

Working Paper Series

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*Improving smallholder farmer incomes through strategic market
development in mango supply chains in southern Vietnam*

Activity: **A1.7 Hong Kong Market Study:
Stage 1 Market Interviews & Observations**

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Summary

The aim of the Hong Kong Market Assessment Study is to analyse current segments, channels, seasonality of mango market in Hong Kong, and advantages and disadvantages regarding mango supply from Vietnam and Australia. By conducting online semi-structured interviews with major Hong Kong mango stakeholders; one Hong Kong mango wholesale market visit; and one mango retail observation study – including mass-market groceries, up-market groceries, and wet markets located in Hong Kong during Christmas Holiday 2020 – this report presents qualitative information and key insights about the Hong Kong mango market.

Results from this qualitative study revealed the following key insights:

- Hong Kong is an easy access market to sell mangoes from other countries;
- During the peak season mangoes from The Philippines dominate the market, while Australian mangoes are the most popular varieties in the wintertime;
- Vietnamese mangoes are not desired by customers and often not even traded by sellers despite affordable prices and reasonably quality;
- Australian mangoes are commonly accepted by Hong Kong consumers and enjoy a premium position within the Hong Kong market;
- Prices of mangoes in the Hong Kong retail market can be classified into several groups, among which the traditional-wet-market group sets the lowest prices and high-end supermarkets/Japanese department stores set the highest prices;
- Hong Kong retailers display their mangoes on shelves without packaging, in contrast with other premium fruits;
- Besides fresh mangoes, some supermarkets/department stores also sell cut-fruit mangoes;
- Although consumers usually like to purchase ready-to-eat mangoes, supermarkets prefer to keep green mangoes for a longer shelf-life;
- Over time, the position of Hong Kong as a re-export hub to mainland China is becoming less prominent;
- Vietnamese mangoes are mainly transported to Hong Kong via land through China and may be mixed with Chinese mangoes, therefore are often not identified by Hong Kong customers;
- Both Vietnamese and Australian mangoes could be better promoted within the market.

To better understand mango value chains and provide more detailed recommendations regarding the supply of mangoes from Vietnam and Australia, the research team should:

- Conduct more semi-structured interviews within the retail segments, namely: supermarkets, stalls at the traditional wet markets, and sellers at the indoor wet markets;
- Conduct another mango retail observation study between April and August, to obtain information during the peak-season; and
- A consumer study should be undertaken to assess their acceptance and preferences for Vietnamese mangoes compared with mangoes from other major origins such as The Philippines, Thailand, and Taiwan.

Introduction

The overarching aim of the Hong Kong Market Assessment Study is to analyse the current segments, channels, and seasonality of Hong Kong mango markets, and evaluate the advantages and disadvantages of mango supply from Vietnam and Australia, respectively to the Hong Kong market. The specific objectives of this study are to:

- Assess market conditions of the Hong Kong mango market;
- Analyse mango supply trends within the Hong Kong market over recent years;
- Investigate advantages, disadvantages, and opportunities for Vietnamese mangoes in the Hong Kong market;
- Investigate advantages, disadvantages, and opportunities for Australian mangoes in the Hong Kong market; and
- Provide a series of conclusions and recommendations to increase the share of Vietnamese and Australian mangoes within the Hong Kong market.

Method

This qualitative study encompasses semi-structured interviews with key stakeholders across the Hong Kong mango market. Due to COVID-19 travel restrictions, interviews were conducted online with three Hong Kong mango importers, and one interviewee with over 15 years of experience in the Hong Kong retail sector.

One wholesale market visit was conducted at the beginning of December 2020 to acquire mango trading information from a few wholesalers.

An additional mango retail observation survey was also conducted during the 2020 Christmas holiday period. This additional survey includes mass-market groceries, up-market groceries, and wet markets located at Hong Kong Island, Kowloon, and New Territories in Hong Kong.

Results and discussions

Overall mango market condition in Hong Kong

Both the Hong Kong retail market as a whole and the Hong Kong mango sector have experienced a number of changes in recent years. According to one interviewee with more than 15 years of experience in the retail sector, the Hong Kong retail market was previously split fairly evenly – 50% among the big supermarket chains, and 50% between wet markets and other retail channels. Currently, in addition to the two big supermarket chains (ParknShop and Wellcome), there are more specialty stores such as Japanese-style, thematic stores, and other different formats. Hong Kong retailers have also suffered from an increase in operating costs such as labour and rent.

Given Hong Kong is completely reliant on the importing of fresh fruit and vegetables (F&V), the mango varieties available on the local market are imported from many different countries. Importers in the survey indicated several visible changes in the market, such as: Philippine mangoes are the most popular and becoming more expensive due to an increase in their own

domestic demand; new varieties from China, India, and other countries were introduced into Hong Kong which has influenced supplies; and the volume of Thai mangoes in Hong Kong has been decreasing due to Thai mangoes being exported to other markets, such as the EU and USA.

Depending on the country of origin and variety, exporters ship their mangoes to Hong Kong mainly by sea or by air. For instance, premium mangoes from Japan, Taiwan, and Australia are delivered to Hong Kong by air. Other mangoes which mainly come from the Philippines are sent by sea. In recent years, Hong Kong importers have tended to import green mangoes by sea to reduce shipping costs.

One interviewee stated that mango consumption in Hong Kong is decreasing because of damages that occurred during handling and the relatively short shelf life – as well as changing consumer preferences towards other easy-to-peel fruits, such as citrus or cherries. The interviewee also indicated that consumers have started to buy premium mango varieties with very high sugar levels. In general, buyers often use colour to grade the mangoes – with yellow background and red blush graded higher among the same variety of mango. Consumers also select mangoes by smell, colour, and appearance.

Customers have started to purchase mangoes online, with online shopping rapidly developing in Hong Kong. However, e-commerce *“is much less developed in Hong Kong compared with the Mainland”*; and compared to other channels, e-commerce is not yet a major channel for fresh fruit and vegetable distribution. QR code and traceability features were found to be important among the young generation, while traditional housewives do not value these features. Hong Kong supermarkets however need their supplies to be traceable, and traceability was found to be particularly important to the high-end supermarkets.

Based on information from the online semi-structured interviews, information from visiting one wholesale market, and information collected from the mango retail observation survey, the following section provides an analysis of the Hong Kong mango market.

Mango imports into Hong Kong

Due to their various origins, mangoes are available on the Hong Kong market nearly all year round. For importers, April to September are the peak import months, November to January (winter time) are the low import months, whereas the remaining months are medium import months.

Table 1: Calendar of mango imports into Hong Kong

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Low	Medium	Medium	Peak	Peak	Peak	Peak	Peak	Medium	Medium	Low	Low

Source: (Hong Kong mango market online qualitative semi-structured interviews, November 2020)

During the peak period, mangoes came from many origins such as the Philippines, Thailand, Vietnam, and China (Hainan, Guangxi); while in the wintertime, the majority of mangoes came from Australia. Notably, one importer stated that recently, during the lunar New Year, Hong Kong customers preferred to buy cherries and citrus fruit than mangoes since *“Citrus fruits and cherries are easy to consume while it is messy to cut and eat mangoes”*.

Respondents expressed different views about the dominant varieties throughout the year. One importer indicated the major imported varieties were Carabao (from the Philippines), Nam Dok Mai (from Thailand), Aiwen (from Taiwan), Aiwen and Sun mangoes (from Japan), Alphonso

(from India), R2E2 (from Australia), and Keo (from Vietnam). According to another importer, imported varieties were mainly Irwin (from Taiwan), Miyazaki (from Japan), Cat Hoa Loc, and R2E2 (from Vietnam), R2E2, and Kent (from Australia), Carabao (from the Philippines), and Nam Dok Mai (from Thailand). While a third importer indicated Sun mangoes (from Taiwan or Japan) were the top quality variety and often sold in premium retail outlets; R2E2 (from Australia or Vietnam) the second most popular variety; and that Thailand mangoes were also popular but less so than Sun and R2E2 mangoes. It was generally agreed that Philippines mangoes were popular within the food services industry; with 70-80% of imported Philippine mangoes distributed to bakery, hotel, or other food outlets.

Despite having differing views, all respondents felt that sweetness, aroma, and price were the prominent factors influencing mango sales. In general, mangoes from the Philippines dominated market share because they enjoyed a long season and were therefore sold most across supermarkets. Furthermore, they can be shipped via sea and are usually ready to eat in one or two days – they are also becoming increasingly well known. Mango wholesalers indicated that Filipino Mangoes were still leading the peck as *“Hong Kong consumers most preferred mangoes from the Philippines as we grew up eating them”*.

One respondent stated that Chinese mangoes have become rapidly more prevalent over the last few years, as the poverty alleviation program has considerably increased mango supply across China. Vietnamese, Thai, Taiwanese, Chinese, and Philippine mangoes all have the same peak season – meaning that Vietnamese mangoes have to compete with others in the Hong Kong market from March to May (or June to August). As a result, they are often not available to customers in the market, resulting in a small market share for Vietnamese mangoes.

There are currently no import regulations or market controls for imported mangoes into Hong Kong. One importer revealed that his company applied hot water treatment on imported mangoes, however, this is not a mandatory requirement. With hot water treatment, mangoes will typically have a longer shelf life and be of better quality.

Hong Kong as a port of entry into Mainland China

As highlighted above, the position of Hong Kong as a re-export hub to Mainland China has declined in recent years, with other countries now able to export F&V directly to China via low import taxes. Therefore, the ‘grey channel’ – *whereby products are driven from Hong Kong to China thus avoiding import duties* – has become less common for mangoes. However, one interviewer in this study indicated, *“Hong Kong is still an important port for Australian fruits because they still come to Hong Kong and are then transported to Shenzhen and Guangzhou”*. Other than the grey channel, whereby mangoes are imported directly into China via the port of Hong Kong, importers must follow Mainland Chinese rules (e.g. biosecurity certificates, vapor heat treatment, or extended hot water treatment).

Fresh mangoes in the Hong Kong retail market

The three major retailers of mangoes in Hong Kong are supermarkets, wet markets, and food services. In addition to supermarkets and wet markets, consumers can also buy fresh mangoes from department stores and wholesale markets. One interviewee said that Hong Kong wholesale markets are open to retail customers and these wholesale markets (with plenty of fresh fruit varieties from different countries) often have better fruit than the supermarkets.

The information generating from the wholesale market visit confirms that consumers can buy fresh mangoes (and other fresh agricultural products) directly from wholesalers. Specifically, wholesalers buy mangoes from importers and sell them mainly to the wet market vendors in the

early morning hours (4-5 am). Wholesalers also sell their mangoes to food services (hotels, bakery, dessert shops) and end consumers (Figure 1). However, “large retail bakery chains and dessert chains do not purchase from wholesalers. Presumably, they are purchasing directly from importers”.

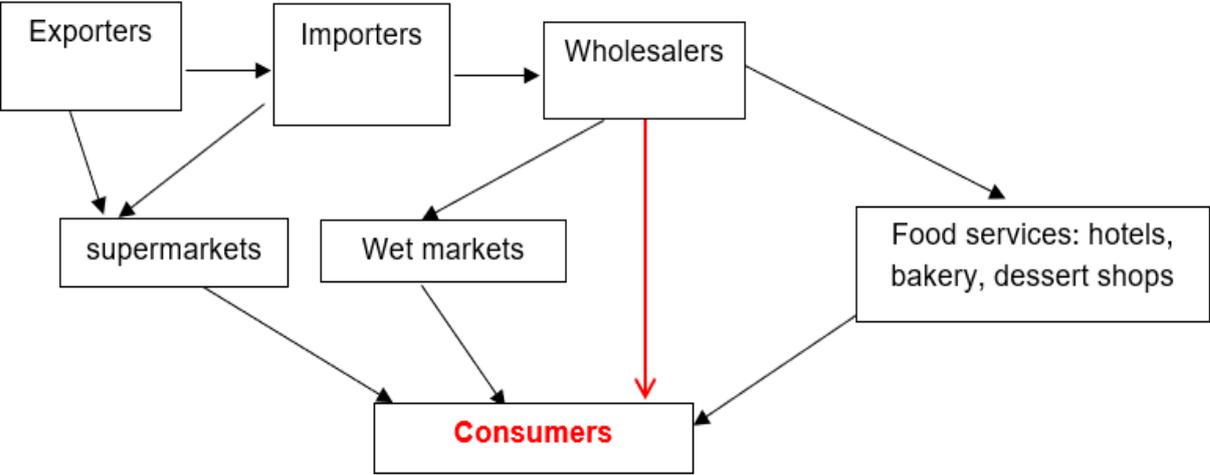


Figure 1: Mango supply chain in Hong Kong market

Source: Based on limited information gathered from a wholesale market visit in December 2020, Hong Kong

One importer indicated that mangoes are not ready to eat when sold in the market: “most mangoes in the market are not ripe enough at the point of sale” and “supermarkets do not want to keep ripened mango because they need some time to sell. They prefer to keep green mangoes for the longer shelf life”. Therefore, although consumers usually like to purchase ready-to-eat mangoes, they typically have to wait 2-3 days prior to eating.

- **Fresh mangoes at supermarkets**

According to respondents, the majority of fresh fruit in Hong Kong is sold in supermarkets. These supermarkets import their mangoes via importers or traders. One importer said that “normally, in one shipment, supermarkets require a small percentage (5%) of bigger size mangoes”. Some supermarkets imported mangoes directly from exporters (such as Keo mangoes from Vietnam). Thailand and Philippine mangoes are still the dominant varieties in Hong Kong supermarkets, with mangoes from Vietnam, Peru, and Brazil mangoes also available – while a few high-end supermarkets sell premium mangoes from Japan and Taiwan. Compared to other fruits, the shelf space for mangoes within supermarkets is relatively small; and the shelf life of mangoes is usually up to around seven days.

The mango retail observation survey was conducted to better understand the Hong Kong mango market during wintertime and Christmas holiday periods, along with available varieties, prices, and origins within the retail market. There were three supermarkets and one high-end supermarket located at Tsuen Wan District, Kowloon Tong District, and Causeway Bay District included in this survey. Observations in these supermarkets show that:



Figure 2: Australian R2E2 mango and Chinese Jade mango in the supermarket located at Tsuen Wan District, Hong Kong.

Source: the mango retail observation survey, the Christmas Holiday 2020.

One supermarket had a large fresh produce section selling a wide range of fresh fruit, including the more expensive types from Japan. Australian mangoes in this supermarket were cheaper than those found in the wet market nearby: unit price: HKD22.95 (HKD45.9/2) vs. HKD27.5 (HKD55/2).¹ Mango from Mainland China (Jade mangoes) was also stocked in this supermarket. Compared to Australian mangoes, the price of Jade mango in this supermarket was much lower, with a unit price of HKD8.45 (HKD16.9/2) (see *Figure 2*).

One supermarket stocked four mango varieties: two Australian mango varieties, one variety labelled as Australian mango (HKD59.9/each), and one labelled as R2E2 mango (HKD46.9/2, Unit price: HKD23.45) (see *Figure 3*); Thai mango (Mamuang) – price HKD25/each; and China mango (Jade) – price HKD 16.9/2, Unit price: 8.45. This supermarket also offered pre-cut mangoes (HKD 49.9/pack), with no country of origin, net-weight, or unit price information.



Figure 3: Two Australian mango varieties at the supermarket located at Kowloon Tong District, Hong Kong.

Source: the mango retail observation survey, the Christmas Holiday 2020.

¹ 1 AUD is equal to 5.90 HKD approximately in December 2020.

One supermarket had both Australian mangoes (R2E2) and Chinese mangoes (Jade) with plenty of stock on display. The prices were HKD26.9/each and HKD16/each respectively (see Figure 4).



Figure 4: Australian mango and Chinese mango in the supermarket located at Causeway Bay District, Hong Kong.

Source: the mango retail observation survey, the Christmas Holiday 2020.

One high-end supermarket had Australian mangoes (R2E2), retailing at HKD28.0/each.

- **Fresh mangoes at Japanese department stores**

In the mango retail observation survey, there were several Japanese Department Stores located at Quarry Bay District and Shatin District. One of these was a high-end department store and most of the fruit on its shelves was sourced from Japan – selling at premium prices. Some small quantities of fruits from western countries were also sold (e.g. Gala apples from Canada and Spanish persimmon), however, there were no mangoes from any country in this store (see Figure 5).



Figure 5: Fruits on shelves in a high-end Japanese Department Stores located at Shatin District, Hong Kong

Source: the mango retail observation survey, the Christmas Holiday 2020.

One store offered low prices every Wednesday and generated huge customer traffic and sales turnover. At this store, some resellers placed their promoters at the point of sales². During the visit, only Chinese mangoes were on shelves (HKD10/each). This retailer also sold cut fruits (chilled), and two packs of cut mangoes were found (HKD42.9 /pack, no net weight or country of origin) (see Figure 6).



Figure 6: Chinese (Jade) mango and cut-fruits packs in one Japanese store located at Quarry Bay District, Hong Kong

Source: the mango retail observation survey, the Christmas Holiday 2020.

At another store, large quantities of Japanese fruits were being sold at premium prices. Chinese “kidney” mangoes were sold by this store (no unit price is given but estimated to be about HKD29/500g). The cut-fruit section also placed on sale sliced mangoes (seemingly using normal Chinese mangoes, but not stated on the label); while the deli section also sold portioned, ready-to-serve Thai mango with a glutinous rice dessert (see Figure 7).



Figure 7: Chinese (Kidney) mango, cut-fruit mango, and Thai mango with glutinous rice in a Japanese store located at Shatin District, Hong Kong

Source: the mango retail observation survey, the Christmas Holiday 2020.

² Mexican avocados and Korean berries were doing this at the time of visit

- **Fresh mangoes at wet markets**

One interviewee revealed that Philippine mangoes were currently the most common varieties sold at Hong Kong wet markets, followed by mangoes from Thailand, Taiwan, Japan, Vietnam, Peru, and Brazil. Wet markets generally obtain their mango from wholesalers.

Besides supermarkets and Japanese Department Stores, the mango retail observation survey also entailed two independent operators in the wet markets (located inside municipal service buildings, with a standard booth of around three metres squared) and several stalls within traditional large outside wet-markets. Information from these wet markets showed that:

- One independent operator in the wet market at Mongkok District had both Australian and Philippine mangoes for sale. However, it was unclear if these were Philippine mangoes given their rather low price and no label (only HKD26/3, Unit price: HKD8.7). The Australian mangoes were sold at HKD50/each (see Figure 8).



Figure 8: Australian and Philippine mangoes in the wet market located at Mongkok District, Hong Kong

Source: the mango retail observation survey, the Christmas Holiday 2020.

Another independent operator in the wet market at Shatin District offered a premium range of fruits and also set prices relatively high. The price of Australian mangoes per piece varied between HKD68 and HKD86, depending on size.



Figure 9: Chinese Kidney mango, Thailand mango, and Australian mango in the traditional wet market located at Choy Hong District, Hong Kong

Source: the mango retail observation survey, the Christmas Holiday 2020.

One stall in the **traditional wet market (outdoor)** at Choy Hong District sold Chinese “kidney” mangoes at a very low price (HKD11/500g); another stall offered the last four Thailand mangoes for HKD25 for four pieces; two stalls were selling Australian mangoes at the rather low

price of HKD45/3 (Unit price: HKD15); one shop operating in this wet-market had plenty of mangoes for sale (HKD25/3, Unit price: HKD8.33) however the shop assistant was not able to state the country of origin of these fruits (see Figure 9).

Overall information from the mango retail observation survey in Hong Kong revealed that:

- During the Christmas holiday, Australian mango (R2E2) was one of the most popular varieties in supermarkets and wet markets, followed by Chinese (Jade) mangoes. Varieties from countries such as Thailand and the Philippines were in short supply;
- No mangoes were labelled as Vietnamese mangoes at the retail market during the time of visit. Sellers at the wet markets did not provide any remarks regarding Vietnamese mangoes due to lack of familiarity or experience in trading Vietnamese mangoes;
- Excluding traditional wet markets (outdoor market), on average, prices of Australian mangoes in supermarkets were *cheaper* than those in the wet markets operating inside municipal services buildings;
- Prices of Chinese mangoes were much cheaper than Australian mangoes (Unit prices: around HKD8.5 and HKD23 upwards, respectively);
- Hong Kong retailers displayed their mangoes on shelves, without packaging or boxes – unlike other premium fruits;
- Besides fresh mangoes, some supermarkets/department stores also sold cut-fruit mangoes.

Hong Kong food services use mango as an ingredient

Food services, especially bakeries, are one of the three main retail segments of mangoes in Hong Kong: *“dessert shops use lots of mangoes (ingredients for cakes, drinks, juice...)”*. Food services require sweet, firm mangoes, which are of a consistent quality. Therefore, this segment uses mangoes *“mostly from the Philippines (and also from China)”*. One respondent said that *“Philippine mangoes’ tastes and prices were perfect for bakery, 70%-80% of imported Philippine mangoes went to bakery or hotel, food service industries”*, another indicated *“no-brand Philippine mangoes are popular for bakery, hotels, and other food services”*. One wholesaler during the wholesaler market visit said that *“one dessert chain using mangoes shipped directly from China because of cost reasons”*.

To obtain a longer shelf life, reduce costs, and maintain a stable supply, one Hong Kong importer imports green mangoes by sea and ripens them at Hong Kong – prior to supplying bakeries and other food services. This importer said that his company imported green Philippine mangoes via refrigerated containers (at 13 degrees) and allowed the mangoes to ripen in Hong Kong; his company owns a ripening room that employs temperature and humidity to ripen green mangoes. This company also includes a factory to provide cut-fruit mangoes and other fruits for airlines.

Hong Kong fruit supply and sale under COVID-19

According to interviewees, *“COVID-19 has been affecting most sectors in Hong Kong and will take a much longer time to recover”*. On the supply side, freight disruption during the pandemic resulted in difficulties for importers of mangoes: *“COVID-19 means airfreight was very difficult for Thailand mangoes this year; also there was not much R2E2 from Australia because of freight disruption, etc.”* On the demand side, there is a pessimistic attitude towards the market due to COVID-19, with purchasing power and demand both decreasing. One respondent believed, *“during COVID-19, online trading is getting more and more popular. Improved logistic services and protective/attractive packaging are needed to meet this market”*.

In terms of COVID-19 free certificates, they are compulsory for fresh produce packaging for supply to supermarkets in China, in that *“every single container imported to China must be tested at the port”*. However, there are no COVID-19 free certificate requirements within the Hong Kong market, no testing on fresh produce imports to Hong Kong regarding COVID-19, and Hong Kong consumers still generally trust fruit imported from COVID-19 infected countries (such as the USA).

Vietnamese mangoes at the Hong Kong market

Trends in the supply of Vietnamese mangoes

Hong Kong importers in this study revealed they started to see Vietnamese mangoes in recent years; and in 2020, Vietnamese mangoes became more popular in the Hong Kong market. In both supermarkets and wet markets, the mangoes from Vietnam are usually *“present in Hong Kong around mid-year (peak season)”*; *“more Hong Kong people got to know Vietnamese mangoes but they are still not as well known as mangoes from the Philippines”*; *“Vietnamese mangoes are starting to be used for food services”* and *“bakeries began looking for Vietnamese mangoes this year”*.

Several varieties of mangoes from Vietnam were identified by importers as Keo, Cat Hoa Loc, Elephant mango, and R2E2: *“the last two months (October and November 2020), Vietnamese Keo mangoes were sold much better in Hong Kong than mangoes from other countries”*, *“in supermarkets, they have elephant mango and the Cat Hoa Loc mango”*; *“we could see the new variety R2E2 from Vietnam, most Vietnam R2E2 is in the wet markets”*.

One respondent said that supermarkets did not buy Vietnamese mangoes (or other Vietnamese fruits) directly from Vietnam exporters; instead, they bought via Chinese/Hong Kong traders and suppliers. The main reasons were: *“it is difficult for Vietnam companies and Vietnam people to complete the registration forms”*; and *“supermarkets only buy certain sizes but Vietnamese companies supply all sizes”*. Conversely, another importer stated, *“Supermarkets also import directly from Vietnam”*. However, since Vietnam mangoes are still new to the Hong Kong market, it needs more information to obtain a better picture of the Vietnamese mango supply chain in Hong Kong.

From the mango retail observation survey, no mangoes at the retail market were labelled as Vietnamese mangoes although one importer in the online interview indicated during October to November 2020, *“Vietnamese Keo mangoes were sold much better in Hong Kong than mangoes from other countries”*. Potentially these Keo mangoes were mixed with Chinese Jade mangoes and were sold as Jade mangoes, given Vietnamese mangoes were mainly imported into Hong Kong indirectly via mainland China: *“they usually come from Guangxi by trucks, and then enter Hong Kong from Guangdong”* (see Figure 10). However, this assumption needs to be further investigated.



Figure 10: Similarity between Vietnamese yellow Keo mangoes (left) and Chinese Jade mangoes (right)

Source: *xoaikimnhungdongthap.com* (left) and the mango retail observation survey (right)

From the wholesale market visit, wholesalers did not show much enthusiasm towards Vietnamese mangoes. One wholesaler “*would only sell whichever varieties in season*” and another said that “*compared to Vietnamese mangoes, Thai and Taiwanese products would be better choices*”. However, no specific reasons were given due to limited interactions with wholesalers during the visit.

Advantages and disadvantages of Vietnamese mangoes

Prices and quality are the two main advantages of Vietnamese mangoes within the Hong Kong market. Vietnamese mangoes have *affordable prices* compared to Philippine mangoes and mangoes from other countries; while the quality of Vietnamese mangoes is also reasonably good.

Another advantage is that Vietnamese suppliers are open and flexible regarding pricing and quantity. One respondent in this study mentioned: “*Vietnamese suppliers let the importers or wholesalers trade fruits under consignment terms (do not need to pay, deposit); these importers and wholesalers can set up the prices in the market instead of the suppliers. So the importers and wholesalers can sell the fruits more easily based on the market conditions*”.

Despite these advantages, several disadvantages of Vietnamese mangoes were identified such as the mangoes were often not recognised by Hong Kong customers, had no special variety, became mixed up with Chinese mangoes, and lacked adequate promotion.

Potential opportunities of Vietnamese mangoes

All respondents stated that there will be future opportunities to trade Vietnamese mangoes in the Hong Kong market. Over time, Hong Kong consumers may get accustomed to the flavours of Vietnamese mangoes. Traditional wet markets should provide relatively easy access to sell Vietnamese mangoes; but in long term, to fully penetrate the retail sector, supermarkets are important.

However, sufficient time is needed to market Vietnamese mangoes in Hong Kong and educate consumers: “*it is important to educate consumers about the mangoes from Vietnam, such as appearances and how to choose good mangoes (e.g. Hong Kong consumers are still chasing for skin colours (yellow, red) but green mangoes from Vietnam are ready-to-eat)*”.

Some recommendations from Hong Kong importers to Vietnamese mango suppliers are: “*invite Hong Kong importers to production sites or pack-houses to learn more about the product origins*”, “*have promoters in stores to introduce the details of mangoes, how to eat, seasonality, etc.*”, and “*target the months of typhoon season in Philippine mangoes*”.

Australian mangoes at the Hong Kong market

Trends in the supply of Australian mangoes

In general, Australian mango is highly desirable among Hong Kong consumers. Australian R2E2 and Calypso mangoes have become very popular over recent years; while Kensington Pride mangoes have become less popular within the Hong Kong market. In addition to R2E2 and Calypso, one importer stated that Kent and Tommy Atkins mangoes were also popular in Hong Kong and other Asian countries.

In terms of prices, Australian mangoes have been expensive over the last three years, especially during the Christmas Holiday and New Year period (winter time) – when there is a limited supply of mangoes in Hong Kong. Due to the high prices, Australian mangoes are sold mostly in supermarkets and other premium locations. Australian mangoes are also sold at Hong Kong wholesale market. There were quite a few brands of Australian mangoes on display in the wholesale market during the December 2020 visit.

As highlighted above, COVID-19 led to significant freight disruption, hence, in 2020, there was still a relatively low volume of Australian mangoes. Because of the long-distance, the majority of Australian mangoes were shipped into Hong Kong by airfreight. Furthermore, *“Kensington Pride mangoes used to be shipped via sea freight resulting in large waste”*.

The mango retail observation survey in December 2020 confirmed that Australian mangoes were the most popular varieties in major grocery chains, as well as both contemporary and traditional wet markets during the wintertime. The retail penetration of Australian mangoes was found to be quite high. Australian mangoes have already generated a decent level of awareness among the local consumers. The comments made by wet-market sellers on Australian mangoes were largely positive.

Advantages and disadvantages of Australian mangoes

High quality, good taste, and attractiveness (because of colour variety, large size, and strong aroma) were the main advantages of Australian (R2E2) mangoes. One seller at the wet market claimed, *“Australian mangoes were sweet and had a good aroma, comparable to Philippine ones”*, while Australian mangoes also had the advantage of having a thicker layer of flesh. Several wholesalers liked the sweet taste of the Australian mangoes and said that *“Australian mangoes tended to be quite aromatic”*. Furthermore, Australian mangoes have an established premium image among customers within the Hong Kong market. The counter-seasonal supply of Australian mangoes (compared with Philippine mangoes) also provides an advantage.

The same interviewees also revealed that high prices and lack of promotional activities were some of the disadvantages of Australian mangoes. For example, one importer stated, *“Vietnamese R2E2 is cheaper than Australian R2E2 mangoes”*. The greater distance of Australian mangoes leading to longer shipping times, when using sea freight, was another disadvantage.

Potential opportunities of Australian mangoes

Although Australian R2E2 is becoming increasingly popular during the counter-season, in the future, *“some work has to be done in penetrating Japanese department stores which are patronized a lot by the upper-middle-class customers.”*

Conclusions

From the analyses above, we draw a number of conclusions in terms of: (1) the key characteristics of the Hong Kong mango market; and (2) the main advantages and disadvantages of Vietnamese mangoes and Australian mangoes within the Hong Kong market.

Key characteristics of the Hong Kong mango market

- In general, Hong Kong is an easy-to-access market for mangoes from other countries, with no import regulations or controls on imported mangoes into Hong Kong – mangoes in Hong Kong are imported from many different countries.
- Mangoes in the Hong Kong retail market are sold by fruits (individual fruit or combo of two to four fruits) rather than by kilograms. For some small mangoes (e.g. Chinese Kidney mangoes), they are sold in packages without net weight on the labels.
- During the peak season, Philippine mangoes dominate the market; while during wintertime Australian mangoes are the most popular varieties. Vietnamese mangoes occupy a relatively small market share and are often not recognised by customers or sometimes even by sellers.
- Prices of mangoes in the Hong Kong retail market can be classified into three to four groups, in which the traditional wet market group sets the lowest prices. The price gap between this lowest price group and the other groups is quite high. The supermarket group sets medium/high prices; while prices of premium mangoes (e.g. Australian mangoes during winter time) in the supermarkets are cheaper than those in the wet markets operating inside municipal service buildings. High-end supermarkets and Japanese Department stores sell premium mangoes and set the highest prices (compared to other groups) for their fruits.
- From the mango retail observation survey, it can be seen that the Hong Kong retail market sells both labelled and non-labelled mangoes; and the majority of non-labelled mangoes are sold at traditional wet markets. For labelled mangoes, the majority of these mangoes are labelled with the country of origin (e.g. Australian mango) however do not indicate the exact variety (e.g. Calypso Australian mango).
- Hong Kong retailers displayed their mangoes on shelves, with no packages or boxes. Besides fresh mangoes, some supermarkets and department stores also sold cut-fruit mangoes.
- Although consumers usually prefer to purchase ready-to-eat mangoes, supermarkets do not want to keep ripe mangoes on their shelves – instead, supermarkets prefer to keep green mangoes for a longer shelf life.
- Compared to the past, the position of Hong Kong as a re-export hub to Mainland China has become less important.

Main advantages and disadvantages of mangoes from Vietnam and Australia

The Hong Kong market is a potential market for fresh fruit and vegetables in general, and for mangoes in particular. Both Vietnam and Australia have opportunities to further increase mango exports into this market.

Specifically, Vietnamese mangoes sell at affordable prices and are of reasonably good quality. Vietnam is also located close to Hong Kong; so Vietnamese exporters are able to ship their green mangoes by sea to reduce shipping costs. Australian mangoes were found to be of good quality, good taste, high attractiveness, and enjoyed a premium image among customers

within the Hong Kong market. Australia also supplies counter-seasonal mangoes and has become the most popular variety across Hong Kong during wintertime.

However, Vietnamese mangoes are often combined with Chinese mangoes and, therefore, often not recognised by Hong Kong customers. Compared with mangoes from other countries, prices of Australian mangoes were found to be too high, while both Vietnamese and Australian mangoes were lacking sufficient promotion within the market.

Insights and next steps

To further increase mango exports into the Hong Kong market, different market segments should be targeted for Vietnamese and Australian mangoes, based on their respective advantages and disadvantages:

- Vietnamese mangoes should be targeted at customers of traditional wet markets (and supermarkets) – however, time is needed to conduct consumer marketing and education regarding Vietnamese mango varieties, before targeting higher-income customers.
- Vietnamese mangoes can also target the food services segment by supplying mature green mangoes (for the bakery industry); or by supplying several price-competitive mango products (e.g. frozen fresh-cut mangoes) for other food services, using the ingredients in juice, smoothies, etc.
- Australian mangoes should take advantage of their premium image among consumers and their off-season availability during wintertime to penetrate Japanese Department stores and other high-end supermarkets/wet markets – to better meet the demand of high-income customers.
- Australian mango suppliers could introduce suitable packaging (similar to other premium fruits) to further exploit the demand and willingness to pay of high-end customers. Furthermore, applying traceability on Australian mangoes would better meet the requirements of high-end supermarkets and stores.

This study provides an overview of the Hong Kong mango market and demonstrates the potential for increased mango sales from Vietnam and Australia. However, due to COVID-19, the research team conducted a reduced number of online semi-structured interviews and, therefore, cannot paint a more thorough picture of Hong Kong mango value chains.

To better understand mango value chains and the potential for mangoes within the Hong Kong market, several semi-structured interviews of different respondent groups (supermarkets, stalls at traditional wet markets, sellers at indoor wet markets, food services, and processors) should be conducted in the near future. Another mango retail observation survey from April to August should be taken into consideration, in order to obtain information during the peak-season. Furthermore, to provide more detailed recommendations regarding the supply of mangoes from Vietnam and Australia, the research team should conduct a study around consumer evaluation of mangoes – to reveal Hong Kong customers' preferences and willingness to pay for different mango attributes.

Appendix 1: Checklist of Mango importers in Hong Kong

- Company name: _____
- Address: _____
- Interviewee name: _____ Position: _____
- Email/Wechat/Phone: _____

1. What have been the most visible changes in the mango market in Hong Kong over the past three years or so? (*certification; product traceability; online shopping, direct shopping from farmers/overseas, packaging, etc.*)
2. What have been the trends in the supply of Vietnamese mangoes into Hong Kong over the last three years or so? What were the drivers? (*quantity; price; quality; consumer preferences; consumers' purchasing power...*)
3. What have been the trends in the supply of Australian mangoes into Hong Kong over the last three years or so? What were the drivers? (*quantity; price; quality; consumer preferences; consumers' purchasing power...*)
4. Position of Hong Kong as a port of entry into mainland China
(*share of imports flowing from HK to mainland China, type of imported mangoes flowing to mainland China, main destination markets in mainland China, import barriers/regulations in HK and mainland China*)
5. Calendar of mango imports into Hong Kong: peak/medium/low import months for importers as a whole

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

What are the reasons (*demand and supply*) behind seasonal import patterns?

6. Ranking of product origins, including mainland Australia and Vietnam, throughout the year for importers as a whole

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

What are the reasons for the dominance of certain origins? (*geographical proximity? quality? price? compliance with government regulations? other reasons?*)

7. What are the dominant imported varieties?

What are the reasons for their dominance? (*consumer quality preferences? price? other reasons?*)

8. What are the import regulations for mangoes in HK? How do they compare with mainland China?

9. What are the most competitive advantages and disadvantages of Vietnamese and Australian mangoes/varieties respectively, compared to mangoes from other origins? Do you see potential / opportunities for increased purchases of Vietnamese and Australian mangoes? Please explain why?

Country	Advantage	Disadvantage	Potential opportunities
Vietnam			
Australia			

10. In response to CoVID19, what changes have you and the sector implemented regarding fruit supply and sale? Are these changes well acceptable to your customers and are the changes likely to stay post CoVID19?

Appendix 2: Checklist of Supermarkets/ Food Services*

(*hotel, restaurant, bakery, and food processing)

- Company name: _____

- Address: _____

- Interviewee name: _____ Position: _____

- Email/Wechat/Phone: _____

1. What is the profile of your fruit customers (*market segment*)?
2. What have been the trends in your mango sales over the last three years or so (*certification; product traceability; online shopping, direct shopping from farmers/overseas, packaging, etc.*)? What were the reasons behind these trends?
3. What is the approximate share of mangoes of different varieties from different origins in your portfolio?
4. How have these shares changed over the past three years or so? What were the reasons behind these changes?
(*changes in production; price; quality; consumer preferences; etc.*)
5. Do you import mangoes directly? If yes, what are the import regulations for mangoes? Describe the chain to your retail store.
6. If not, who are your suppliers of imported mangoes? (*Does your company have product specification requirements, CoVID19 free certificate?*)
7. What are the different market segments and channels for imported mangoes in Hong Kong? What is the relative importance/size of different market segments? How do they differ in terms of product origin, product preferences/characteristics, and price range?
8. Calendar of mango imports: peak/medium/low import months for your sector as a whole

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

What are the reasons (*demand and supply*) behind seasonal import patterns?

9. Ranking of product origins, including Australia and Vietnam, throughout the year for your sector as a whole

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

What are the reasons for the dominance of certain origins?

(*geographical proximity? quality? price? compliance with government regulations? other reasons?*)

10. What are the most competitive advantages and disadvantages of Vietnamese and Australian mangoes/varieties respectively, compared to mangoes from other origins? Do you see potential / opportunities for increased purchases of Vietnamese and Australian mangoes? Please explain why?

Country	Advantage	Disadvantage	Potential opportunities
Vietnam			
Australia			

11. In response to CoVID19, what changes have you and the sector implemented regarding fruit supply and sale? Are these changes well acceptable to consumers and are the changes likely to stay post CoVID19?

12. Do you expect Hong Kong consumers' purchasing behavior of fresh mangoes to change post CoVID19? In what ways if so?

Appendix 3: Checklist of Mango Wholesalers in Hong Kong

1. What have been the trends in the supply of Vietnamese mangoes into Hong Kong over the last three years or so? What were the drivers? (quantity; price; quality; consumer preferences; consumers' purchasing power...)
2. What have been the trends in the supply of Australian mangoes into Hong Kong over the last 5 years or so? What were the drivers? (quantity; price; quality; consumer preferences; consumers' purchasing power...)
3. What does the supply chain look like for mangoes of different segments in Hong Kong? Please add or cross arrows below as appropriate and indicate the major chains for mangoes to reach consumers in Hong Kong.
4. What are the dominant imported varieties?
5. What are the most competitive advantages and disadvantages of Vietnamese and Australian mangoes/varieties respectively, compared to mangoes from other origins? Do you see potential / opportunities for increased purchases of Vietnamese and Australian mangoes? Please explain why?

Country	Advantage	Disadvantage	<u>Potential opportunities</u>
Vietnam			
Australia			

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