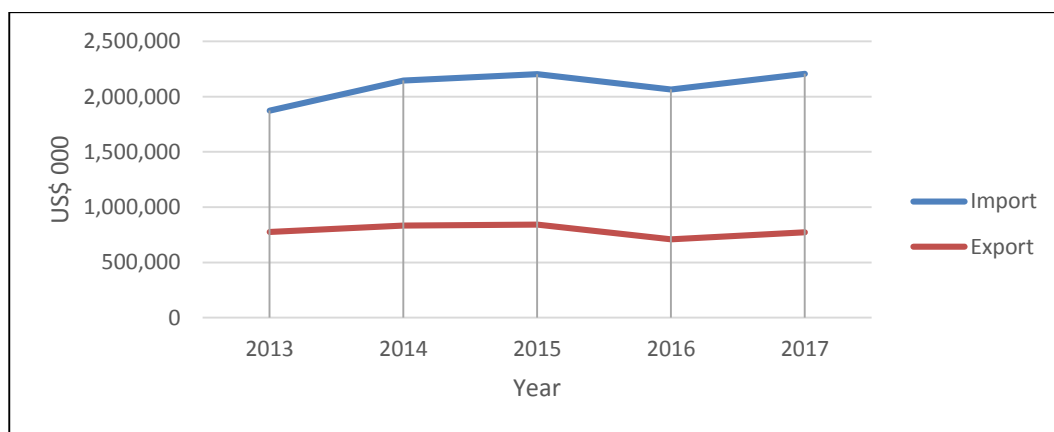
The six members of Gulf Cooperation Council (GCC) are widely known as the top countries of oil reserves in the world, ITC (2015) reported that by 2020, the GCC is predicted to have a total population of 53 million, increase by one-third, point to continued strong market demand on imported food staples (90%), as well as fruits and vegetables. Saudi Arabia, the United Arab Emirates (UAE), Kuwait and Egypt are the largest markets for fresh produce imports which Saudi Arabia and the UAE account for 80% of total market share in GCC. Food annual sectors of the GCC region hovers US\$9 billion range and the

UAE share is highest share, about 60%. This is due to the increasing of large expatriate community and local population which noticeable impact to the demand for quality food products (Pakistan Trade Development Authority, 2007). Meat is the top category (7.8%) consumed by the Gulf nation, followed by fruits (3.5%) and cereals (2.5%); while vegetable and milk consumption remain static. ITC (2015) expected that food consumption to grow 51.9 million tones (2-014-2019) at a 3.5% in the GCC market, with the backed by encouraging macroeconomic drivers. The rising domestic and expatriate population, changing in taste and preference, and growing disposable income are the major factors driving the GCC market (PMA Research, 2017).

Dubai and Abu Dhabi are the popular of housing most of its population, businesses, and retail stores and were the major food consuming cities of the UAE. Demand for processed as well as western foods in the UAE also increased concurrently. Dubai has emerged as the third-largest re-exporter in the world (Atlantic Canada Opportunities Agency, 2016) and a key food manufacturing destination due to its ability to produce high quality, competitive, and value-added products, accompanied by a strong logistics network and strategic location. Emirate Airline as a national aircraft also plays role in the distribution channels to provide transport for fresh fruits like mango, citrus, and perishable items like vegetables for their early and quick disposal to the destination on discount rates from other countries (ITC, 2015).

Total imports of fresh fruits and nuts to UAE was valued at US\$ 10.5 billion from 2013-2017 (Figure 3). The import trend shows increasing value with an average growth 4.4% annually. The leading exporters to UAE were the United States of America with 20.72%, followed by the India (13.73%), South Africa (11.6%), and Iran (5.38%). The main fruits imported to UAE were nuts with 22.13%, followed by citrus fruits (14.49%), dates and few tropical fruits like pineapple, guavas, mangoes and mangosteen (12.90%) and apples, pears and quinces (12.22%).

Figure 3 : UAE : value of fruits imported (US\$), 2013 -2017



Source : Trademap, 2018

METHODOLOGY

This paper has the objective of exploring the supply chain and its distribution cost of exporting Malaysian jackfruit to Dubai market purposely by air freight shipment. A qualitative assessment of case study is used for expected results. Primary and secondary resources were used in the study. At the beginning, a focus group discussion was held among Malaysian fruits exporter and related government agencies to identify export issues and challengers and distribution chains mainly for Dubai's export chain. Findings gathered from the focus group discussion was also used as a base of structured questionnaire for industry interview. A purposive sampling was applied to select the industry players among importers, distributors, procurement managers and retailers to determine the distribution structure and its cost price of jackfruit in the Dubai market. Other than that, in-store observation had various category of grocery outlets (like retail stores; supermarket and hypermarket including Lulu Hypermarkets, Carrefour, Spinneys, Waitrose and Union Coop) was also used to generate more information of fruits tropical distribution network in the Dubai market.

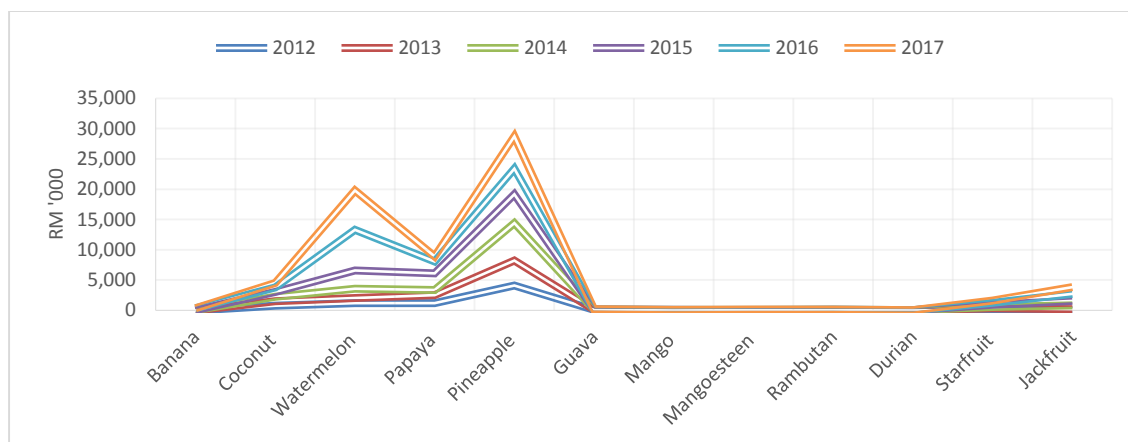
Secondary data of fruits trade statistics (import and export) from TradeMap online database (2012-2016) was also used in the study. A Man-Kendall test was applied to statistically asses significant monotonic trend in the Malaysian export fruits to UAE. Man-Kendall test had been formulated by Mann in 1945 as non-parametric test for trend detection and the test statistic distribution had been given by Kendall in 1975 for testing non-linear trend and turning point (Arun et al., 2012). It is preferred when various stations are tested in a single study (Hirsch et al., 1991). Findings of this test is used to identify the present significant Malaysian tropical fruits exporting to Dubai market.

RESULT AND DISCUSSION

Figure 4 shows the trend analysis of Malaysian tropical fruits export to UAE from 2012-2017. The average amount of Malaysian fruits export to UAE countries increased by 90% from RM7.5 million (2012) to RM14.3 million (2017). Malaysia exported banana, coconut (in desiccated form), watermelon, papaya, pineapple, guava, mango, mangosteen, rambutan, durian and jackfruit

to UAE. Pineapple is the major export to UAE (44% share) and it is increased significantly from RM 4.075 million in 2012 to RM 5.376 million in 2017, an increase of almost 32% over the last 5 years. While, watermelon accounted for about 30% of the total exports, which made it as the second highest contributor from 2012-2017. Jackfruit and starfruit also showing increasing demand in UAE market. In 2017, export increase respectively for jackfruits (1%) and starfruits (12%) from the previous year. There are demand for other fruits like mango, mangosteen, rambutan and durian but in small quantity. The increase in demand for Malaysian tropical fruits is partly due to increase in consumer awareness of tropical fruits, made possible by the increase in tourism the industry, better communication network and transportation (Fatima et al, 2004).

Figure 4 : Malaysia : value of fruits exported to UAE market (RM), 2012-2017



Source : Ministry of Agriculture (2017)

Table 1 shows the Man-Kendall analysis of Malaysian fruits in the UAE market for 2012-2016. Three types of fruit; watermelon, starfruit and jackfruit showed positive and significant increase in export volume and value at significant level $p \leq 0.01$ and $p \leq 0.05$ except for export value of starfruit. Watermelon and jackfruit are the potential fruits exporting to UAE. Watermelon export increased significantly 388.3 mt or RM 1.2 million sales per year, while jackfruit increased significantly 19.9 mt or RM 278,460 sales per year to UAE market. Although export of watermelon is higher than jackfruit for both volume and value, jackfruit indicates the furthest potential fruits due to calculation of per unit basis 1 mt (watermelon – RM 3,090; jackfruit – RM 13,993). The result is also aligned with the indication of ≤ 0.05 , where it is most significant that $p \leq 0.01$. In the other hand, dry coconut (desiccated coconut) and guava showed a significant decrease for both value and volume. It indicates that export market share of Malaysian coconut and guava were becoming smaller from 2012 to 2016 with decreasing value of 42.8 mt or RM 152,320 and 1.8 mt or RM 11,600 per year. Papaya and rambutan export shows increasing trend while pineapple and mangosteen details the decreasing trend with insignificantly impact.

Table 1 : Potential fruits exporting to UAE market using Man-Kendall, 2012-2016

Variable	Quantity (Mt)/ Year		Value (RM '000)/Year	
	Coefficient	P-Value	Coefficient	P-Value
Jackfruit	19.921	0.086*	278.462	0.027**
Starfruit	2.518	0.086*	47.67	0.221
Watermelon	388.204	0.086*	1,230.26	0.086*
Coconut	-42.813	0.086*	-152.32	0.086*
Guava	-1.855	0.086*	-11.59	0.086*
Papaya	8.565	0.807	201.93	0.462
Pineapple	-153.796	0.221	37.12	0.462
Mangosteen	-0.030	1.000	1.959	0.807
Rambutan	0.916	0.312	15.247	0.462

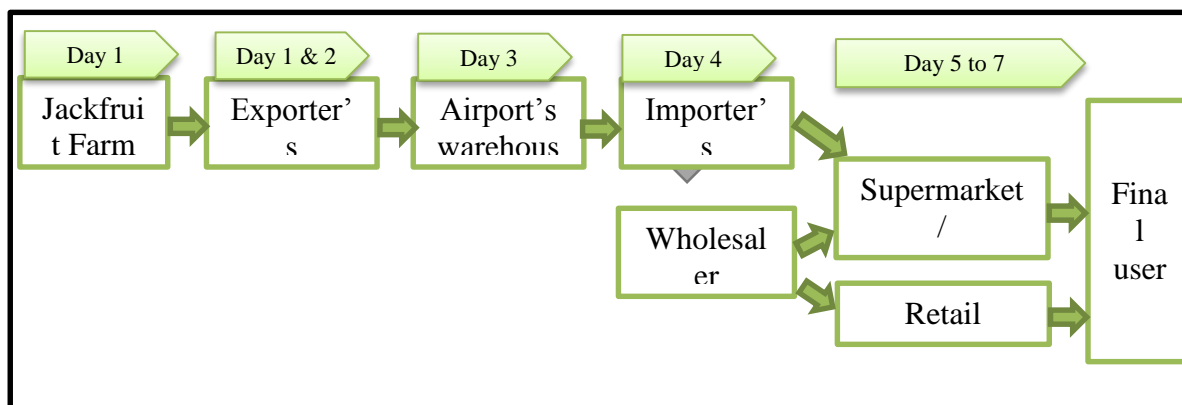
*significant value at $\alpha=0.01$; **significant value at $\alpha=0.05$

Distribution and export costing of jackfruit supply chain, from Malaysia to Dubai

Exporters and the trade partner played an important role in the international distribution channel. The actual transportation of the goods from factory/farm or warehouse to the intermediaries (distributors, agents, wholesalers) and finally end users or the retailer's shelf are contributed in the physical distribution. In most cases, extensive physical presence required such as warehousing, showroom, warranty and after-sales-service, though, sometimes using distributors can be most effective and efficient (Teoh, 2013). Freight agencies consulting is the best reference to arrange the best and most appropriate way for exporting the products. Internationale Weiterbildung und Entwicklung, (2002) determine that the cheapest in transportation cost may not always be the best. For example, fresh fruits which are highly perishable, even though road or sea transport may be cheaper, air transport is the most appropriate due to the nature of the product.

The details of distribution export channel of Malaysian jackfruit to Dubai as depicted in Figure 5. Jackfruits were acquired from farm in Lanchang, Pahang with 80% maturity index (full-ripe) and approximate weight 10 kg per fruit. Normally fruits will be harvested in the morning to avoid post-harvest losses particularly of hot weather. Fruits then, were cleaned and ready to transport to exporters' warehouse by the evening. Normal truck was used for this purpose. The next day, in the warehouse, fruits will be washed in tap water and drying before ready to export. Fruits were subjected to quality checkup before packed in the corrugated box. Fruits were stored in chiller at 10 °C for a while and exported by air freight in the evening at the same day. Non-stop flight from Kuala Lumpur, Malaysia to Dubai, UAE is around 7 hours. Fastest transit flight takes close 10 hours, while it could take as 35 hours based on the stopover destination and waiting duration. Freight charges are different between direct or indirect flight. Though, timing is also crucial to maintain the freshness of the fruits. Fruits were arrived at airport's warehouse in day three and expected to deliver to buyers' warehouse in the next day (day four). Full-ripe jackfruit has shorter shelf life, only five to six days, thus fruits need to be on the retailer's shelf life between day five and day seven.

Figure 5 : Jackfruit export distribution channel from Malaysia to Dubai by air freight



The cost structure of jackfruit supply chain to Dubai is depicted in Table 2. At the farm level, jackfruit's is sold around RM 3.5 – RM 4.50/kg (approximate per fruit = 10 kg). The price is fluctuate depending on the supply and input cost. It is estimated to incurred 35% including margin and cost for exporter at ex-factory price to RM 5.40/kg. Freight on Board (FOB) price consist of air forwarding haulage, airport charge and fees incurred in Malaysia around RM 1/kg and made the FOB price to RM 6.40/kg. Computations is based on orders using weight as basis, unlikely as conventional sea shipment by container using cubic meter. Freight and insurance are about 70% from the cost price and may vary depending on air craft selection (non-stop or transit). Freight chargers are the highest cost in the distribution channel and must be absorbed in the product price. The price goes up to RM 9.20/kg until Dubai port or also called as importer's Cost in Freight (CIF) price. Forwarding, airport charge, import duty and fees estimated at 12% charged around RM 0.80/kg has to pay at gate clearance. 20% margin was channeled to importer's or distributor's, while another 25% margin to wholesaler, price up from RM 12.00/kg to RM 15.00/kg. The remaining 30% went to retailers' margin and final prize is around RM 19.50/kg or AED 17.20/kg. The factor from ex-factory to retail price is 4.1 times. As assumption, for RM 1 increase in the Malaysian exporter's ex-factory price, the corresponding increase in the Dubai retail price is equivalent to RM 4.10. From market observation, jackfruit pulp from Thailand also sold in 200g per pack at price RM 10.70 or AED 9.50. Price at retail market; supermarket or hypermarket may also different due the in-store promotion and discount. Apart from physical store, consumer could enjoy online shopping from Carrefour and Spinneys which directly send to consumer's house.

It is believed that if using ocean freight, the selling price in import's country will be lower. The cost of ocean logistic 413% or 5.12 times lower than air freight as discovered by Freightos (2016). However, ocean logistic requires more volume and need structured harvesting protocol, in order to maintain quality and safety of the jackfruit while export duration.

Table 2 : Cost structure of exporting Malaysian jackfruit to Dubai market by air freight

Step	Details	Unit price AED	Unit price RM	Notes and detailed computations (Computations based on per kilogram)
1	Retailer's selling price to end customers	17.20/kg (whole fruit) or 9.50 (pulp in 200 g/pack)	19.50/kg (whole fruit) or 10.70 (pulp in 200 g/pack)	Retailer's margin (30%), RM 4.50 RM 15.00 + RM 4.50 = RM 19.50/kg
2	Wholesaler's selling price to retailer		RM 15.00/kg	Wholesaler's margin (25%), RM 3.00 RM 12.00 + RM 3.00 = RM 15.00/kg
3	Importer's/ Distributor's selling price		12.00/kg	Importer's/ Distributors' margin (20%), RM 2.00 RM 10.00 + RM 2.00 = RM 12.00/kg
4	Importers/ Distributor's		10.00/kg	Forwarding, airport charges,

	Delivered Duty Paid (DDP)			import duty (12%) from FOB incurred in Dubai, RM 0.80/kg. RM 9.20 + RM 0.80 = RM 10/kg
5	Importers' CIF price		9.20/kg	Freight and insurance (70%) from farm's price (RM 2.80) RM 6.40 + RM 2.80 = RM 9.20/kg
6	Exporter's FOB price		6.40/kg	Forwarding, airport chargers etc., incurred in Malaysia. RM1.00/kg. RM 5.40 + RM 1.00 = RM 6.40/kg
7	Exporter's ex-factory price with 35% margin		5.40/kg	Exporter's (35%) margin from farm's price (RM 1.40) RM 4.00 + RM 1.40 = RM 5.40/kg
8	Farm's price		4.00/kg	
	FACTOR			Ratio of retail price to-ex-factory price of exporter RM 22.50 / RM 5.40 = 4.1 Approx. 4.1 times

Currency exchange as at Oct 2018: 1AED = RM 1.127

Market and industry expectations

Based on the interviews conducted among importers and procurement managers, the key expectations were consistent price, supplies, quality and services. Competitive pricing among suppliers from other or same countries must be reasonable, if it not be lower it must be at the same as others. However, the price tends to be higher for a niche market which customers willing to pay above and create their loyalty to the product. A quality fruits with specialized packaging or branding may useful to survive in the niche market. Fruits are commonly sensitive to temperature and perishable. Quality maintenance and enhancement of postharvest technologies able to remain freshness and shelf life of fresh fruits. Most consumers expectation looked at fruits' freshness, sweetness and attractive colour when purchasing in the market. A consistent and continue supply all year round are main challenging for tropical fruits particularly for seasonal fruits. Jackfruit is not seasonal fruit, but sometimes the production decrease by infected of pest and disease. Thus, good agriculture practices must be always implemented by growers. For large-scale importers, consistent supply in high volume is high expectation to full fill. Therefore, before dealing with this group, Malaysian supplier or exporters must be ready with extensive supply from local growers. Services is an important factor in the initial export and ongoing success of product in foreign market. Even though for food and some consumers goods, require no service, resolved once distribution channels, quality criteria and return policies met, service performance is a determinant factor in ensuring a reasonable competitive position in the long run. All foreign market is sophisticated and each has its own expectations to their suppliers and vendors.

Strategies for improving policy decisions

In order to improve and strengthen business partnership between Malaysia and Middle Eastern Asian countries (MEACs) market as a whole, few strategies are suggested to be implemented. The strategies are to:

- 1) Revisit and pursue the draft agreement between Malaysia and MEACs

Trade agreement between Malaysia and individual MEACs is remain under negotiation. However, Tajul et. al. (2014) in his study revealed that from the analysis of regression, there is no threat of trade agreement for imports from Malaysia to MEACs. This will give pros and cons to the country; positive impact, will increasing exports and diversify in export destination, but the other hand, it also implies something very important that requires serious evaluation and planning. Therefore, the full review of the agreement should be design to give high bilateral trade between Malaysia and MEACs. This agreement is expected to benefit both partners in expanding business, investment while reducing interferences, particularly to reduce transportation cost, which the major challenge for increasing Malaysian export.

- 2) Continuing trade mission and awareness program with cooperation of government and industry player

Trade mission program used to educate the consumer's awareness and preference. It must continuous and actively organized by the government promotion agencies like Ministry of Agriculture and Agro-based Industry (MOA), Ministry of Tourism, Arts and Culture (MOTAC) and Ministry of International Trade and Industry. A collaborative work with industry players will rich the partnership and trade opportunity.

New type of fruits like dragon fruit, duku, langsat, salak (snake fruit) can be introduced to the potential consumers for existing or emerging market in MEACs.

- 3) Capturing niche market by creating loyalty of branding and packaging

Exporting fruits through air logistic is more expensive than sea shipment (70% cost from ex-farm price). But then, it assured the quality and freshness of the full-ripe jackfruits in terms of taste, smell and physical appearance. Thus, it can capture niche market or specialized segmentation, with higher retail price. In UAE market, particularly in Dubai, there

are group of people who willing to buy fruits at higher price as long as the product looked high quality and attractive. It is believed that the market is growing parallelly with high income community in Dubai. Thus, strategy of creating loyalty in branding and packaging should be considered by Malaysian supplier. In addition, online shopping approach of fresh produce was also being trending promptly. Malaysian suppliers are encouraged to take part in this new internet marketing.

CONCLUSION

Malaysia has been contributing vigorously in trade with Middle East Asian countries (MEACs) as well as the Gulf Cooperation Council Countries (GCC) since last 20 years. The Middle East market contributed 4.02% of the Malaysian total agriculture export to the world. In fruits category, UAE market was predominantly, contributing 44.3% followed by Egypt (11.3%), Yemen (8.9%) and others (35.5%). However, trade agreement of regional or individual between Malaysia and these countries has yet to be signed. Hence, with expectation of domestic and expatriate population increment 4.4% a year until 2020, subsequently will increase demand for food, changing in taste and preference, and growing of disposable income.

This study found that watermelon and jackfruit are the potential fruits exporting to UAE, positive and significant result in volume and quantity of export from 2012-2016 based on p-value indication ≤ 0.01 . Deep down analysis, jackfruit indicate the furthestmost potential due to significant difference of $p \leq 0.05$, good in price and demand. Therefore, this study is carried out to understand the supply chain and its distribution cost in general. Full-ripe jackfruit exporting by air freight is used as sample in order to maintain its freshness and quality, as it has short shelf life even though demand is high in Dubai market. As overall, it takes almost 5 days transporting jackfruit from farm to the retail store. A proper post-harvest handling procedure like harvesting in the morning (used to avoid from spoilage), washing and cleaning, good transportation system, cold storage setting, and appropriate packaging has been practiced accordingly. The cost structure has calculated to show the price and margin from farm until retail market. The factor of retail price is equivalent to 4.1 times from the ex-factory price. As assumption, for RM 1 increase in the Malaysian exporter's ex-factory price, the corresponding increase in the Dubai retail price is equivalent to RM 4.10. The cost of air logistic, is the highest cost involved in the distribution chain (70% up from farm's price). Oppositely, if using ocean freight, it is believed that the cost is much cheaper, but then there is no assured of high quality and freshness when arrived as it takes almost 10 days from Malaysia to Dubai port minus with 3 days of port clearance. Although, the price is high there are group of people who willing to buy fruits at higher price as long as the product looked high quality and attractive especially in Dubai where international expatriate population is dominant than Emiratis population.

The implication of this study that relevant to exporters and authorities; Ministry of Agriculture and Agro-based as well as to the Federal Agriculture Marketing Authority (FAMA) and Malaysian Agriculture Research and Development (MARDI), in order to providing more assistance and information to fruits exporter. By revealing the distribution channel and cost structure of exporting to Dubai it is hope that exporters would comprehend the chain in order to improve or start the new business. As a result, it will support their decision or planning in venturing export and business chain.

In international business, four key factors are the expectations from importers and industry. They are; competitive price, consistent supplies, high quality criteria fruits and services offered. Towards that, to improve and strengthen the business, few strategies are suggested in policy decisions by government as well as private sectors. Revisit and pursue the draft agreement between Malaysia and MEACs or GCC countries will be more benefiting in trade and business. It is not only to expand the business but it also usable to reduce interferes particularly in transportation cost. Furthermore, trade mission program and restructuring market segmentation to niche market with branding and packaging should be considered in the business. Online business is also new platform and opportunity for borderless technology.

The study is only focusing for air freight distribution, it is supposed to do concurrently with ocean freight situation. However, there are no shipment of jackfruit exporting by sea. Thus, no comparable case in terms of distribution channel and costing. This is the major limitation of the study which it is actually more meaningful if getting both information. Other than that, it is quite hard to get the information from importers in determining the retail contacts, where it assuming threats in the business. In future, continuous study with sea shipment or else perception and preference of consumers towards other tropical fruits could be done. It is expected to produce more information publicly. By the perception or preference study, new variety of fruits such as dragon fruit, duku, langsats or snake fruit could use as sample. It is hope that this will create new potential and segmentation market in Dubai and the Middle East one day.

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