

ECONOMIC ASPECTS OF JBT AGRIFARM: BASIS FOR PROPOSED ACTION PLAN

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Abstract. Agri-tourism sector has contributed to the industry's progressive state. The attainments of the study were rooted in the concept of impact analysis under economic aspect. It determines the significance of each effect and used it as a basis for enhancement in the economic state of JBT Agri-farm in Amadeo, Cavite, with the aspects of direct, indirect, and induced impacts of the concept used for the study's objectives. The data from 255 respondents from 3 different nearby communities in the Agri-farm were obtained through adapted questionnaires from the previous and past study. The study used descriptive method in determining the demographic characteristics of the respondents. In addition to it, the study proposed an economic action plan under the concept of impact analysis. It also used quantitative method and simple random sampling in the selection of respondents aided by ANOVA and T-test for the statistical processes of the results. The results indicated that all the sub-aspects of impact analysis were evident if impacts were measured toward the assessed effects. To further enhance the level of impact of the subject, it will then undergo an effective plan of action that the proponents have specifically crafted for JBT Agri-farm.

Keywords: *agri-tourism, impact analysis, direct impact, indirect impact, induced effects*

Introduction

Nowadays, the continual growth of agritourism has caused various economic problems to the operators of Agri-farms that may contribute to the fluctuating status of sales and revenue, seasonal job availability for farmers and funding for the maintenance of the farm (Sophy, 2021). This is timely happening in the Philippines, particularly in Amadeo, as it is known for massive farming and rich agricultural land that stands as the main source of their living (SEARCA, 2019). Agri-tourism, the combination of both agriculture and tourism, opens new opportunities in terms of a potential increase in revenue, at the same time, could produce problems and legal complications to the management (The National Agricultural Law Center, 2022). The assessed problems revolve around business operation, employment opportunities, and increase in profit and product development, which are factors that fall under economic aspect (Ahmed, 2019), paved the idea of focusing on the economic aspect only. There has been interrelatedness between economy and business. Its linkages were evidently seen as business falls under economy and the current study projects complications that hinder the Agri-farm to further develop its profit, revenue, and open opportunities across its community in terms of contributing factors with their living (Hagney, 2017).

With this interesting line of study, proponents have willingly and safely visited a few neighboring Agri-farms in Amadeo, since it is a good representation when it comes to farming and healthy plantations due to its well-sustained soils (Province of Cavite, 2022). Proponents have made ocular visits to assess the farm that is in most need of an action plan, particularly of economic plan. Upon careful assessment, researchers have

seen that JBT Agri-farm has the most potential but has a low developmental status compared with the other nearby farms in Amadeo. In terms of funding of projects and visions for the development of Agri-farm, the situation of each employee that encounters seasonal offers of harvesting and inconsistent figures of sales and revenues, affect the overall profit of the farm. Since farming is the common job in this area (Province of Cavite, 2022), proponents aim to boost the purpose of the actual job as an aid for those communities whose primary source of income is farming in response to the possible challenges that might interfere the growth of their agricultural businesses. Moreover, the purpose of the study is to fully introduce all the facet of Agri-tourism farms to amplify and encourage more future researchers to discover more of the field.

To gradually support the current study, there are certain existing studies both international and local that possess good quality of knowledge that could further aid the direction of the study's objective. As cited in the study of Schilling et al. (2012) which the study highlighted, the economic benefits of Agritourism in New Jersey and open facets could help boost the income and maximize all the resources that the farm had possessed as an asset of development which is an intense contribution for the current researchers' study. The study emphasizes the benefits that the small business farms (agritourism) could ask from the state. The case study stated that urbanization had mainly affected the industry in both directions. Having an advantage primarily pertains to growing popularity of the industry that is continually rising and people who are interested begin to seek for rural life. While the disadvantages are commonly in terms of low income, low progress status, and low in state participation due to lack of investments and interest by the proprietors (Schilling et al., 2012) that cause a slow developmental process for those mentioned farms in New Jersey. As cited in the study of Esguerra (2020) stated that here in the Philippines it has the same method and output with the current study. The study was simply crafted to design a development plan for the wholeness of all agritourism businesses in Central Luzon. In contrast with the first mentioned study, it focuses on the status while the others target the benefits. This study signifies that in handling Agri-farm businesses there are several inevitable problems that operators could not stop from happening such as the price and income fluctuation, insufficient staff and fund to keep the farm operating (Esguerra, 2020). Both studies were significant, for these tackle businesses that are synonymous with the economic aspect of the farm that could provide adequate help for the current study's vision.

Initially, the town was established as a sitio (Amadeo) in Silang, Cavite's first municipality (Province of Cavite, 2022). Gov. Gen. Rafael de Izquierdo founded Sitio Masilaw as a town on June 12, 1872 and renamed it Amadeo in honor of Amadeo I's Prince. The researchers selected Amadeo, Cavite for it is known for having a large farming area and a good representation of agricultural land for their healthy soil. The municipality of Amadeo has a total land area of 4790 hectares, and most of the residents earn their living through farming (Province of Cavite, 2022). JBT Agri-farm, also known as Tanimanni Jesus, has a farmland area of two (2) hectares. It is privately owned by Corazon and Jesus Tibayan. As per the owner, agriculture has been the primary source of income in their family. Since then, the owner decided to extend their farm into Agri-tourism which has been in service since 2018.

The study's objective is to propose an economic management plan for the operators to smartly steer their resources to formally craft a special plan of action on each assessed lacking after data collection. The study uses the concept of economic impacts of tourism which consists of sub-variable impacts particularly pertains to as the direct,

indirect and induced effects as a pattern for systematically assessing lack of the Agri-farm; This concept basically determines the status of linkage between tourism activity and the local economy which is a recommendable foundation to further attain the study's objective. Direct impacts primarily mean the GDP (Gross Domestic Product sum of the totality of all the products and services consumed) that is directly acquired from a tourism sector such as hotels, travel agency, and many more (Fernando, 2022). Indirect impacts pertain to the subsequent process and/or secondary variables that are needed during the operation (Fernando, 2022). The induced effect, on the other hand, is the income generated from both direct and indirect that could contribute to the local economy (Fernando, 2022). Since the study was focused on the economic aspect, these impacts can fully help in the study that revolves around generated sales, supplies and income that can commonly be cited in the aspect of the economy.

The economic management plan extracted from the results of all the assessments under the economic aspect and those legally based under the Farm Tourism Development Act of 2016, or R.A.10816. This was enacted into law, establishing guidelines to sustainable farm practices, and expanding farm tourism, or agritourism, in the Philippines (Republic Act. 10816, Sec. 2) with the help of the Farm Tourism Strategic Action Plan (Republic Act. 10816, Sec. 4). The mentioned enacted law is based on formulating a sustainable management plan for this. To avoid confusion and discrepancy, researchers will associate Republic Act 7607: Empowering Small hold Farmers in their Economic Endeavors that has a statement under as the "Magna Carta for Small Farmers" (Republic Act 7607: Empowering Small hold Farmers in their Economic Endeavors) which the law emphasizes that this industry is one of the drivers in boosting up local economy and most vulnerable in unexpected impacts, so certain action must be followed to strengthen their significant contributions in attaining both economic and sustainable development (Republic Act 7607: Empowering Small hold Farmers in their Economic Endeavors). With all the help of these existing support details, opponents will proceed on pursuing the research objectives.

The specific objectives of this research are: (1) to identify the demographic characteristics of the respondents, particularly in gender, age, place and years of residency, and highest educational attainment; (2) to determine the economic aspect of JBT Agri-farm in terms of direct, indirect, and induced effects; (3) to ascertain the significant difference of the respondents' assessments when classified according to their characteristics; and (4) to propose an economic management plan to further develop the economic aspect of JBT Agri-farm.

The study is significant to the farm owners, employees, and the immediate community in terms of gaining in-depth knowledge about the farm's economic status and introduces the impacts to fully understand the logical process of the nature of their job, since the majority of the residents earn their living through farming. This is also beneficial to the researchers in terms of deepening their understanding about the farm's economic impacts and sustainability. The study will help many agricultural businesses by extending the farm's existence and enhancing economic development plans in the future. The study's focus is limited on the economic aspect of the farm which was based on the economic impact of tourism based on the sub impacts of direct, indirect, and induced effects as the concept of the study which was based on the study of Movido et al. (2021).

Literature review and conceptual/theoretical framework

As stated in the study “Tourism Demand and Agriculture Supply: Basis for Agritourism Development in Quezon Province” by Lago (2017), this study expounds the linkages between agriculture and tourism in determining the two involved aspect in economic status which refers to as the supply and demand. Through which it identifies the significant differences and relationship of both involved aspects. The study used a quantitative method with a self-acquired questionnaire. The study proved that the two aspects were relatively strong, and the demographic profile of the respondents vigorously played an important role in the results of the study for the reason that it indicated that educational attainment affects farmers in terms of civil status, income, and their agricultural supply. The research recommended further education to the farmers in order to boost agritourism in Quezon Province. As cited in the study of Esguerra (2020) titled “Status of Agri-tourism Business in Central Luzon, Philippines: Basis for Development Plan,” it aimed to describe the farmer’s profile in terms of business ventures in Agri-tourism and conduct a more thorough analysis of their business operations and good practices to observe during conflicts in businesses. The study used a purposive sampling technique with two methods of data gathering, interviews and surveys questionnaires. The study proved that labor shortage, price fluctuation, seasonal farm products, under-trained staff, and large capital requirements are the main factors that farmers have faced in establishing their agricultural businesses.

In the study titled “Analyses of the Attitudes of Agricultural Holdings on the Development of Agritourism and the Impacts on the Economy, Society and Environment of Serbia” by Ćirić et al. (2021), agritourism helped underdeveloped places through attracting the attention of tourists who have a greater interest in natural things. It also aimed to ascertain the attitudes of farm owners in the Republic of Serbia in determining the progress of agritourism in such aspects of the economic, living environment, social life, and culture (Ćirić et al., 2021). The researchers used quantitative methods through the use of questionnaires and random sampling methods in the selection of respondents. The study strongly showed that all the obtained data express positive attitudes toward economic effects on agritourism and prove that the economic side of the study benefits the community through employment, investment, and promotion of local agricultural products. In the study “Approaches to Estimation the Farm-Level Economic Viability and Sustainability in Agriculture: A Literature Review” by Spicka et al. (2019), it aimed to redesign its Common Agricultural Policy in making the status of the farm more economically viable and sustainable. The study used existing literature reviews to strengthen the study’s objective. After summarization and comparison of 51 studies, this study proved that farms need to have stable income support, especially in the areas with natural constraints to optimally improve and grow as a source for each proprietor (Spicka et al., 2019).

The study titled “Perceived Impact of Agritourism on Farm Economic Standing, Sales and Profits” by Barbieri and Tew (2016), identified the economic performance of Agritourism in Missouri and examined the perceived gains of this tourism sector in the development of each farm. The study used quantitative method and questionnaires as their tool. The study proved that Agritourism has a beneficial effect on farm profitability although the negative association between employment off-farm and the ones that practice farming requires a considerable investment of labor and time (Barbieri and Tew, 2016). “Agritourism as a Local Economic Development Tool for Rural Hill Regions” by Shah et al. (2020) is a study that had identified the challenges in terms of development, sustaining livelihood, and standard of living in rural areas using

Agritourism. It used exploratory analysis with existing literature. The study proved that enhancing farm's profitability could expand its resources and also encourage youth to adopt farming so that it could develop more opportunities for the farm's economic status and boost the strategic tool for the agrarian economy (Shah et al., 2020).

The study "Economic Performance of Agritourism: An Analysis of Farms Located in a Less Favoured Area in Italy" by Arru et al. (2021) analyzed the status of farms operating in less favored areas (LFAs) in terms of profit. Moreover, the study aimed to evaluate the role of agritourism in having an influence on multifunctional farms situated in LFAs. The study used a methodological approach called balance sheet analysis; to systematically analyze the farm's profit. The study showed controversial performance regarding the agritourism farmers and their local product's price levels and truly profitable in markets (Arru et al., 2021). "The motives of South African farmers for offering Agri-tourism" by Zyl and Merwe (2021) study's objective is to determine the motives of the farmers for offering Agri-tourism. The study used a non-probability sampling method, and it used a standard questionnaire. The study proved that the most important motives of farmers were the economic advantages. Agritourism offered a variety of advantages to farmers in terms of economic benefits, job opportunities, and community fulfillment.

The study titled "Examining the Economic Benefits of Agritourism: The Case of New Jersey" by Schilling et al. (2012) examined the benefits of the economic aspect to the agritourism, justifying its components in such terms of the farm's income and shaping it up to be economically viable despite of globally increasing issues (Schilling et al., 2012). The study used case analysis, with the use of existing data from the assessment in the whole statewide of New Jersey. The study proved that the significance of Agritourism within its community is not understood and majority of the sources of the literature strongly relates economic aspect for it is the primary component in farm operation. "Benefits of Agritourism in Batangas Province" by Manalo et al. (2019) is a study that specifically identified the benefits of agritourism in such different aspects of the community in terms of social, economic, and environmental. The study used descriptive method, for it also used demographic profiles. The researchers also used the quantitative method and questionnaires as an instrument for the study. The researchers proved that the study mainly contributed positive impacts to each ascertained aspect; however, to fully assure the purpose of the study, the researchers proposed an action plan for promoting agritourism as a more effective and desirable form of community growth.

"The Role of Agriculture as a Development Tool for a regional Economy" by Loizou et al. (2019) opted to examine the potential factors that could boost agriculture through promoting a development to its regional rural economy, through involving various interconnections with its related sectors of economic activity. The study projected an "Input-output Analysis" to further analyze involved primary sectors, the regional economy, and the Common Agricultural Policy (CAP) of a particular local economy. The overall assessment of that study stated that Agriculture both directly-indirectly affect the communities in such manners of employment and household income of the region. It strongly emphasized the major relevance of economy in Agriculture (Loizou et al., 2019) in which the study could be a great reference for the current study's justification to the interrelationship of both aspects. "The Impact of Agritourism on the Development of Rural Tourism and the Agricultural Sector" by Negmatovich and Bakhtiyorovich (2022), a recent published study aimed to identify the major impacts of

Agritourism to rural areas and its agricultural sectors. The study used case study analysis using other existing studies' perspective to strengthen its objectives. The study proved that well-developed agro-tourism sectors and its activities can improve the economic developmental status of its region. Furthermore, there was still a high risk of implementing crucial plans whenever development arises within its environment, however, it still contributed to the increase in awareness, growth, and progress to the overall agricultural products of a particular farm (Negmatovich and Bakhtiyorovich, 2022).

“Economic Benefits of Selected Resorts in Dasmariñas City, Cavite: Basis for a Proposed Economic Strategy” by Movido et al. (2021) is a study that infiltrated the world of economic benefits through identifying various factors of it in such manners of direct impact, indirect impact and induced effects through the use of selected resorts in Dasmariñas City, Cavite. The study used a quantitative analysis approach to assess the participants' responses. The study specifically emphasized that the economic benefit was evidently seen for direct impact for it can generate job while on the indirect impact were also present for it produces jobs from other sector or services and induced effect truly causes an increase to the household income more than enough to sustain their day-to-day living (Movido et al., 2021). The study strongly relates to the current research study for its concept specifies the factors influenced to the economic aspect of a particular element. As for the *Figure 1* (Conceptual Framework) projected it indicates the foundation of the study as it systematically progresses throughout to the study's objective.

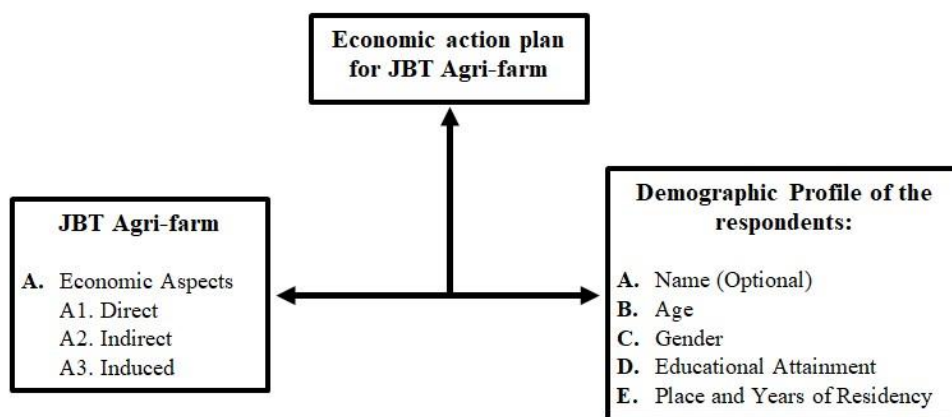


Figure 1. The conceptual framework of research study.

The researchers crafted their framework based on the idea of the economic impacts of tourism extracted from the study of Movido et al. (2021) wherein the study emphasized economic benefits of selected resort industry while the current study selected agritourism as the element of their study. It uses the aforementioned concept to fully assess and attain the research objectives. *Figure 1* illustrates the overall structure of the study, from the leftmost part of the framework it started with the economic aspects of JBT Agri-farm with its sub-variables of direct, indirect, and induced impacts, moving right to the demographic profile of the respondents in which the research objective is to ascertain the significant difference between the profile and their assessments that both directions will be intersecting the proposal of an economic management plan that stands as the output of the study. For the uniqueness of the study,

the researchers have considered focusing the wholeness of the study in the economic aspect of the Agri farm, for the reason that it commonly and inevitably happens to the operators of Agri farms and in response to the continual growth of the industry that could lead to potential threats along with progress (The National Agricultural Law Center, 2022). The study is also unique among other existing studies in terms of specification of the particular element rather than using a wide range of subjects as a topic of the study. To further assess the economic impacts, the current researchers used the responses of the immediate community surrounding the farm with the help of the assessments of the workers and the owner in the fulfillment of the study's objective. Lastly, the current study is the first to scrutinize facets about JBT Agri-Farms that could possibly open opportunities for the farm's development.

Materials and Methods

The researchers utilized the descriptive method in conducting the study. The descriptive method explains the features of the population or phenomena under investigation and gathers quantitative measurements for statistical analysis of the population sample (Bhat, 2021). The study employs a quantitative approach, in which this design entails a systematic analysis of occurrences through the gathering of quantifiable data and the use of statistical treatments (Fleetwood, 2021). Moreover, researchers used simple random sampling as a sampling method for their study. Through this method, opponents could easily generate information. This technique does not require particular requirements in selecting respondents, and each member of the selected population has an exact number of chances of being selected. Researchers used questionnaire as a tool for the convenience of both respondents and researchers to have an easy and organized data gathering. The questionnaires were adapted questions from the study of Movido et al. (2021) and considered an adequate number of questions enough for the study's objective. Beyond it, the reliability of the questionnaire was validated by two experts in the Agri-tourism field and professors of the institution. Furthermore, the questionnaires are guided by the responses of the 4 point-zero Likert scale method with the respective levels of strongly agree, agree, disagree, and strongly disagree. To further test the credibility of the questionnaire, researchers have executed a process called the Cronbach Alpha Test of Reliability wherein opponents released 30 sets of questionnaires and deploy them to the immediate community surrounding the farm to in-depth test the accuracy of each question. The result of the Cronbach Alpha Test has a value of 0.704, which indicates that both sets of questionnaires have internal consistency in comparison with the reference value of the accepted range during the test, which has a value of 0.60 - 0.80 that is considered moderate, but acceptable (WhatisAny Official Portal, 2021).

In addition to it, researchers have input statistical treatment on each objective aforementioned above to identify the demographic characteristics of the respondents used a frequency and percentage. On the second objective, the assessment of the economic impact of JBT Agri-farm required the process of weighted mean, the calculation of the average and multiplied to the mean and its sum (Keni, 2022), and treated by the researchers' statistician. Lastly, to determine the significant difference of the respondents' assessments, ANOVA and T-test were used to come up with a hypothesis with a narrative explanation of the computation of their profile and the relation with their assessment. The sole purpose of the study is to propose an economic

management plan based on the extracted assessments from the direct, indirect, and induced effects of the JBT Agri-farm. According to Local Government Unit authorities, the farm is surrounded by three streets. Moreover, researchers' choice of respondents is from the nearby communities that usually work and/or employees of the farm in which the *Table 1* below have projected.

Table 1. *Distribution of respondents.*

Immediate community	Total population of Dagatan, Amadeo	Percentage (%)	Total respondents
Pulunan road	132	19.76	50
Crisanto Delos Reyes	498	74.55	190
Morning Glory St.	38	5.69	15
Total	668	100	255

The *Table 1* had undergone a process of logical selection through the use of the Raosoft calculator to better analyze the proper distribution of respondents for each immediate community surrounding the vicinity of the farm and employees of JBT Agri-farm. The result is a total of 255 respondents that participated in the current study. For the researchers' to fully remind each respective respondent, they have attached a form stating that 18 years old and above is the only respondent valid to answer the questionnaire, and 17 below will be excluded and considered invalid.

Results and Discussion

Below are the projected results based on the specific objective of the proponents where the demographic characteristics of the respondents, particularly in gender, age, place and years of residency, and highest educational attainment have been identified. The results primarily assessed the gender of the respondents in which it identifies which group highly participated in the study. It emphasized that there were more female respondents with the value of 57.6% compared to the least number of male participants with the value of 42.4%. In terms of age, majority of the population belonged to the group of "31-55" that is evidently more participative in answering the questionnaire survey. While in the notion of residency, most of it actively came from the item "Crisanto Delos Reyes" with most of the residents who live around for 16-25 years. In contrast to the study of Manalo et al. (2019) there were certain groups of population that have a huge difference of totality in count compared to the other groups of community. Lastly, the highest educational attainment belonged to the group of high school graduates with the value of 55.3% in the total population.

In *Table 2*, the results above indicates that majority of the participants belongs to the item "female" in which it has a value of 147 as its frequency and covers 57.6% of the total population. On the other side, the item "male" has lesser number of participants with a value of 108 and covers 42.4% of the total population from the overall count of the population that has a value of 255. With these results, as cited in the study of Ćirić et al. (2021) majority of the respondents came from the gender "female" in which it values from 54.3 % that covers the 100% totality of the population. *Table 3* shows that most of the group that participated in the study came from ages 31-55 with the corresponding result of 99 as the frequency and 38.8% of the total 100% of the population. As cited in the study of Ćirić et al. (2021), it projects the same age range as the highest assessed

group for this age which are more active and credible when it comes to being aware of the study's objective. The least assessed group of participants came from the item 56 and above with 65 members under it and covers 25.5% of the total population. The reason behind it, is that some participants under this group were seen inactively participating and understandable to have lesser knowledge with regard to the subject due to age barrier and interest with agri-tourism Ćirić et al. (2021).

Table 2. Gender of the respondents.

Gender	Frequency (N)	Percentage (%)
Male	108	42.353
Female	147	57.647
Total	255	100

Table 3. Age of the respondents.

Age	Frequency (N)	Percentage (%)
18-30	91	35.686
31-55	99	38.824
56 and up	65	25.49
Total	255	100

Table 4 shows how researchers have selected three nearby communities surrounding the farm. The result indicates that there are more people in Crisanto Delos Reyes that corresponds to the 190 participants from the 255 total count of the population of the place that completes the 74.5% when converted to percentage. On the other hand, there are fewer people in Morning Glory St. with a value 15 and 5.9 percent. There are different numbers in each cluster. As long as it could contribute and participate in the study's attainment, it is balanced for different groups and has its own different opinion and perspective (Manalo et al., 2019). Table 5 projects that most of the respondents came from the group of 16-25 years in which corresponds to the 79 out of 255 participants with 31% of the total population. This table results that there are more active participants in this group of age for they are more knowledgeable about the place for they have the interest in accessing the place compared to the other group. With this result, it is also seen in the study entitled "Status of Agri-tourism Business in Central Luzon, Philippines: Basis for Development Plan", that this group with the similar range from the previous study is considered reliable due to the openly access of this population in visiting the place (Esguerra, 2020). While the least group that gathered a result of 47 out of 255 and 18.4% of the total population were considered as less experienced and probably has a low reliability if assessed for this group might not be interested in the ventures of an Agri-tourism (Esguerra, 2020). Researchers have also considered years of residency as a key of a reliable responses for the reason of actual experiences and neighboring evidence that can be seen daily by an individual.

Table 4. Place of residency.

Place of residency	Frequency (N)	Percentage (%)
Cristanto Delos Reyes	190	74.51
Puluhan Road	50	19.608
Morning Glory St.	15	5.882
Total	255	100

Table 5. Years of residency.

Years of residency	Frequency (N)	Percentage (%)
5-15	47	18.431
16-25	79	30.98
26-35	74	29.02
36 and up	55	21.569
Total	255	100

The result found on *Table 6* shows that most of the participants came from the group of high school with frequency of 141 out of 255 and 55.3% of the total population. In contrary to the study of Zyl and Merwe (2021), there were more college graduates who participated in their study in which was also in line to the actual subject of Agri-tourism. While there were fewer respondents who participated from the elementary group with 14 as its frequency and 5.5% of the total population, this indicates that there is higher education participated in the study and can be a credible source of information with regard to the subject of the study. Researchers have included education as one of the key factors in attaining the objectives for the reason of knowledge-wise and deeply educated when it comes to understanding the facet of Agri-tourism. The result of direct impact indicates that the highest mean was obtained by question number 1 emphasizing if JBT Agri-farm generates job opportunities in the area with a mean of 2.9 and verbal interpretation of “agree” based on the markings of 2.50-3.49 as a classification for agree (*Table 7*). Under this result, it denotes that direct effect are evidently seen through the variants it represents such as the product, services and the actual atmosphere that directly refers to the wholeness of the establishment. In other terms, direct effects strictly define the factors that unmediated to the economic aspect of the farm. The result highlights that direct effects under economic impact were evident due to its overall assessment labeled as “high” with a value of 2.69 as its mean. Specifically, it means that all the variables that could directly affect the establishment’s economy can truly contribute to the Agri-farm’s economic side. While on the other side of the spectrum, the result that has a least contributing factor is item number 5 with the mean of 2.6 and also has a verbal interpretation of “agree.” This means that JBT Agri-farm contributes to the income of its nearby communities in terms of influencing them to establish their own business in relation to farming, having a low impact when it comes to agricultural opportunities amongst its neighboring communities as cited in the study of Manalo et al. (2019).

Table 6. Highest educational attainment.

Highest educational attainment	Frequency (N)	Percentage (%)
Elementary	14	5.49
Highschool	141	55.294
College	100	39.216
Total	255	100

Table 7. Direct impact.

Direct impact (benefits of the farm)	Mean	Verbal interpretation	Ranking
1. JBT Agri-farm generates job opportunities in the area.	2.855	Agree	1
2. JBT Agri-farm improves economic growth in the area making the place distinguishable among other places.	2.651	Agree	3

3. JBT Agri-farm products were competitive when compared to other farm products or simply to the product found in the markets.	2.624	Agree	4
4. JBT Agri-farm contributes to the improvement of various places in adjustment to the accessibility to the farm.	2.769	Agree	2
5. JBT Agri-farm contribute to the income of its nearby communities in terms of influencing them to establish their own business in relate with farming.	2.58	Agree	5
Overall assessment on direct impact	2.696	High	

*Note: 1.00-1.49=Strongly disagree; 1.50-2.49=Disagree; 2.50-3.49=Agree; 3.50-4.00=Stronly agree.

For *Table 8*, the result under this impact indicates that item number 3 JBT Agri-farm increases the economic activity of other sectors in the industry such as the restaurant industry and any other type in this industry contributes to the indirect factors related to the Agri-farm tourism such as any other establishments or even small businesses surrounding the area. The result implies that the assessment under this effect is also evident with an interpretation of “high” in which it refers to the supplies and second benefactors of the Agri-farm’s services. Specifically, all of the affiliated and tie-up companies were seen generating an income from the Agri-farm that contributes to their economic state. This results also denotes that the least item was obtained by item number 5 in which specifically pertains to the context of how the farm helps the community to be the primary source of supply for the farm’s operation and material suppliers. This item has a mean of 2.7 with a verbal interpretation of “agree”. The overall assessment for this aspect is that it is also evident with an interpretation of “high” with a mean of 2.7 as the accumulated mean of all the items above. For *Table 9* under induced effects, the highest assessments were obtained by question number 1. Emphasizing that JBT can increase the quality of life in terms of stability of the operation of the affiliated businesses that support the farm itself; it has a mean of 2.8 with the verbal interpretation of “agree” which is in line with the study of Ćirić et al. (2021). On the other hand, the least item that obtained a low assessment as a contributing factor to the farm’s economic aspect is item number 5 with the context of how JBT improves the income and cost of living of other entrepreneurs at mostly relies on supporting the Agri-farm. This result denotes that all the assessments under induced effects state that it is also evident for it obtained a result between the bracket of the reference value of “high”. This implicates that induced effects in which pertains to the external factors such as the income generated from the farm’s expenses on how it aids the needs or wants of the proprietors involved. It has a mean of 2.5 and the overall assessment of induced effect towards the economic impact in JBT Agri-farm is “high” with the total mean of 2.6 and still under “high” interpretation.

Table 8. Indirect impact.

Indirect impact (benefits from business)	Mean	Verbal interpretation	Ranking
1. JBT Agri-farm improves investments of the other proprietors due to the interesting activities and products it offers.	2.744	Agree	3
2. Existing attractions or small businesses	2.745	Agree	2

	nearby the farm helps JBT Agri-farm increase in guest visit.			
3.	JBT Agri-farm increases the economic activity of other sectors in the industry such as restaurant industry etc.	2.831	Agree	1
4.	JBT Agri-farm increases the potential of creating other businesses around the area.	2.741	Agree	4
5.	JBT Agri-farm became the source of income of the nearby community in term of supplementing products and materials needed for the farm's operation.	2.667	Agree	5
Overall assessment on indirect impact		2.746	High	
*Note: 1.00-1.49=Strongly disagree; 1.50-2.49=Disagree; 2.50-3.49=Agree; 3.50-4.00=Strongly agree.				

Table 9. Induced effect.

	Indirect impact (benefits from business)	Mean	Verbal interpretation	Ranking
1.	JBT Agri-farm increases the quality of life in terms of stabilization in the operation of affiliated businesses.	2.784	Agree	1
2.	JBT Agri-farm increases the transaction of goods towards affiliated manufacturers needed as supplies for the farm.	2.557	Agree	3
3.	JBT Agri-farm increases the transaction of services.	2.671	Agree	2
4.	JBT Agri-farm improves the well-being of a person.	2.557	Agree	3
5.	JBT Agri-farm improves the income and cost of living.	2.506	Agree	4
Overall assessment on induced impact		2.615	High	
*Note: 1.00-1.49=Strongly disagree; 1.50-2.49=Disagree; 2.50-3.49=Agree; 3.50-4.00=Strongly agree.				

The *Tables 10* are the assessed level of significance of the respondents when classified with their respective profiles specifically, with their age, gender, place of residency, years of residency and highest educational attainment. There is no significant difference in the assessment of the male and female respondents on the direct impact, indirect impact and induced effect since the t-values of 0.158, -0.047 and 0.56 have p-values greater than 0.05 level of significance. The null hypothesis of no significant difference is not rejected. Thus, male and female respondents have the same assessment of direct impact, indirect impact and induced effect. There is no significant difference in the assessment of the 18-30, 31-55 and 56 and above respondents on the direct impact, indirect impact and induced effect since the F-values of 0.338, 0.009 and 0.111 have p-values greater than 0.05 level of significance (*Table 11*). The null hypothesis of no significant difference is not rejected (*Table 12*). Thus, the assessment of direct impact, indirect impact and induced effect are the same across all age groups. There is a significant difference in the assessment of the respondents from Crisanto delos Reyes. Puluhan Road and Morning Glory St. on the direct impact, indirect impact and induced effect since the F-values of 21.782, 15.378 and 13.255 have p-values less than 0.05 level of significance. The null hypothesis of no significant difference is rejected. Thus, the respondents from Crisanto delos Reyes gave the highest assessment on direct

impact, indirect impact and induced effect. There is no significant difference in the assessment of the respondents with different years of residency on the direct impact, indirect impact and induced effect since the F-values of 2.118, 0.949 and 0.569 have p-values greater than 0.05 level of significance (*Table 13*). The null hypothesis of no significant difference is not rejected. Thus, the assessment of direct impact, indirect impact and induced effect are the same across all groups of years of residency. There is no significant difference in the assessment of the respondents with different educational attainment on the direct impact, indirect impact and induced effect since the F-values of 1.987, 0.175 and 0.884 have p-values greater than 0.05 level of significance (*Table 14*). The null hypothesis of no significant difference is not rejected. Thus, the assessment of direct impact, indirect impact and induced effect are the same across all respondents with different educational attainment.

Table 10. Comparison by gender.

Effect	Male	Female	t-value	p-value	Interpretation
Direct impact	2.702	2.691	0.158	0.874	Not significant
Indirect impact	2.744	2.748	-0.047	0.962	Not significant
Induced effect	2.637	2.599	0.56	0.576	Not significant

Table 11. Comparison by age.

Effect	18-30	31-55	56 and up	f-value	p-value	Interpretation
Direct impact	2.67	2.693	2.742	0.338	0.713	Not significant
Indirect impact	2.746	2.751	2.739	0.009	0.991	Not significant
Induced effect	2.596	2.632	2.617	0.111	0.895	Not significant

Table 12. Comparison by place of residency.

Effect	Crisanto Delos Reyes	Puluhan Road	Morning Glory St.	f-value	p-value	Interpretation
Direct impact	2.811	2.3	2.56	21.782	<.001	Significant
Indirect impact	2.848	2.436	2.493	15.378	<.001	Significant
Induced effect	2.709	2.296	2.48	13.255	<.001	Significant

Table 13. Comparison by years of residency.

Effect	5-15 years	16-25 years	26-35 years	36 years and up	f-value	p-value	Interpretation
Direct impact	2.783	2.689	2.581	2.785	2.118	0.098	Not significant
Indirect impact	2.809	2.778	2.662	2.76	0.949	0.417	Not significant
Induced effect	2.694	2.63	2.581	2.571	0.569	0.636	Not significant

Table 14. Comparison by highest educational attainment.

Effect	Elementary	High school	College	f-value	p-value	Interpretation
Direct impact	2.429	2.698	2.73	1.987	0.139	Not significant
Indirect impact	2.814	2.752	2.729	0.175	0.839	Not significant
Induced effect	2.671	2.574	2.664	0.884	0.415	Not significant

The proposed action plan projected above was specifically crafted for JBT Agri-farm to fully enhance their management plan to further improve the poorly determined assessment from the questionnaire provided by the current proponents of the study (Table 15). Researchers systematically analyzed each proposed plan per sub aspect of the economic impacts which was divided into three effects: the direct impact, indirect impact and induced effects to create an organized proposal for each assessed problem. For the section of direct effects, researchers have envisioned an improvement to the product, its packaging, the production and the suppliers for aesthetically made products could boost the sales of the Agri-farm and product is the first-hand representative of the brand for it carries the wholeness service and reputation of the Agri-farm. Also, researchers have proposed that the farm should have a tie-up with other brands or companies for it can result to a wider network and branched out the influence of the Agri-farm where it fell under the section of direct effect for the reason that the company has the capability to push through with the tie-up.

Table 15. Proposed action plan.

Objective	Activities	Implementing bodies and strategic partners	The frame	Budget allocation (in PHP)
Product asthetic (DIRECT)	Create a contract to maximize the resources and minimize the cost of packaging.	-Packaging factory -Packaging -Business/supplies -Packaging industry	Start in the year 2023	1000 PHP/100 items
Social media handling/system automated responses (DIRECT)	Set a tie-up with different social media platforms.	-Social media platform (Facebook, Instagram & TikTok).	Start during 2022	5000-10000 PHP
Create online partners and government offices (INDIRECT)	Create contracts with possible online partners and government offices that would promote the agritourism site to be known for the public.	-Local government -Social media platform (Facebook, Instagram & TikTok).	Start in the year 2023	10000-15000 PHP depending on the partners
To establish or tie-up with the private establishment (INDIRECT)	Ste a tie-up with a related organization or establishment.	-Private companies/establishments	Start in the year 2023	10000-20000 PHP
Develop diversity economic activities like a booth in the agritourism attraction (INDUCED)	Gathered the employees of the farm and set or create activities like the booth to promotr and increase the revenue.	-Small business owners -Shopping center -Bazaar/plaza	Start during 2022	20000 PHP
To propose at least a 10% increase in the salary of employees depending on the agreement (INDUCED)	As a part of economic growth of the farm, proponents will boost the income of each employees as a motivational tool for the employees. As a partial proposal, there qill be at least 10-20% (subject to change depending on the economic growth) increase on the employees salary.	-Management -Future tie-ups	Stary in the year 2024	45.00 PHP per employee

Under indirect effects, is to establish an online partnership with particular social media platforms for it is a fad now when it comes to advertisement. Through this process, it can swiftly boost the promotional of the farm that could help the economic status of the establishment. Secondly, researchers have proposed for a two-way benefit of tie-up with private company. This process can benefit both companies involved in boosting their economies. Private companies are more reliable when it comes to their funding and influences. For the last effect under economic effects, is the induced, wherein proponents have suggested diversified activities such as expos with booths and fairs to promote more of the Agri-farm's product. Furthermore, is the increase in salary of the employees depending on the agreement between the two parties to further motivate them with the quality of their service and ways to encourage through the word of mouth. This proposed plan of action is subject to change depending to the prerogatives of the management and the researchers.

Conclusion

Agri-tourism had contributed enormous effects to the industry that sky-rocketed the sector as one of the most recognizable forms of tourism. Its continual growth inhibited and branched to a larger view that causes such abrupt problems specifically on its economic aspect. With this being deeply investigated, JBT Agri-farm represent the study's objectives as it possessed various characteristics of full potentiality but unpolished plans for better vision for the Agri-farm's development. All measures were based on the concept of impact analysis wherein it specifically targets the angle of direct effect which provides the definition of the actual variables that immediately concerns JBT Agri-farm. It also includes indirect effect that represents the actual services planned and managed by JBT but delivered by its staff that could somehow boost the economic state of the establishment. Its induced effect is the overall earning of the establishment and how it contributes to its external environment's economic state. These works as the medium concept in determining the specific problems encountered by the Agri-farm.

Since all the assessed gaps were basically extracted from the experiences of the current researchers, to avoid subjective opinions, the proponents have gathered 255 participants with full experience of the farm's product and services and/or have evidently seen or worked under the farm's vicinity and seek advice from professionals with full background of the study's nature to make it more précised and accurate. To further attain the study's objective, it undergone different processes. Firstly, to determine the demographic profile in such aspect of the respondents' gender, age, place and years of residency, and highest educational attainment to identify if the following factors affect the responses of each participant when answering the survey question. With the analysis of variants and T-test in particular parts of the objectives, its value frequency of 147 and 57.65% indicated that the item "female" obtained the highest result as the greatest number of respondents to participate in this study. In terms of age, the highest participating range came from the group of 31-55 years old that proves that this age group was found as the experienced ones in the Agri-tourism field. Also, the pace of residency contributes to the reliability of the study's objective on how it fully suffices the experience-based responses from an actual individual of the immediate community where the result indicated that the large place of residency under the item of Crisanto De Los Reyes Road with a value of 190 as the frequency that completes the total of 74.51% of the totality of the population had given increase to the relevance to

the years of residency and highest educational attainment to the responses of the participants to fully answer the question on how it significantly correlates to the respondents' opinion through the use of the questionnaire.

After careful assessment to the participants' responses, all the projected results indicated from the second objective emphasized the highlights of the study as it determines the economic aspect of JBT Agri-farm in terms of the various effects under impact analysis: the direct, indirect, and induced effects. All of the questions from the survey have undergone the process of Cronbach Alpha reliability testing for the pilot distribution to fully assess the reliability and the accuracy it could provide to the current proponents' objective. It resulted with a value of 0.704 based on the reference value of 0.60-0.80. The questions were represented by the responses of 4 point-zero Likert scale method with the respective levels of strongly agree, agree, disagree, and strongly disagree. Surprisingly, each effects manifested similar results with a verbal interpretation of "agree" where its immediate community agrees that the presence of each individual from Pulunan Rd, Crisanto Delos Reyes and Morning Glory St. had directly caused an impact with a value of an overall assessment of 2.7 and labelled as "high"/ lightly contributed to the economic state of the establishment and vice versa. For the indirect effect, it manifested similar results with a value obtained from the response of 2.7 as well with "high" as its verbal interpretation where it specifically pertains to the employment and product partnership towards their community and private sectors. This investigation lightly provides that the Agri-farm can indirectly affect its community. Lastly, the induced effect resulted into a similar response with the level of "agree"/"high" with a value of 2.6 as its mean. This basically means that it also concerns the living of the external forces (the owner, the employees and individuals that could benefit from the farm) on how it spends the generated money from the farm.

Additionally, researchers also determined the significant difference between the profile of the participants and their responses. Primarily, the gender indicates that both female and male possessed no significant differences during assessment of the three effects under impact analysis, with the used of t and p values. It was analyzed that there was no difference but there were similarities in responses. As per age, it indicated that there are no significant differences from 18-30, 31-55 and 56 and above on the concept of the study. However, there are also similarities in the responses across the ranges of the age. For the place of residency, it obtained a result with a significant difference on each selected communities using the f and p values having lesser value from the reference of p where it could be less than 0.001 matched to the results of f-values 21.78, 15.37 and 13.25. With the two-remaining profile, it determines the years of residency and highest educational attainment. It both possessed and interpreted as "no significant differences" when assessed with the actual questions from the survey. With this, the researchers' objective is to support the management's plan in enhancing the vision for the development of JBT Agri-farm. In polishing the current management plan, proponents carefully crafted an action plan as their output for the attainment of the study. They have included several factors that can completely enhance the current plan based on the assessed gaps or the lack of the current objective. For the systematic, organized and specific output, current researchers have included the actual objective of the project, activities, implementing bodies and strategic partners, time frame and the bracket of the budget estimate for the event's completion. As this study thrives, it raises an indirect introductory for the future researchers to pursue this line of work as the subject of their study. It may open a wide horizon of this sector to larger view of

individuals to increase the interest and be able to contribute to the growth of the merging sectors of the industry of agriculture and farm tourism.

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Conflict of interest

There is no conflict of interest with any parties involved with the study.

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