EVALUATING ORGANIC FARMS' BUSINESS MODELS FOR PROFIT MAXIMIZATION IN LAGUNA, PHILIPPINES

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10.15408/saj.v5i1.44662

ABSTRACT

With the importance of organic agriculture (OA) in providing safer food for the consumers, reliable and harmless production for the farmers and the environment, there is a need for more adopters. In the Philippines, the government provided and implemented various programs to convince farmers to adopt OA. But most of the farmers who have adopted OA are more focused on its health and environmental benefits, forsaking its profit benefits. Advantages must be explored and presented focusing on the most profitable business model. With this, the study aims to create a business model canvas of organic farms in Laguna, Philippines and to help farmers easily and efficiently assess how they will be able to make profit albeit fulfilling a need and catering value to their customers, further persuading more farmers to adopt OA. This qualitative study used Historically Structured Inviting on 36 organic farmers in Laguna, Philippines, mostly small-scale farms. Interviewed and observed at least twice between 2017 to 2023. Upon in-depth interviews, risks in production, marketing, financial, and human resources were identified. Market opportunities were assessed. Business models were analyzed which leads to a creation of a business model canvas of OA in Laguna, Philippines.

Keywords: *organic agriculture; business model canvas; qualitative*

INTRODUCTION

Prior to World War II, like many countries around the world, the prevalent farming practice in the Philippines was natural farming. After WWII, the increasing demand on food led the government to provide farmers with high yielding crop varieties that are very dependent on expensive imported synthetic chemical fertilizers and pesticides. The green revolution became prominent and some stakeholders realized the adverse effects of these synthetic chemicals and started promoting OA. As defined by the International Federation of Organic Agriculture Movements or IFOAM in 2005, organic agriculture is a production system that sustains the health of soils, ecosystems, and people; a farming practice relies on ecological processes, biodiversity, and cycles adapted to local conditions, rather than on the use of inputs that turn out adverse effects. To simplify, OA is a farming system that eliminates and excludes the use of synthetic chemicals, such as fertilizers, pesticides, herbicides, and antibiotics, in both crops and livestock production (Setboonsarng, 2015).

In the Philippines, the Executive Order 481 was the first to promote OA in 2005 and with the combined efforts of different concerned stakeholders, the Organic Agriculture Act of 2010 (RA 10068) was enacted. To further promote OA, the National Organic Agriculture Program (NOAP) was created in 2012, spearheading programs and research on OA. OA practitioners utilized the Farm Tourism Development Act of 2016 (RA No.10816), to further promote and help consumer experience farming activities focusing on OA safeness and health benefits to producers, consumers, and the environment. To further entice the public to consume safe and nutritious produce, Republic Act 11511 amended RA 10068 in 2020 with the introduction of the Participatory Guarantee System (PGS) as an alternative organic certification system. With the various support from the government, most farmers are adopting OA due to its safeness and health benefits to consumers, producers, and the environment, not convinced of the income benefits of OA. These can be supported by the results of research conducted by Aquino (2022), in which all stakeholders participants in Laguna, Philippines most valued the well-being of both farmers and consumers, the environmental safeness, and the income with only less to moderate impact for them. Furthermore, the study of Landicho, et al (2014) stated that farmers shift was attributed to farmers' concern on health and food safety, cheaper inputs, and the preservation of their local agricultural practices. Even with these adopters, the number of farmers

and land devoted to OA are still low and far from the target 5% land of the Department of Agriculture and the NOAP. Willer and Lernoud (2019) reports that in 2017 the area devoted to OA in the Philippines was only 0.17% of the total agricultural land or about 17,156 ha.

Even with the effort of both private and public institutions, the above challenges persists. This is true in Laguna, Philippines where the municipality of Los Baños is located. Los Baños is designated and declared through the Proclamation Order No. 349, s. 2000 as a special science and nature city of the Philippines because it caters to different agricultural institutions like the University of the Philippines Los Baños (formerly known as UP College of Agriculture, the Philippine Rice Research Institute (PhilRice) under the Department of Agriculture, the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) which is one of the sectoral councils under the Department of Science and Technology (DOST), the International Rice Research Institute (IRRI), the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), etc.

In order to increase the number of adopters and make the farm more sustainable, advantages including profit must be explored and presented. Profit varied based on the business model of the enterprise or agribusiness and other activities. In OA, the usual business model that is being used is the B2C or the Business to Consumer, but there is no study on its effectiveness and which one will be more advantageous to farmers. It will be more beneficial to farmers and future adopters if they will be able to explore the whole business model of OA. It will be more efficient and easy to understand if it will be presented in one page using the Business Model Canvas (BMC). BMC was initially proposed by Alexander Osterwalder andYves Pigneur in 2004. It is a single page business material which is a great tool that offers focus, flexibility, and transparency that helps enterprises or businesses to identify strength, weaknesses, and priorities of the company (Kumar, 2015).

With this, the study aims to explore various business models and create a business model canvas of organic farms in Laguna to help farmers and possible adopters to easily and efficiently assess the OA business. Moreover it will help them to make profit while fulfilling a need and continue to cater value to their customers, further persuading more farmers to adopt OA.

METHOD

Study Area

To explore various business models that will lead to the creation of a business model canvas for OA, this qualitative research was conducted in the Province of Laguna, Philippines where most of the participants were from the municipality of Los Baños which is designated and declared through the Proclamation Order No. 349, s. 2000 as a special science and nature city of the Philippines because it caters to different agricultural institutions.

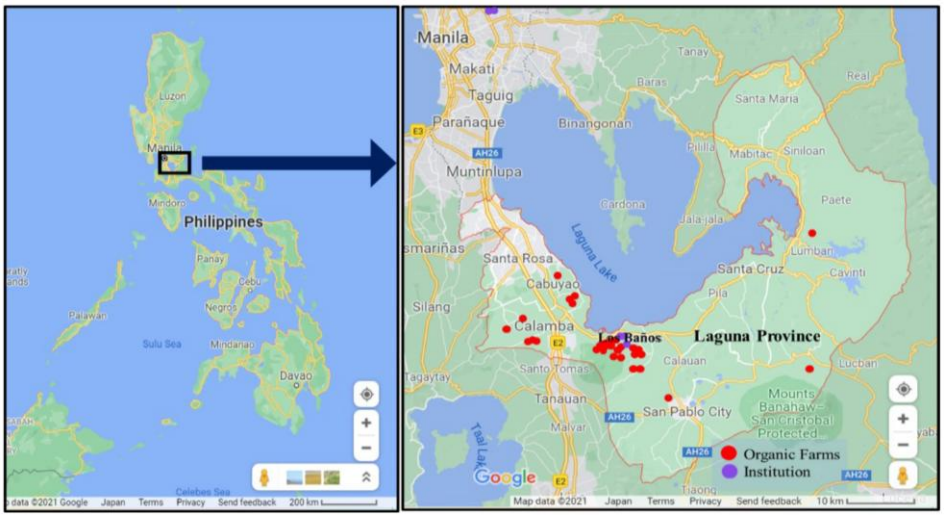

Figure 1. The Philippine map and the Province of Laguna where organic farmers and agricultural institutions are located (Google Maps, 2021)

Data Collection and Analysis

As a qualitative research, primary data were gathered using semi-structured questionnaires, interviews, and observations. It applied data triangulation for validity and reliability which required constant and in-depth interviews, observations, and memoing with different actors and information sources in the community accessed over different periods (days, months, years) from 2017-2023. Reliability was also tested through the test-retest reliability in which repeated interviews, confirming responses over multiple years provided consistency over time. Furthermore, to strengthen the reliability and validity of the research, the study made sure that several farmers reviewed and confirmed the final business model classifications.

The 36 organic farmers were invited as a research participant following the Historically Structured Inviting (HSI) of Valsiner and Sato (2006) and Sato et al. (2007). Data gathered were constantly transcribed, coded, compared, categorized, and analyzed until data saturation. Moreover, respondent verification was done. Information from books, journals, training modules, websites, and other printed materials were also cross referenced.

RESULT AND DISCUSSION

FAO (2015) defines a business model as an integrative or consolidative arrangement of various actors in the agribusiness system, it describes an enterprise on how it does its business from sourcing inputs to marketing its products. With this, the study explored various farm enterprises' business models in Laguna, Philippines.

Farmer-owners' and Farm Businesses' Profiles

The socio-demographic profile of farmer-owners were collected to check on how it affects their decision for their farm business. The 36 farmers were composed of 13 female farmers and 23 male farmers aging from 33-73 years old with an average age of 54.53years old (Table 1). This shows that farmers practicing organic farming are around 3.5 years younger than the average farmers in the Philippines based on the Department of Agriculture (2024) record of 57-59 years average age of Filipino farmers. It also shows that younger farmers are starting to adopt OA. There were no single farmers encountered during the data gathering but five of them were widowed. An average of five household members were noted and most of them were encouraging their children and spouses to practice OA.

Table 1. Distribution of farmer-owners based on their age and sex (n=36)

Age	Below 55	Average age (Young)	55 and up	Average age (old)	Total	Total Average
Sex	No. of young		No. of old			
Male	9	47.56	14	63.38	23	57.77
Female	8	43.63	5	59.80	13	49.85
Total	17	45.71	19	62.42	36	54.53

As per the transcripts (Transcripts 1 and 2), farmers were aware of the safety in production of OA. This result is also the same as the study

conducted by Gamage (2023) in Sri Lanka in which stated that OA provides a safer and healthier work environment for women and children.

Transcript 1: *"It [Organic Agriculture] is safe for me, my children, consumers, and the environment. I am at ease that my children, unlike me when I was their age, now know the importance of organic".*- Farmer 3,4,5,7,8,9,10,11,12,16,18,20,22,24,27,29,32,34,35,36

Transcript 2: "*It [Organic Agriculture] is safe for health, no chemicals, and safe for the family especially for my kids".*- Farmer 7,3,4,5,8,9,10,11,12,13,14,15,16,18,20,27,29,30,32,34,35,36

For educational attainment, it shows (in Table 2) that 66.67% of the respondents graduated High School, including the three non-agriculture college graduates who were convinced of the benefits of OA in economic, ecological, and social dimensions of their lives. There were 11.11% who were in High School level but due to some instances like financial challenges, they were not able to finish High School. The remaining 22.22% were forced to help in their family farms and continue farming as their livelihood. The results are in line with Azam and Banumathi (2015) stating in their study that educational attainment significantly affects farmers' decision to adopt OA.

Table 2. Distribution of farmer-owners based on their educational attainment (n=36)

Educational Attainment	Elementary Graduate	High School Graduate	Vocational Certification	College Graduate	Total
Male (young)	1	7	1		9
Male (old)	5	8		1	14
Female (young)	4	3		1	8
Female (old)	2	2		1	5
Total	12	20	1	3	36

From the surveys and interviews conducted,farm business profiles were gathered. Most of the farms were producing vegetables (lettuce, pechay, eggplant, tomato, cassava, etc) and fruits (pineapple, banana, lanzones, rambutan, etc) and some of them were also growing rice and some incorporating poultry and livestocks (chicken, swine, goat, rabbits,

etc). They were all practicing zero-waste in which garden and kitchen waste were being collected and Organic farms in the study area were mostly small-scale, ranging from 0.01 ha to 3.50 ha with an average farmland of 1.06 ha. This is lower than the most recent recorded average size of farmland in the Philippines which is 1.29 ha (PSA, 2015). An 86.11% of the farms were below the 1.29 ha average and only five out of 36 farms were greater than 1.29 ha which were being utilized for organic farming in the area. With these sizes, the business model also varies.

Business Models Existing in the Study Area

There were two models existing in the study area: the Business to Consumer, and the Business to Business. Some farmers were using a mixture of these two business models and all were using the B2C which shows that organic farming values consumers.

Business to Consumers (B2C)

This is the most common and prevalent type of business model for OA in the Philippines. In Laguna, specifically in Siniloan, Pangil, and Kalayaan, smallholder farmers produce organic vegetables and sell directly to local markets, consumers, and farm-gate buyers. Some supply restaurants and small retailers (Taruma and Sagritalo, 2021). According to Deña (2023), government-supported organic farms offer training, free materials, and organic produce always sells to local residents and small businesses. In the study areas, all organic farmers were using the B2C model with different market channels (Table 3). Some farmers were also using two or more channels to reach their customers. As not all farmers were growing and selling livestock and poultry, only the crop profits were assessed. The crop unit profits of each farmer were computed based on the crops grown and sold. The average crop unit profit of the 20 participants who were only utilizing B2C was Php 7,021.67. The average crop unit profit for farms with less than 1.29 ha was only Php 6,422.55 while the crop unit profit for farms with more than 1.29 ha was Php 10,416.67. There was a 62.19% difference of unit profit This can be attributed to the limitation of varieties of fresh produce the organic farm business can provide due to limited land area as most of them were small-scale.

Table 3. Distribution of organic farms based on their market channel on B2C model and the ranges and ave of crop unit profit

Land size	Own Store/ house	Orders/ Deliveries	Municipal Trading Post	Ranges of Crop Unit Profit (PhP*)	Ave of Crop Unit Profit (PhP*)
< 1.29 ha	6	12	12	P 3,000.00-P16,250.00	P 6, 422.55
>1.29 ha	5	8	3	P 7,000.00- P16,000.00	P10, 416.67
Total	11	20	15	P 3,000.00-P 16,250.00	P 7, 021.67

**1Php=0.0179 USD (Philippine National Bank, December 2023)*

While all the inputs were shouldered by the farmers, B2C is advantageous for them as they can easily get cash and a quite competitive income as most of them sell their produce based on the price set by the market on the conventional commodities (especially for those selling at the Municipal Trading Post, with less input costs. In addition, they can earn while staying at home (Transcript 3). Aside from selling in their small stalls or stores, 20 farmers were receiving orders from their neighbors, friends, and previous colleagues.

Transcript 3: *"It gives me additional income, I can now help my family even if I am at home."* -Farmer 10,1,2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20,23,25,26,28,29,31,32,34,35,36

It also shows that organic farmers were being supported by the local government unit as 15/36 of them were utilizing the Municipal trading post to sell their produce every Tuesday and Friday. In addition, neighbors, friends, and some colleagues from their previous jobs and some parents in their children's schools were ordering fresh vegetables for deliveries or pick-up in their houses. Proof that their communities were also knowledgeable about the benefits of consuming organic produce.

Business to Business (B2B)

The B2B model was used by 16 out of 36 organic farms. Unfortunately, there was no contract growing or contract marketing in the area (Table 4). According to the farmers that were interviewed it was usually spot trading in which their vegetables and fruits were priced a little bit lower than the current market price.

Table 4. Distribution of organic farms based on their market channel on B2B model and the ranges and ave of crop unit profit

Land size	Traders	Other Stores/ Businesses	Total Farms w/ B2B	Ranges of Crop Unit Profit (PhP*)	Ave of Crop Unit Profit (PhP*)
< 1.29 ha	5	2	7	P 2,000.00- P 13,333.33	P 10, 078.57
>1.29 ha	8	1	9	P 5,833.33- P183,142.86	P 27, 636.86
Total	13	3	16	P 2,000.00-P 183,142.86	P 19, 955.11

**1Php=0.0179 USD (Philippine National Bank, December 2023)*

As can be seen in Table 4, the lowest crop unit profit for farmers utilizing B2B with less than 1.29 ha was P2,000. 00 while the farmers with more than 1.29 ha can have at least P5,833.33 crop unit profit. The smaller land can only produce limited yield hence, the smaller the yield the farmers cannot haggle more on the prices, making it less profitable for them as per the interview of the farmer with the lowest crop unit profit in utilizing traders (Transcript 4).

Transcript 4: *"Eh pag maunti, wala naman kaming laban, mas binabarat kami. Kesa hindi maibenta, ipapapakyaw nalang sa mas mababang halaga".* [Eh, when it's less (the harvest and varieties), we cannot argue, they haggle more to lower the price. Instead of not being sold, it will be wholesale at a lower price". -Farmer 11, 3,4,5,6,7,8,9,10,11,12,16,20,22,24,27,29,32,34,35

On the other hand, the farm that could produce more has an advantage to penetrate bigger markets like supermarkets, hotels, and restaurants, which also give them higher profits as they can haggle for a higher price. Furthermore, these farmers have two or more markets or channels in which they can sell their products giving them options. With the data above, it shows that for OA, it is better to have at least two business models or marketing channels, as the difference could be 57% of the average crop unit profit for those with less than 1.29 ha land and about 165% of the average crop unit profit for those with more than 1.29 ha land.

The Business Model Canvas of Organic Farm Enterprises in Laguna

Based on the categorization of the organic farm enterprises in the study area, there were four Business Model Canvas (BMC) created. These are (1)those with the land area of less than 1.29 ha and utilizing only the B2C business model, (2) with the land area of more than 2.29 ha and utilizing only B2C, (3) the second with the land area of less than 1.29 ha

and also utilizing B2B, (4) with the land area of more than 2.29 ha and also utilizing B2B. The four BMC have the same value proposition which focus mainly on the benefits of organic produce as safe and nutritious products. In addition, it provides emotional benefits for the consumers as they know that the products are safe for them, for the farmers, and the environment as it were grown without synthetic chemicals. Same activities for all as organic farm enterprises were practicing organic production standard operations. The four BMCs are also the same with the basic customer segments in which they all cater local populations, health-conscious buyers, and the environmentalists.Which led to a great customer relationships creating "*suki"*- in which both sellers and buyers built trust and loyalty with one another that even without a certification, buyers believe that the products were grown in organic farming ways.

<table>
<tr>
<td rowspan="2"><u>Partnerships</u>
Family members, Neighbors, other farmers, Local Government Units (LGUs)</td>
<td><u>Activities</u>
Traditional vegetable and fruit production, zero-waste production; composting; use natural fertilizer, pest & diseases control</td>
<td rowspan="2"><u>Value Proposition</u>
Safe and nutritious food for the consumers; Safe for the farmers and the environment; no synthetic chemicals; emotional benefits, reduction of pollution and waste; zero-waste farming</td>
<td><u>Relationships</u>
"suki"- a system of trust and loyalty between consumer and farmers</td>
<td rowspan="2"><u>Customer Segments</u>
Local population, neighbors, health-conscious individuals, environmentalists</td>
</tr>
<tr>
<td><u>Resources</u>
seeds from LGUs; compost from kitchen and farm wastes; spring water; livestock and poultry; mobile phone; motorcycle and fuel</td>
<td><u>Channels</u>
Word-of-mouth; Mobile Phone (text and call); Motorcycle; Public Transportation; Own shops; Municipal Trading Posts</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>
Seeds are mostly free or subsidized; some seeds are from mother plant (for sustainability); water cost less or free from the spring, fertilizers and pesticides are being made in the farm utilizing farm and kitchen wastes; fuel; higher man day</td>
<td colspan="2"><u>Revenue Streams*</u>
The minimum profit from crops is P 3,000.00/ month and can be up to P16,250.0/ month. With an average of P 6, 422.55/ month crop unit profit.</td>
</tr>
</table>

Figure 2. BMC of those with the land area of less than 1.29 ha and utilizing only the B2C business model (**1Php=0.0179 USD (Philippine National Bank, December 2023)*

Figure 2 shows that farm enterprises belonging in this group, have a smaller number of partnerships mainly from neighboring farms and the Municipal Agriculture Office (in their designated LGUs) which also

provided them free and subsidized seeds, the water from the spring or other natural water source, and the composting made it possible to reduce cost of production. In terms of packaging, these farm enterprises use banana leaf, old newspaper, or recycled plastic bags with no additional costs. They utilized mobile phones to call and text their suki for the availability of their products and to take orders. Those who received seed subsidies were encouraged to sell their produce in the Municipal trading posts but the prices should not be higher than the conventional produced in the market.

<table>
<tr>
<td rowspan="2"><u>Partnerships</u>
Family members, Neighbors, other farmers, Local Government Units (LGUs); Seeds company</td>
<td><u>Activities</u>
Mostly organic vegetable and fruit production; livestock and poultry raising; zero-waste production; composting; use natural fertilizer and pest & diseases control</td>
<td rowspan="2"><u>Value Proposition</u>
Safe and nutritious food for the consumers; Safe for the farmers and the environment; no synthetic chemicals; emotional benefits, reduction of pollution and waste; zero-waste farming</td>
<td><u>Relationships</u>
“suki”- a system of trust and loyalty between consumer and farmers</td>
<td rowspan="2"><u>Customer Segments</u>
Local population, health-conscious individuals, environmentalists</td>
</tr>
<tr>
<td><u>Resources</u>
seeds from the Gov’t; and seed company; compost from kitchen and farm wastes; spring water; livestock and poultry; mobile phone; vehicles and fuel</td>
<td><u>Channels</u>
Word-of-mouth; Mobile Phones (text and call); Own shops; Municipal Trading Posts; Motorcycle; Tricycle; 4-wheel vehicle; Public Transportation</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>
Less cost for seeds because some are subsidized; some are from mother plant (for sustainability); water cost less, some from the spring, fertilizers and pesticides are being made in the farm utilizing farm and kitchen wastes; higher man day and labor costs</td>
<td colspan="2"><u>Revenue Streams*</u>
The minimum profit from crops is P 7,000.00/ month and can be up to P16,000.00/ month. With an average of P 10, 416.67/ month crp unit profit. Livestock can provide additional income.</td>
</tr>
</table>

Figure 3. BMC of those with the land area of more than 1.29 ha and utilizing only the B2C business model (**1Php=0.0179 USD (Philippine National Bank, December 2023)*

The second BMC (Figure 3) shows that they were not getting seeds as per the interview in some areas in Laguna, those with only less than 1.5ha received free seeds. This added costs for their production, some of them were able to get a subsidy on seeds but with only 50% maximum. With these they were forced to buy their own seeds which added varieties

in their produce making it advantageous for them when competing with other organic sellers.

The third BMC (Figure 4) has traders as their partners and customer segments as they are utilizing also the B2B model. The cost structure is the same as the BMC1, but it is notable that the revenue stream is lower. This is due to the low negotiating power of the farmers as they cannot provide the demand quantity and quality of traders. On the other hand, comparing the average crop unit profit of BMC1 (P6,422.55/ month) with the BMC3, it shows that BMC3 has a higher revenue stream with P10,078.57/ month.

<table>
<tr>
<td rowspan="2"><u>Partnerships</u>
Family members, Neighbors, other farmers, Local Government Units (LGUs); Seeds companies; Traders; Department of Agriculture; nearby communities</td>
<td><u>Activities</u>
Mostly organic vegetable and fruit production; livestock and poultry raising; zero-waste production; composting; use natural fertilizer and pest & diseases control</td>
<td rowspan="2"><u>Value Proposition</u>
Safe and nutritious food for the consumers; Safe for the farmers and the environment; no synthetic chemicals; emotional benefits, reduction of pollution and waste; zero-waste farming</td>
<td><u>Relationships</u>
"suki"- a system of trust and loyalty between consumer and farmers;</td>
<td rowspan="2"><u>Customer Segments</u>
Local population, health-conscious individuals, traders, other shops and restaurants, environmentalists</td>
</tr>
<tr>
<td><u>Resources</u>
seeds from LGUs; seeds from the Gov't; and seed company; compost from kitchen and farm wastes; spring; water; livestock and poultry; mobile phone; vehicle and fuel</td>
<td><u>Channels</u>
Word-of-mouth; Mobile Phones (text and call); Own shops; Municipal Trading Posts; Motorcycle; Public Transportation; truck; traders</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>
Seeds are mostly free or subsidized; some are from mother plants (for sustainability); water cost less or free from the spring, fertilizers and pesticides are being made in the farm utilizing farm and kitchen wastes; higher man day; fuel cost for some.</td>
<td colspan="2"><u>Revenue Streams*</u>
The minimum profit from crops is P 2,000.00/ month and can be up to P13,333.33/ month. With an average of P 10, 078.57/ month crop unit profit. Livestock can provide additional income.</td>
</tr>
</table>

Figure 4. BMC of those with the land area of less than 1.29 ha and also utilizing the B2B business model (**1Php=0.0179 USD (Philippine National Bank, December 2023)*

This means that the third BMC can be maximized by helping small scale farmers to create a cluster and plan their production. With this, the negotiation power of the cluster will be stronger and the prices will be more competitive. It is also advantageous of having another market

channel as it will give them more options and a probable high profit margin.

The fourth BMC (Figure 5) shows that it has more customer segments including hotel and restaurants, and more partners too. The resources included manpower in which it adds to the cost structure.

<table>
<tr>
<td rowspan="2"><u>Partnerships</u>
Family members, Neighbors, other farmers, Local Government Units (LGUs); Seed Companies; Supermarkets; Hotel and Restaurants; Traders; Department of Agriculture; nearby farms and communities</td>
<td><u>Activities</u>
Mostly organic vegetable and fruit production, livestock and poultry raising; zero-waste production, composting, natural fertilizer and pest & diseases control</td>
<td rowspan="2"><u>Value Proposition</u>
Safe and nutritious food for the consumers; Safe for the farmers and the environment; no synthetic chemicals; emotional benefits, reduction of pollution and waste; zero-waste farming; pick and pay; farm experience; educational tour; training on organic production</td>
<td><u>Relationships</u>
"suki"- a system of trust and loyalty between consumer and farmers; other business owners' trust;</td>
<td rowspan="2"><u>Customer Segments</u>
Local population, health-conscious individuals, environmentalists; Hotel and Restaurants; supermarket; retailers/ resellers</td>
</tr>
<tr>
<td><u>Resources</u>
seeds from the Gov't; and seed company; african night crawler; compost from kitchen and farm wastes; spring water; livestock and poultry; man power; mobile phone; internet; computer; vehicle & fuel</td>
<td><u>Channels</u>
Word-of-mouth; Mobile Phone (text and call); Social Media; Magazines; Own shops; Municipal Trading Posts; Delivery trucks; Traders, retailers, hotel & restaurants, supermarkets, trade fairs,</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>
Less cost for seeds because some are subsidized; some are from mother plant (for sustainability); water cost less- some from the spring, fertilizers and pesticides are being made in the farm utilizing farm and kitchen wastes; higher man day and cost of labor</td>
<td colspan="2"><u>Revenue Streams*</u>
The minimum profit from crops is P 5,833.33/ month and can be up to P183,142.86/ month. With an average of P 27, 636.86/ month crop unit profit. Livestock and poultry can provide additional income.</td>
</tr>
</table>

Figure 5. BMC of those with the land area of more than 1.29 ha and also utilizing the B2B business model (**1Php=0.0179 USD (Philippine National Bank, December 2023)*

Like the BMC2, not all farm enterprises here received subsidies from the government as their lands were more than 1.5 ha. In addition, marketing their products to a much larger population requires them laptops and internet. As these enterprises were utilizing social media and trade fairs as their market channel aside from the common channels like word-of-mouth, text and call to their suki, physical stores, trading post,

and traders as some. With these varied options for their market channels, an organic farm enterprise was able to get a maximum of P183,142.86/ month. This shows that if you have land more than 1.29 ha, it will be more profitable to utilize various marketing channels. Furthermore, farm enterprises with a land area more than 1.2 ha can maximize their sales by categorizing their produce into different classes (Class A- as superior, Class B- good, Class C- acceptable) based on their quality. Farm enterprises can sell the superior quality to high end stores/ clients with higher prices, the good ones can be sold to fair trades, and traders; the acceptable ones to their stores and or neighbors. The produce with the quality lower than the acceptable can be for home consumption or for the vermicompost to make sure that there will be no waste.

Furthermore, this model utilized the farm-tourism offering additional value propositions such as emotional benefits, reduction of pollution and waste; zero-waste farming; pick and pay; farm experience; educational tour; training on organic production providing diversified revenue streams aiding the business to earn more profit. This is the same as the study conducted by Mahbubi et al (2025) in which the ecotourism business model created a diversified revenue stream including the snack and souvenir sales from processed crab products, educational tour, experiential and hands-on engagement in which visitors can experience crab processing.

All the four BMCs presented will help farmers to decide on what kind of business model to adopt based on their land areas. In addition, these BMCs show that the support from the government is very important and useful especially to small scale farmers who cannot pay additional cost for their labors. On the other hand, small scale farmers cannot set their price higher because of the subsidies they were receiving. These BMCs can also help new farmers (directly or through extension providers) to plan ahead on their target customers and on whom to partner to make it strategic and advantageous for them.

CONCLUSION AND SUGGESTIONS

Conclusion

It shows that in Laguna, organic farm owners were younger and educated than the conventional farmers. It can be noted also that farmer owners were valuing OA safety production through encouraging their family members to practice OA. There were two business models present

in the study area- the B2C which is common and the B2B mainly selling to traders. The B2C model is advantageous for farm enterprises with a smaller land area (less than 1.29 ha) as they can earn more profit than selling to traders in a B2B model due to their low negotiating power, however if they do clustering, they will be able to earn better as they can increase their negotiating power. On the other hand, the BMC consists of those who own larger land (more than 1.29 ha) and utilize both B2C and B2B models, earning more as they utilize farm-tourism as an additional revenue stream.

Suggestion

If the B2B model will be utilized by small scale farmers, it is recommended for them to form a cluster in which they can have a higher negotiating power than selling alone. For the organic farm enterprises with more than 1.2 ha land, the B2B is more advantageous as they can demand a higher price for their products. Moreover, the diversification of the revenue stream will help farmers to increase their profit through simple experiential farm activities like pick and pay, zero-waste farming, and training on organic production.

Acknowledgment

The authors would like to acknowledge the warm and sincere cooperation of the 36 organic farmers, their families, and all stakeholders involved in the research. Moreover, this research is partially funded by the Tokyo NODAI Graduate School Doctoral Program Research Support System, the Foundation for Dietary Scientific Research, and the JST SPRING. The researchers would also like to extend our appreciation to Dr. Satoshi Suzuki, Dr. Rie Miyaura, and the rest of the professors from the Department of Agribusiness Management of Tokyo NODAI. Also, we would like to acknowledge the assistance and comments from Prof. Cris Edwin B. Bonalos, Prof. Jennica Amielle M. Mora, Prof. Reginald B. Vargas, Prof. Rei Chino C. Pua, Ma'am Camille Anne E. Mendoza, and all the individuals who directly and indirectly extended support to this research.

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