

MANGOSTEEN EXPORT BUSINESS STRATEGY AT CV A&H FRUITS GROUP

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Abstract: CV A&H Fruits Group was an exporter from Puspahiang, Tasikmalaya Regency, which offered high-quality mangosteen fruit to the Chinese market. In carrying out its business activities, the company faced instability in mangosteen supply and logistics costs, which had increased significantly due to the Covid-19 pandemic. Apart from that, amidst the many uncertain factors in the agricultural industry, companies needed strategies to remain viable and competitive. Therefore, this study examined the business strategy of CV A&H Fruits Group by reformulating its business model. This study used primary data analysis through in-depth interviews and secondary data analysis through literature studies. The purposive method was used to determine respondents consisting of company directors, farmers, competitors, and the Tasikmalaya District Food Crops Service. The data analysis tools used were the Business Model Canvas and SWOT. Based on the SWOT analysis results, five alternative strategies were formulated, namely offering seedless mangosteen, establishing cooperation with logistics services, expanding cooperation with suppliers, improving service management, and improving warehouse management and product quality. These five strategies were applied to the current BMC resulting in a reformulation of the business model that was reflected in the future BMC CV A&H Fruits Group. This reformulation focused on improving value proposition elements by offering seedless mangosteen, enhancing service to prospects and customers, and carrying out cost efficiencies. Company management needed to intensify relationships, collaboration, and/or cooperation with farmers, universities, or the government to maintain sustainable mangosteen supplies; and logistics services to cut logistics costs.

Keywords: business model canvas, business strategy, seedless mangosteen, mangosteen, SWOT

Abstrak: CV A&H Fruits Group merupakan eksportir dari Puspahiang, Kabupaten Tasikmalaya yang menawarkan buah manggis berkualitas tinggi ke pasar China. Dalam menjalankan aktivitas usahanya, perusahaan menghadapi ketidakstabilan pasokan manggis dan biaya logistik yang meningkat signifikan akibat pandemi Covid-19. Selain itu, ditengah banyaknya faktor ketidakpastian di industri pertanian, perusahaan membutuhkan strategi untuk tetap bisa bertahan dan berdaya saing. Oleh karena itu, penelitian ini mengkaji strategi bisnis CV A&H Fruits Group dengan reformulasi model bisnisnya. Penelitian ini menggunakan analisis data primer melalui wawancara mendalam dan analisis data sekunder melalui studi literatur. Metode purposive digunakan untuk menentukan responden yang terdiri dari direktur perusahaan, petani, kompetitor, dan Dinas Tanaman Pangan Kabupaten Tasikmalaya. Alat analisis data yang digunakan adalah Business Model Canvas dan SWOT. Berdasarkan hasil analisis SWOT, dirumuskan lima alternatif strategi yaitu menawarkan manggis tanpa biji, menjalin kerjasama dengan jasa logistik, menggiatkan kerjasama dengan pemasok, meningkatkan manajemen layanan, dan meningkatkan manajemen gudang dan mutu produk. Kelima strategi ini diterapkan pada current BMC sehingga menghasilkan reformulasi model bisnis yang tergambar dalam future BMC CV A&H Fruits Group. Reformulasi ini berfokus pada peningkatan elemen proposisi nilai dengan menawarkan manggis tanpa biji, meningkatkan layanan pada calon pelanggan dan pelanggan, dan melakukan efisiensi biaya. Manajemen perusahaan perlu menggiatkan relasi, kolaborasi, dan/atau kerjasama dengan petani, universitas atau pemerintah untuk menjaga kesinambungan pasokan manggis; dan jasa logistic untuk memangkas biaya logistic.

Kata kunci: model bisnis kanvas, strategi bisnis, ekspor, manggis tanpa biji, SWOT

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INTRODUCTION

Mangosteen fruit is known by the Latin name *Garcinia mangostana L.* which is rich in benefits. Xanthone is the main bioactive compound found in mangosteen peel which has various pharmacological activities such as antioxidant, anti-diabetic and anti-inflammatory (Muhammad et al. 2020). This highly nutritious fruit is a source of foreign exchange for Indonesia and a leading horticultural export commodity.

The central export destination countries for Indonesian mangosteen in 2019 are Hong Kong, with a volume of 12.1 K tons valued at US\$18.9 M; China, with a volume of 10 K tonnes valued at US\$20.5 M; and Malaysia, with a volume of 4.4 K worth US\$562 K (BPS, 2019). Even though Hong Kong is the country with the highest export volume, China's export value is still larger and has become a market that has good prospects. This shows that the factors that influence Indonesia's mangosteen exports are economic distance and export prices (Pradipta, 2014). Meanwhile, according to Azizah (2018), domestic production is a one of factors that influences Indonesian mangosteen exports.

Tasikmalaya Regency is one of the largest mangosteen production areas in Indonesia. Mangosteen production reached 30,6 thousand tons in 2018 which contributed 50,29% to total production in West Java (Dirjen Hortikultura, 2019). According to internal data from the Department of Food Crops and Horticulture District of Tasikmalaya, there were twelve exporters in 2018 which are oriented to the China market. However, this number increased after Indonesia and China signed a mangosteen export protocol on December 11, 2017 which opened up great opportunities for entrepreneurs to export mangosteen to China.

CV A&H Fruits Group is a mangosteen exporter in Puspahiang District, Tasikmalaya Regency, West Java. This company started export operations in 2019 with the aim of the Chinese market. From October 2021 to February 2022, the company exported 991 tons or US\$3.5 M worth of mangosteen (Table 1). Compared to the export volume for 2019 to 2020, which reached 2.5 thousand tons, the company's export volume decreased by 60.7% in 2021 to 2022 because of the instability of the mangosteen supply received from suppliers. During that time period, Indonesia faced an extreme climate which could be the cause of the decline in mangosteen

production (Rochdiani et al. 2023). Beside, the company faced the high cost of international transportation due to the Covid-19 pandemic. Covid-19 disrupted global trade and increased transportation costs due to restrictions on the movement of people and modes of transportation (Azahari et al. 2020).

The conditions experienced by the company were caused by climate change and a pandemic that could not be controlled. Dudin et al. (2015) stated that company structures in the agricultural industry are among the most fragile in terms of maintaining sustainable competitiveness. According to him, this can be circumvented by a business model canvas (BMC) which has its own characteristics when applied to companies in the agricultural industry. Fritscher and Pigneur (2014) stated that the changes experienced by the company must be reflected in its business model. Through strategic planning, companies can create new business models and find out possible conditions in the future.

Mustaniroh et al. (2020) used BMC to identify the business model of MSMEs in the apple food industry and design alternative strategies using SWOT. In the research of Muminoya et al. (2023), four coconut charcoal export companies in Yogyakarta that use BMC were able to retain customers and maximize existing resources and opportunities when facing the Covid-19 pandemic.

Based on the description, CV A&H Fruits Group needs to carry out strategic planning so the business can be sustainable and competitive, and also generate sustainable economic benefits. Business strategy studies can be carried out with a business model approach using the Osterwalder Business Model Canvas (BMC). As stated by Osterwalder and Pigneur (2010), an effective way to conduct a detailed assessment of the components of a business model is to combine strengths, weaknesses, opportunities and threats (SWOT) analysis with BMC.

Table 1. CV A&H Fruits Group Volume and Value Export (October 2021 – February 2022)

Logistics	Amount of Packing	Volume (tons)	Value (USD)
Container	130,244 baskets	970.7	2.860,784
Aircraft	2,910 boxes	20.4	648,545
Total		991.1	3,509,329

Research on mangosteen export strategies using BMC will add to the richness of studies, especially in the field of mangosteen exports. Based on literature observations, most research on mangosteen exports in Indonesia currently still covers the topic of competitiveness analysis and marketing channels. Meanwhile, in the international scope, it discusses analysis of mangosteen quality and supply chain. Hence, the objectives of this study include: 1) identifying the business model that CV A&H Fruits Group is running with the BMC approach, 2) identifying internal and external factors in each BMC element of CV A&H Fruits Group, 3) formulating a business strategy to be applied to BMC CV A&H Fruits Group, and 4) reformulating BMC CV A&H Fruits Group.

METHODS

This research was conducted at CV A&H Fruits Group in Kampung Puspahiang 010/003, Puspahiang District, Tasikmalaya Regency, West Java in the period October 2021 to June 2022. The companies and areas were selected purposively considering that Tasikmalaya Regency is the largest mangosteen center area in Indonesia which has a number of exporters. Meanwhile, the exporter of mangosteen, CV A&H Fruits Group, was chosen because this company is a start-up company with a high potential for business development but needs to improve and mature in its business model so that the company can grow and survive sustainably.

The data sources used in this study were primary data using in-depth interviews and direct observation techniques and secondary data using literature study techniques. Data collection was carried out from February to May 2022. Observations at CV A&H Fruits Group included observing the mangosteen sorting and grading process. While the secondary data collection was carried out using literature study techniques, including a review of studies on business strategy and data processing methods, as well as mangosteen data from government databases.

Interviews were conducted with the company directors to get information about the general description of the company, business activities, mapping of the nine BMC elements, SWOT analysis from the company's internal perspective (strength-weaknesses), determining the SWOT indicators that most influence business activities, and the formulation of alternative strategies. While

interviews with supporting respondents involved the coordinator of the Puspahiang Agricultural Extension Agency coordinator, Tasikmalaya Regency Food Crops and Horticulture Office staff, mangosteen farmers, competitors, and academics. This interview covers the conditions of the mangosteen business in Tasikmalaya Regency, policies implemented by the local government, competitors' business conditions, mapping of the nine elements of BMC, and SWOT analysis from an external company perspective (opportunities-threats).

The data processing method used in this study is a qualitative descriptive analysis method using BMC from Osterwalder (2010) and SWOT from David (2016). The first step is to map or identify the current business model of CV A&H Fruits Group using the nine elements of the Business Model Canvas as explained:

1. Customer segment: Individuals, groups and institutions are the target market.
2. Value proposition: The value offered to customer segments.
3. Channels: The way the product is delivered and the marketing channels used.
4. Customer relationships: Business actors' efforts to maintain good relations with customer segments.
5. Revenue streams: Sources of revenue from customer segments, as well as payment methods used.
6. Key resources: Resources that play an important role in the running of business operations.
7. Key activities: The main activities that make the business run well.
8. Key partnerships: Individuals, groups and institutions are the main partners of business actors.
9. Cost structure: Activities that have a major effect on business expenses.

Furthermore, an evaluation of the company's business model is carried out through internal and external environmental analysis using the SWOT components in each BMC element. Then, the strategic issues determination is described through SWOT analysis. The final stage is formulating an alternative mangosteen export business strategy for CV A&H Fruits Group using the SWOT matrix. The alternative strategy is then applied to the company's current business model so that the results of a business model reformulation are formed, which are reflected in the future BMC CV A&H Fruits Group. The research ownership framework is shown in Figure 1.

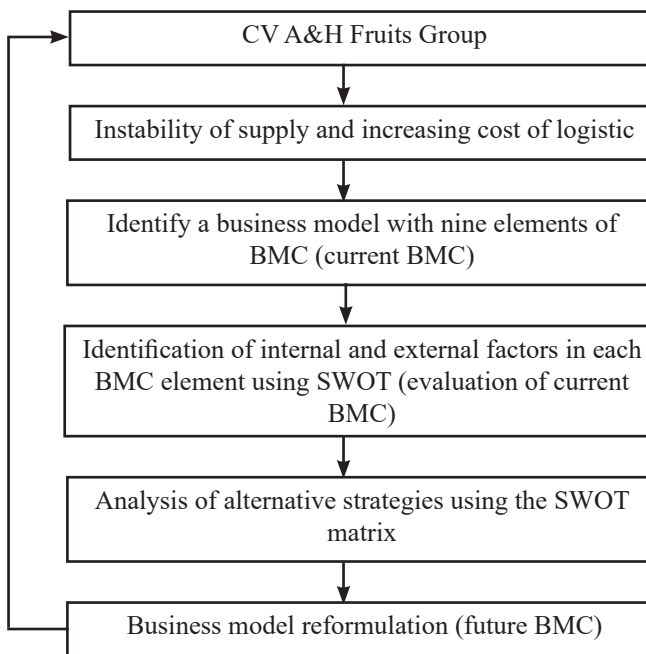


Figure 1. Research thinking framework

RESULTS

Identify Current BMC

The nine elements of the company's BMC were identified from interviews with the director of CV A&H Fruits Group. The BMC mapping that CV A&H Fruits Group is carrying out is illustrated in Figure 2. In the customer segment section, CV A&H Fruits Group exports mangosteen directly to importers who need high-quality fresh mangosteen fruit (Grade A or Super 1). The company also received a demand from Britain, Turkey, Russia, and Egypt. Even though the demand is very high, the company can still not fulfill this demand due to the limited supply of mangosteen. CV A&H Fruits Group does not market mangosteen to local supermarkets and traditional markets.

The value proposition offered by CV A&H Fruits Group is Grade A (Super 1) quality mangosteen with various types of sizes. Grade 3A has a small size, and there are about 14 pieces per kilo; 2) Grade 4A has a small size but is bigger than 3A, and there are about 12 mangosteens per kilo; 3) Grade 5A has a medium size, and there are about ten mangosteens per kilo; Grade 6A is a large size where there are about six mangosteens per kilo.

The corporate channels consist of communication and distribution channels. Companies use email to prospective customers (importers) by providing information about products and offers. In addition, WhatsApp and WeChat are the media used to communicate indirectly. Besides that, the distribution channel is a direct distribution channel from exporters to forwarders (goods transport services) and continuously from forwarders to importers.

The relationship built by the company with the importer (customer relationship) is personal in two-way communication both before and after the buying and selling process. This type of personal relationship is formed because of the B2B (business-to-business) type.

Besides, the main resources (key resources) owned by the company include: 1) a packing house, a place to carry out all main business activities; 2) a compressor, a tool that functions to clean mangosteen from OPT using the power of air pressure; 3) washing tub; 4) packing machines; 5) gensets; 6) baskets; and 7) organic medicine, functions to keep fruit fresh and durable and prevent OPT. Apart from physical resources, there are packing house certificates and mangosteen garden certificates (intellectual resources), human resources and capital.

The company's main activity (key activity) is selling mangosteen fruit to importers in China, procuring mangosteen fruit, and sorting and grading activities. The main partners (key partnerships) include mangosteen farmers and collectors (suppliers) and Chinese importers. So, the company's source of income (revenue stream) comes from exporting mangosteen fruit. The company does not have revenue from the sale of other products or other segments because what is sold is mangosteen fruit to importers

The company's operating costs (cost structure) consist of investment and operational costs. Investment costs include building packing houses, compressors, washing tubs, packing machines, generators, mini trucks, baskets, and buying mangosteen from collectors (raw materials). While operational costs consist of land rent for packing houses, electricity, petrol for mini trucks, employee and labor salaries, transportation and insurance rent, organic medicine for OPT, and taxes.

Key Partners	Key Activities	Value Propositions	Customer Relationship	Customer Segments
- Mangosteen farmer groups and collectors (supplier) - Chinese importer (buyer)	- Export of mangosteen fruit (selling) - Procurement of mangosteen from supplier - Sorting and grading (service operations)	- Offering high-quality mangosteen (Grade A) with various sizes requested by the customer	- Two-way personal assistance (B2B)	- Mangosteen fruit importer in China
	Key Resources - HR (labor, employees, suppliers) - Packing house - A set of sorting and grading tools - Basket		Channel - E-mail - Forwarders (logistics) - Direct distribution channel (exporter-forwarder-importer)	
Cost Structure -Purchase of mangosteen fruit -Logistics service fees		Revenue Stream - Investment costs - Operational costs - Mangosteen export sales to China		

Figure 2. CV A&H Fruits Group Current Business Model Canvas

Identification of Internal and External Factors on BMC Elements

An effective way to discover innovation is to combine SWOT analysis with nine elements on the Business Model Canvas (Osterwalder, 2010). An interview method was used with the CV A&H Fruits Group director to identify the company’s internal factors (strengths-weaknesses). Interviews were also conducted with company external parties, including the Puspahiang Agricultural Extension Agency coordinator, Tasikmalaya Regency Food Crops and Horticulture Office staff, the Tasikmalaya Regency Plant Variety Protection Checker head, mangosteen farmers, competitors, and academics to identify factors external company (opportunities-threats). From the results of the interviews, 17 strengths, 14 weaknesses, 12 opportunities and 13 threats were identified in nine elements of the company’s business model.

Of all the indicators of strengths, weaknesses, opportunities, and threats, strategic issues are selected from each indicator. According to categorization theory, strategic issues are higher-level categories that signify important environmental events, trends or developments that will be sought for resolution in the future (Dutton, 1987). This strategic issue was determined by an interview with the director of CV A&H Fruits Group, supported by a secondary study as data validation:

- **Strengths:** Quality of mangosteen competing with other countries (Yudha, 2022); Offering various sizes of Super 1 mangosteen; Strong ties with mangosteen suppliers in several regions in Indonesia; Sorting and grading approved to Chinese government standards.
- **Weaknesses:** The amount of mangosteen supply to customers needs to be maximized; The source of income stops when the mangosteen harvest season is over. The mangosteen harvest in Indonesia occurs from November to April the following year and starts from Sumatra to Nusa Tenggara (Poerwanto, 2013).
- **Opportunities:** High demand from China. Consumption of mangosteen fruit will increase along religious holidays such as Chinese with New Year (Siboro, 2015); High quality typical Indonesian mangosteen varieties. An example is mangosteen which does not have seeds such as the Malinau variety (Santoso et al. 2019); Development of mangosteen R&D and digital technology to improve relations and service processes.
- **Threats:** Mangosteen being susceptible to pests; Mangosteen supply is rare when the harvest season is over; The high number of Covid-19 cases in China has significantly increased logistics costs. The reason for the increase in export-import transportation costs in China was due to the spraying of ship disinfectants and crew health checks (Arifin, 2020).

Formulation of Alternative Business Strategies CV A&H Fruits Group

Predetermined strategic issues are used to formulate alternative business strategies for CV A&H Fruits Group using the SWOT matrix from David (2016). Table 2 shows the five alternative strategies formulated to be applied to the company's BMC as broken down follows.

The strengths-opportunities (SO) strategy is to take advantage of the availability of seedless mangosteens in Indonesia to be exported to new customers and existing customers in China. Based on phylogenetic analysis, among the 12 types of mangosteens in Indonesia, the Malinau mangosteen is the only one that does not have seeds and is thought to be a separate species apart from the mangosteen accessions which are included in the species *G. mangostana L.* (Santoso et al. 2019). Malinau mangosteen is also one of Indonesia's superior varieties originating from the Kalimantan region (Tan et al. 2023). Because it does not have seeds, the Malinau mangosteen has the advantage of having more flesh than other mangosteen varieties (Lestari et al. 2013). This seedless mangosteen only exists in Indonesia, so

it is a great opportunity for companies to offer a new value proposition and increase profits for the company (SO1).

The Strengths-Threats (ST) strategy is by collaborating with several logistics services using the Horizontal Logistic Alliance (ST1). The principle of this collaboration is to adopt flexibility that allows for changes in delivery dates and allows large orders to be split into multiple deliveries. Through this horizontal collaboration, three companies in Belgium achieved a 25,83% reduction in transportation costs (Vanovermeire et al. 2014).

The weaknesses-opportunities (WO) strategy is to expand cooperation with suppliers in other mangosteen centers in Indonesia (Purwakarta, Bogor, and Subang) to increase the scale of mangosteen exports, including suppliers who offer seedless mangosteen, namely farmers in the Malinau, East Kalimantan and North Kalimantan areas (WO1). Cannon and Homburg (2001) state that maintaining communication frequency, various types of supplier accommodation, and geographic proximity can contribute to reducing company costs.

Table 2. Formulation of alternative business strategies for CV A&H Fruits Group

	Strength	Weakness
	<ol style="list-style-type: none"> 1. The quality of mangosteen competes with other countries (VP) 2. Offers various sizes of Super 1 mangosteen (VP) 3. Strong ties with mangosteen suppliers in several areas (KP) 4. Sorting and grading activities according to Chinese Government standards (KA) 	<ol style="list-style-type: none"> 1. The amount of supply of mangosteen to customers has not been maximized (KR) 2. The source of income stops when the mangosteen harvest season is over (RS)
Opportunities	SO Strategy	WO Strategy
<ol style="list-style-type: none"> 1. Demand from China is very high (CSg) 2. Indonesia has various quality typical mangosteen varieties (VP) 3. Development of digital technology and mangosteen R&D to improve relationship and service processes (CR) 	<ol style="list-style-type: none"> 1. Offers seedless mangosteen (S1, S2, S3, S4, O1, O2, O3) 	<ol style="list-style-type: none"> 1. Expand cooperation with suppliers in other mangosteen center areas (W1, W2, O1, O2, O3)
Threats	ST Strategy	WT Strategy
<ol style="list-style-type: none"> 1. Mangosteen is susceptible to plant pests (VP) 2. Mangosteen supply is rare when the harvest season is over (KR) 3. The high number of Covid-19 cases in China has significantly increased logistics costs (CS) 	<ol style="list-style-type: none"> 1. Establish cooperation with logistics services (S1, S2, S3, S4, T1, T2, T3) 	<ol style="list-style-type: none"> 1. Improve service management (W1, W2, T2) 2. Improve warehouse management and product quality (W1, T1, T2, T3)

The weaknesses-threats (WT) strategy can be implemented to improve service management through branding and promoting products (Kastaman, 2020) by providing a website containing important information about the company, products, personal contacts, and others in text, images, and videos. A good website appearance and content will increase the trust of prospective customers in the company and make it easier for them to contact the company. At the same time, other service improvements can be in the form of increased responsiveness of communication performance, timely delivery according to the agreed schedule, and better mangosteen quality (WT1).

The WT2 strategy is to improve warehouse management and product quality. Warehouse management can be in the form of inventory management (inventory) and warehouse space to make storage space efficient in the packing house and reduce costs. Meanwhile, product quality management aims to maintain the quality of the mangosteen so that it remains fresh when it reaches the importer through a series of special treatments, from sorting the mangosteen to packaging. This effort can prevent the rapid decay of the mangosteen and prevent it from plant pests. That's why quality management is one of the main strategies in developing the mangosteen business (Purwandari, 2018).

Implementation of Alternative Strategies and Reformulation in BMC

The resulting five alternative strategies are then applied to CV A&H Fruits Group's BMC elements. Implementing this alternative strategy has implications for changes in BMC elements that must be adjusted. The results of the adjustments, called reformulation of the business model, then form the company's future business model. The image above forms an update or reformulation of the business model reflected in BMC companies in the future (Figure 3).

The customer segment element is impacted by implementing the SO1 strategy on the value proposition element, offering seedless mangosteen. This segment is related with the value proposition element that describes the addition of indicators due to implementing the SO1 strategy, offering seedless mangosteen. This seedless mangosteen is unique and has an excellent opportunity to increase customer satisfaction and attract the attention of potential customers.

The channel element describes a company's channels to reach customers and grow potential customers. This new channel is the website to support implementing the WT1 strategy to improve service management.

Key Partners - Mangosteen farmer groups and collectors (supplier) - Chinese importer (buyer) - Logistics services*	Key Activities - Export of mangosteen fruit (selling) - Procurement of mangosteen from supplier - Sorting and grading (service operations)	Value Propositions - Offering high-quality mangosteen (Grade A) with various sizes requested by the customer - Offers seedless mangosteen*	Customer Relationship - Two-way personal assistance (B2B) **	Customer Segments - Mangosteen fruit importer in China
	Key Resources - HR (labor, employees, suppliers) - Packing house - A set of sorting and grading tools - Basket		Channel - E-mail - Forwarders (logistics) - Direct distribution channel (exporter-forwarder-importer)	
Cost Structure - Purchase of mangosteen fruit - Logistics service fees - Rental fees for website creation and management services*			Revenue Stream - Mangosteen export sales to China	
- Investment costs - Operational costs				

Figure 3. CV A&H Fruits Group Future Business Model Canvas (* New aspect; ** Improved aspect)

The customer relationship element describes two-way personal assistance (personal assistance) that needs to be improved for customers due to implementing the WT1 strategy (improving service management). Improving personal service to customers is carried out as an effort to maintain and increase customer satisfaction and trust through particular interpersonal interactions (human interaction).

The revenue streams element describes the company's income sources that have increased due to implementing the SO1 strategy on the value proposition element. Implementing the SO1 strategy (offering seedless mangosteen), will impact increasing the company's source of income because this unique mangosteen can have a higher price than mangosteen with seeds.

The key resources element describes the number of mangosteen suppliers that has increased due to implementing the WO1 strategy on the key partnership element. Expanding cooperation with suppliers in other mangosteen centers in Indonesia has implications for increasing the number of mangosteen supplies for export. The WO1 strategy can also support the implementation of the SO1 strategy on value proposition elements by adding new suppliers (seedless mangosteen suppliers).

The key activities element describes an increase in all aspects of this element. First, the export activity increase occurred due to implementing the SO1 strategy of exporting seedless mangosteen. Then, procurement activities for mangosteen from farmer groups and collectors and sorting and grading activities also increased as a result of implementing the WT2 strategy (improving warehouse management) including packing house and product quality.

The key partnerships element describes the collaboration that must be increased and expanded with suppliers, importers, and logistics services. In order to support the implementation of the WO1 and SO1 strategies, companies need to expand their partnerships with farmers and mangosteen collectors throughout Indonesia, including with seedless mangosteen suppliers. Meanwhile, cooperation with importers will ensure sustainable demand for the seedless mangosteen fruit. Meanwhile, partnering with logistics services (forwarders) is carried out to minimize high transportation costs and ensure product delivery can be carried out on time according to the target.

The cost structure element illustrates a new cost aspect: renting website creation and management services. Costs are created due to implementing the WT1 strategy on the customer relationships element, namely improving service management in the form of website creation.

Managerial Implications

The results of the business model reformulation (Figure 3) focus on increasing the value proposition in the form of offering seedless mangosteen, which can open new markets. Expanding new markets means attracting new consumers so that the company does not depend on only one customer. To support this reformulation, management needs to establish collaborations with suppliers in mangosteen producing areas, such as mangosteen suppliers in the East Kalimantan region as seedless mangosteen producers (Malinau mangosteen). Companies can also collaborate with universities and/or governments that have access or provide seedless mangosteen (such as IPB University which has conducted research) or buy seedless mangosteen seeds which are widely sold on e-commerce if companies want to start cultivating them.

This business model reformulation may increase certain costs, such as transportation and capital costs for purchasing seedless mangosteen, which may have a higher price than mangosteen with seeds. Therefore, management needs to reduce operational costs as effectively as possible, for example, by maximizing the use of technology and warehouse management, maintaining collaboration with suppliers and logistic service, as well as thorough marketing planning.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The business model currently being run by CV A&H Fruits Group (current BMC CV) shows that the company sells Super 1 (Grade A) quality mangosteen to mangosteen importers in China (B2B). The company's main activities are exporting mangosteen to China, supplying mangosteen for export, and a series of sorting and grading processes that follow Chinese government standards. CV A&H Fruits Group obtains mangosteen fruit from collectors and farmer groups in the Puspahiang, West Sumatera, Bogor, and Sukabumi

areas. In distributing mangosteen to China, the company uses land, sea, and air logistics rental services or also known as forwarders.

From the results of analyzing internal and external factors in nine elements of the business model: 17 strengths, 14 weaknesses, 12 opportunities and 13 threats were identified. Of all the indicators of strengths, weaknesses, opportunities, and threats, strategic issues are selected. There were 4 strengths, 2 weaknesses, 3 opportunities, and 3 threats stated as strategic issues.

Strategic issues are used to formulate alternative business strategies for CV A&H Fruits Group using the SWOT matrix. There were five alternative business strategy such as offers seedless mangosteen (SO1), establish cooperation with logistic services (ST1), expand cooperation with suppliers in other mangosteen center areas (WO1), improve service management (WT1), and improve warehouse management and product quality (WT2).

After implementing five business strategy alternatives to the BMC elements of CV A&H Fruits Group, the results of the reformulation of the company's business model were formed, which were reflected in its future BMC. CV A&H Fruits Group's business strategy, reflected in the company's future business model, focuses on increasing elements of the value proposition by offering seedless mangosteens, improving services to prospective customers and existing customers, and carrying out activities that minimize costs. Activities that can minimize these costs are included in cooperation and warehouse management.

Recommendations

CV A&H Fruits Group can use the business model (future BMC) that researchers analyzed and formed as a benchmark for carrying out further mangosteen export business strategies. The future companies can only use BMC to carry out a strategy to export mangosteen fruit to importers in China. Even though Indonesian mangosteen already has competitiveness in the global market, the government's role is still very much needed to improve mangosteen export policies such as price incentives (Muslim et al. 2011) and government assistance in market research and technology support (Safitri et al. 2020).

To get a better gap between the internal and external environment in BMC analysis studies, companies and researchers can conduct an external environment analysis proposed by Osterwalder and Pigneur (2010). The analysis includes four components of analysis including (1) market forces, (2) industrial forces, (3) key trends, and (4) macroeconomic forces. These four components can help SWOT analysis become sharper and more profound.

REFERENCES

- Arifin MD. 2020. *Impacts of Coronavirus Covid-19 on The Global Shipping and Maritime Industry In Indonesia and How To Overcome The Coronavirus Outbreak Based on WHO and IMO Recommendations*. Jakarta: Jurusan Teknik Sistem Perkapalan, Fakultas Teknologi Kelautan, Universitas Darma Persada.
- Azahari DH, Sinuraya JF, Rachmawati RR. 2020. *Daya Tahan Sawit Indonesia pada Era Pandemi Covid-19*. Suryana A, Rusastra IW, Sudaryanto T, Pasaribu SM, editor. Jakarta: IAARD PRESS.
- Azizah N. 2018. Analisis faktor-faktor yang mempengaruhi volume ekspor manggis Indonesia [skripsi]. Jakarta: Universitas Islam Negeri Syarif Hidayatullah.
- [BPS] Badan Pusat Statistik. 2019. *Statistik Hortikultura*. Jakarta: Subdirektorat Statistik Hortikultura.
- Cannon JP, Homburg C. 2001. Buyer-supplier relationships and customer firm cost. *Journal of Marketing* 65(10):29–43. <https://doi.org/10.1509/jmkg.65.1.29.18136>
- David FR. 2016. *Strategic Management Concept and Cases 16th edition*. England: Pearson.
- [DJHKP] Direktorat Jenderal Hortikultura Kementerian Pertanian. 2019. *Rencana Strategis Direktorat Jenderal Hortikultura Tahun 2020-2024*. Jakarta: Direktorat Jenderal Hortikultura Kementerian Pertanian.
- Dudin MN, Lyasnikov NV, Leont'eva LS, Reshetov KJ, Sidorenko VN. 2015. Business model canvas as a basis for the competitive advantage of enterprise structures in the industrial agriculture. *Biosciences Biotechnology Research Asia* 12(1):887–894. <https://doi.org/10.13005/bbra/1736>
- Dutton JE, Jackson SE. 1987. Categorizing strategic issues: links to organizational action. *Academy*

- of Management Review* 12(1): 76–90. <https://doi.org/10.2307/257995>
- Fritscher B, Pigneur Y. 2014. Visualizing business model evolution with the business model canvas: concept and tool. *IEEE 16th Conference on Business Informatics*. <https://doi.org/10.1109/CBI.2014.9>
- Kastaman R, Thoriq A. 2020. Prioritas strategi pengembangan agroindustri manggis di Kabupaten Tasikmalaya, Jawa Barat. *Jurnal Agrikultura* 31(3):228–241. <https://doi.org/10.24198/agrikultura.v31i3.30525>
- Lestari EG, Suhartanto MR, Kurniawati A, Rahayu S. 2013. Multiple shoot initiation of malinau mangosteen through in vitro culture for clonal propagation. *Jurnal Agronomi Indonesia* 41(1):40–46.
- Muhammad AA et al. 2020. A Review on Medicinal Properties of Mangosteen (*Garcinia mangostana L.*). *Research Journal of Pharmacy and Technology* 13(2): 974–982. <https://doi.org/10.5958/0974-360X.2020.00182.1>
- Muminova SI, Prabawani B, Wijayanto A. 2023. Innovative strategies for the development of business model canvas in coconut charcoal export companies: A case study of Yogyakarta. *World Journal of Advanced Research and Reviews* 18(03):127–139.
- Muslim C, Nurasa T. 2011. Daya saing komoditas promosi ekspor manggis, sistem pemasaran dan kemantapannya di dalam negeri (studi kasus di Kabupaten Purwakarta, Jawa Barat). *Jurnal Agro Ekonomi* 29(1):87–111. <https://doi.org/10.21082/jae.v29n1.2011.87-111>
- Mustaniroh SA, Prabaningias N, Citraresmi ADP. 2020. Analysis of business development strategies with business model canvas approach. *International Conference of Sustainability Agriculture and Biosystem* 515 (2020): 012075. <https://doi.org/10.1088/1755-1315/515/1/012075>
- Osterwalder A, Pigneur Y. 2010. *Business Model Generation*. New Jersey: John Wiley & Sons, Inc.
- Poerwanto R, Susila AD. 2013. *Teknologi Hortikultura. Seri ke-1*. Bogor: IPB Press.
- Pradipta A, Firdaus M. 2014. Posisi daya saing dan faktor-faktor yang memengaruhi ekspor buah-buahan Indonesia. *Journal of Management & Agribusiness* 11(2):129–143.
- Purwandari H. 2018. Strategi pengembangan agribisnis manggis (*Garcinia Mangostana L*) di Kabupaten Trenggalek Provinsi Jawa Timur. *Magister Agribisnis* 18(2):43–53.
- Rochdiani D, Wiyono SN, Qanti SR. 2023. Agribusiness Development in Mangosteen Production Areas: Transformation of Farmers Group and Association in Rural Area. Di dalam: *The 2nd International Symposium on Durian and Other Tropical Fruits*; 24 May 2023. AIP Conference Proceedings 2616(1).
- Safitri W, Muhyiddin Y, Nur'azkiya L. 2021. Strategi pengembangan usahatani manggis (*Garcinia Mangostana L.*) di Kecamatan Wanayasa Kabupaten Purwakarta. *Jurnal Ilmiah Wahana Pendidikan* 7(8): 259–268.
- Santoso PJ, Mansyah E, Pancoro A. 2019. Klarifikasi keanggotaan manggis 'malinau' dalam spesies *Garcinia Mangostana* menggunakan analisis filogenik. *Jurnal Pertanian Tropik* 6(1):42–48. <https://doi.org/10.32734/jpt.v6i1.3038>
- Siboro I. 2015. Kepentingan Cina Menolak Impor Manggis Indonesia. *JOM FISIP* 2(2):1-15.
- Tan SS, Hastuti COI, Indrawanto C, Amisnaipa A. 2023. Distribution of a local variety of national leading commodities. ISEPROLOCAL 2022-The 3rd International Seminar on Promoting Local Resources for Sustainable Agriculture and Development. <https://doi.org/10.1051/e3sconf/202337304024>
- Vanovermeire C, Sørensen k, Breedam AV, Vannieuwenhuysse B, Verstrepren S. 2014. Horizontal logistics collaboration: decreasing costs through flexibility and an adequate cost allocation strategy. *International Journal of Logistics Research and Applications* 17(4):339–355. <https://doi.org/10.1080/13675567.2013.865719>
- Yudha EP, Nugraha A. 2022. Analisis daya saing buah manggis Indonesia di Negara Thailand, Hong Kong, Dan Malaysia. *Jurnal Agribisnis dan Sosial Ekonomi Pertanian Unpad* 7(1):79–87. <https://doi.org/10.24198/agricore.v7i1.40432>