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# Fostering online social capital during the COVID-19 pandemic and new normal

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**ABSTRACT**

The impact of the COVID-19 pandemic in Indonesia shows a worrying phenomenon. The trend of increasing cases continues, with the number of confirmed cases approaching 4000 cases a day. Efforts to implement social distancing have been carried out in various regions which show a significant number of cases. At present, the Indonesian government has also prepared economic recovery through the new normal concept, by reopening public service activities and business economy while strictly implementing health protocols. This paper tries to provide a conception of online social capital to recommend solving the pandemic problem. Online social capital will generate productivity in people's lives in adherence to health protocols such as handwashing, wearing face masks, and other protective measures attempts. Furthermore, online social capital is expected to have an impact on smoothing the infection curve and stopping the transmission of the virus. This article suggests four steps including managing infodemic and literacy capacity, staying at home and protecting families from the spread of the virus, utilizing digital communication effectively, and preparing emergency response procedures for disaster management.

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## INTRODUCTION

COVID-19 pandemic is still affecting all over the world. All socio-economic aspects of life are affected by the pandemic and they carry implications for the policies of each country. Bauch & Galvani (2013) have identified SARS-coronavirus as a dangerous virus, and a vaccine has yet to be found. The pandemic may still be continuing to provide certain threats and pressures that affect the life of every individual (Bard, 2020). Life in various fields has changed markedly. In many ways, it has created a new culture that never existed before.

Indonesian government continues to work on curbing the pandemic by involving other interested parties. The updated data by September 28, 2020 showed a total case of 278,722 infected people, 204,870 recovered patients, 61,379 patients in care and isolation, and 10,472 people died (https://covid19.go.id/peta-sebaran/). The trend of increasing cases is predicted to remain in place, with the confirmed number approaching 4,000 cases a day (Figure 1).

Efforts to implement social distancing have been carried out in many regions which show a significant number of cases. However, there is a lengthy discussion regarding the implications of social distancing. Efforts to carry out social distancing need to be done as early as possible so that the spread of the virus stops immediately (Kraemer et al., 2020). Economic activity is also important to sustain people's lives and it is still needed to solve developmental problems in general.

In developing countries, the implications of social distancing are very complex. Von Braun, Zamagni, & Sorondo (2020) stated that social restrictions are only appropriate for rich people. Rich people can stay at home, wear masks and use personal protective equipment, and can even access technology to work or study from home. Poor people do not have many choices, as they have to work, travel, face health risks, and their children are unable to access online education. Therefore, social distancing cannot last long. Once the infection case curve starts to flatten or decline, social distancing can be reduced (Kissler, Tedijanto, Lipsitch, & Grad, 2020).

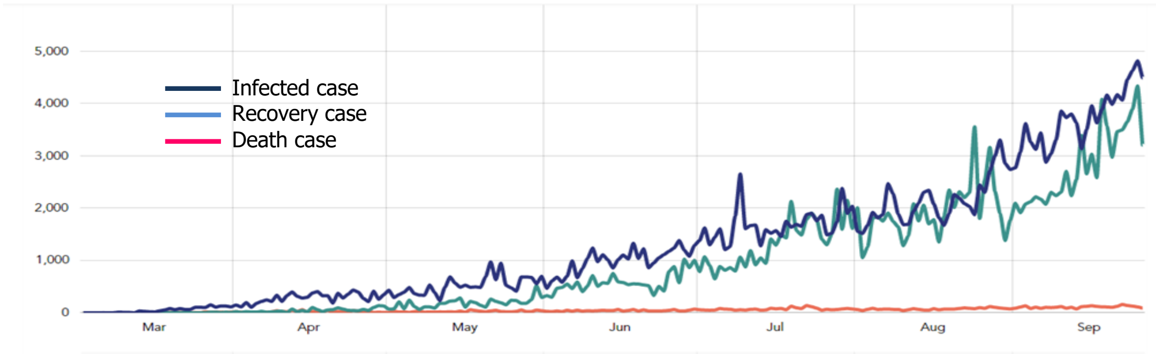


Figure 1. Daily number of cases of infection, recovery, and death during the pandemic (Source: https://covid19.go.id/peta-sebaran)

The Indonesian government, as well as that of other countries, have been preparing to carry out economic recovery through the new normal concept. The new normal concept is reopening public service activities and the business economy while strictly implementing health protocols, for example keeping physical distance, wearing masks, washing hands, and caring for health; this is supported by health care handling standard procedures.

However, entering the new normal state, an unanswered question remains to exist. On the one hand, the curve for the number of infected cases is still showing resurgence, and at the same time, the health protocol has not been implemented in a disciplined manner by the community. As previously stated (von Braun et al., 2020), many people have not complied with social distancing and health protocols because they have to meet their economic needs.

## NEW CULTURE

The impact of the COVID-19 pandemic needs to be addressed positively by developing social potentials while adhering to health protocols. The COVID-19 pandemic opens up insights on the need for a multidisciplinary approach to the prevention of virus spreading (Prather, Wang, & Schooley, 2020). Hodges & Jackson (2020) stated that it is time to rethink cultural institutions which can provide resilience for the survival of life, and to revitalize the economy. In a life called new normal, everyone needs to build a new culture by implementing new views, lifestyles, and economic behavior. Society needs to show social responsibility, to share more, to care more, to be more inclusive, and to comply with health protocols (von Braun et al., 2020; Walker et al., 2020).

Meanwhile, there have also been positive reactions in the community regarding the COVID-19 pandemic. As Hodges & Jackson (2020) suggested, an institution or a culture can react positively and be able to provide resilience during pandemic periods. The COVID-19 pandemic in Indonesia has raised new terms related to social distancing, work from home, or self-isolation, or lockdown. Society, business life, and government responds to this with their respective responses. At the same time, the flow of information is so fast, that it requires the ability of everyone to filter information from hoaxes (Djalante et al., 2020). This is a crucial question in facing the new normal period.

## SOCIAL CAPITAL

Community resilience in anticipating a pandemic can be approached through the concept of social capacity and social capital. Social capacity is an instrument that is able to organize complexity, through regulation, cooperation, and empowerment of the parties involved. Building social capacity is an important component in sustainable resource management (Schwaninger, 2018).

Social capital is a concept that refers to social ties (Putnam, 2001) to produce empowerment and community participation accompanied by commitment and optimal life performance (DeFilippis, 2001; Fukuyama, 2000). Social capital is the foundation of a society that can solve problems and it is a strength for society to be independent and to defend themselves. The more social capital you have, the stronger the social capacity of the community will be (Amornsiriphong, Piemyat, & Charoenrat, 2012). Social capital as a stock provides a medium for the development of social capacity. Social capacity provides direction for the management planning of a sustainable resource.

The implementation of social capital and social capacity to respond to pandemics has emerged from many studies. People have the initiative to use their abilities to help government efforts to implement social distancing programs or other activities. In Korea, women's groups volunteer to find, report, and monitor suspected people or COVID-19 patients. They also spray disinfectants and help make masks. In China, people monitor and prohibit the arrival of guests. Countries such as Singapore, South Korea, and China have aggressively built pandemic prevention monitoring networks through the use of big data technology, artificial intelligence, open-science, and citizen-data (Shaw, Kim, & Hua, 2020).

In Indonesia, the response of the government and society to the pandemic is a little late. Wild information and hoaxes about the pandemic have even dominated various social media platforms, causing social panic and unrest. However, this was quickly understood as more cases of infection emerged and the death toll started. The community then shows responses such as social assistance for infected families, isolating newly arrived families, limiting guest arrivals, activating local self-help security posts, and other social solidarity activities (Djalante et al., 2020). At the same time, the economic activity gives rise to a new phenomenon, namely the emergence of online transactions or direct selling from producers to consumers without going through the market due to the circumstances of social distancing.

## FOSTERING ONLINE SOCIAL CAPITAL

The social capital concept as stated (Fukuyama, 2000; Putnam, 2001) works in normal conditions, where social ties and empowerment operate without the constraints of physical distance. In such, life is still running normally using online and offline communication. In the current pandemic and new normal conditions, the social capital finds challenges that previously did not exist. Therefore, social capital must be able to work in a completely online condition, while at the same time is encouraged to reduce the virus transmission (Pitas & Ehmer, 2020).

Online social capital becomes relevant in the case of Indonesia, where there is still a lack of adherence to health protocols in the community. Indeed, online social capital can also safeguard people's lives to produce productivity in health protocol framework such as handwashing, wearing face masks, and other protective measures attempts. Online social capital is expected to have a positive impact on the sloping curve of the infection and it will immediately decline as expected in the new normal condition. The recommendations related to fostering online social capital are described below.

First, infodemic management and literacy capacity meet the quality of knowledge. Infodemic is abundant information, both online and offline. In Indonesia, the infodemic initially spread sporadically resulting in mis- and disinformation. This information can harm people's physical and mental health, increasing stigmatization, and leads to poor adherence, thereby reducing the effectiveness of curbing the pandemic (WHO, 2020). Infodemiology is recognized by WHO as an important emerging scientific field and a critical area of practice during a pandemic. Infodemic management requires an aspect of monitoring information, containing scientific literacy capacity, encouraging quality for information review, and reducing distortion (Eysenbach, 2020).

Second, in the pandemic periods, social ties should be increasingly strengthened among individuals, communities, and government agencies to form a stock of social capital. Social capital, in all its forms, is emphasized towards increasing adherence to health protocols and other protective behaviors. The ties in the family must be strengthened to protect the people in the house from the virus transmission (Bian, Miao, Lu, Ma, & Guo, 2020). Staying at home is a more effective protective behavior than just wearing a mask or washing hands (Yan, Bayham, Fenichel, & Richter, 2020). Trust in the government is enhanced through the attitude of everyone's compliance with public health indicators, with strengthening collective action to stop the virus spreading (Pitas & Ehmer, 2020).

Third, online social capital inevitably has to rely on digital mediated communication tools. Social communication through social media plays a major role in generating social capital during the current pandemic. The dissemination of factual information is expected to support productive life activities during the pandemic. Today, life at work, school, and public activities has shifted to remote connections. The digital telecommunication infrastructure is strengthened and supported by subsidized cellular data by the government. Online social capital further involves financing a significant amount of the government budget, specifically to support online student learning for poor families.

Fourth, the pandemic and the impact of COVID-19 have taught many things about the importance of social capital in disaster management works. The social capital of COVID-19 is a key consideration in disaster response measures. Humans do not want disasters to occur, but an alert attitude through social capital can provide valuable messages to prepare for unexpected disasters in the future. Indonesia is known to have the potential for major natural disasters, such as volcanic eruptions, earthquakes, tsunamis, floods, or landslides that evenly occur in all regions. A more thorough understanding of effective strategies for building and maintaining social capital during periods of social distancing using digital communication will be a valuable tool in future crises (Pitas & Ehmer, 2020).

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# Willingness to pay of the native chicken eggs in urban supermarket: evidence from Semarang, Indonesia

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**ABSTRACT**

Urban people show a certain preference in consuming native chicken eggs products. This research aims to identify market segmentation and analyze willingness to pay (WTP) for consumers of native chicken eggs. The research was conducted at four places in the supermarket in Semarang city. Respondents as many as 100 people were selected using an accidental sampling method. Data were analyzed by descriptive and Contingent Valuation Method (CVM). The results show that consumer market segmentation can explain the analysis of WTP. Marked characteristics of consumers of the native chicken egg include in between 25-50 years old (50%), female (89%), go shopping as family motivation (70%), and purchasing once a week (85%). 87% of respondents show the WTP in the range of 5 to 20% above the existing price. The maximum WTP is 23.45 thousand rupiahs per pack. The highest of maximum WTP found in rattan packaging in Superindo is 26.79 thousand rupiahs per pack. The highest WTP aggregation value is found in Gelael with mica packaging at the 373 thousand rupiahs. Furthermore, supermarkets can contribute to apply quality standards for native chicken eggs, and protect the interests of consumers.

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## INTRODUCTION

The native chicken eggs are a source of animal protein with delicious and highly nutritious flavors (Yang, 2018). The native chicken eggs are produced from native chicken species that have different characteristics from purebred chicken eggs. Native chickens is a term given to chickens raised with natural food such as bran, corn, insect, seeds, or rice that are easily found in a farmland environment. Native chickens are not fed any fodder containing chemicals. Thus, the native chicken grows in more natural environments and it takes longer raised periods than the purebred chickens. Native chicken eggs also have characteristics and shapes that are much different from purebred chicken eggs that are usually consumed for daily food. The average weight size of native chicken eggs is 34 to 45 gram/egg, compared to purebred chicken which is 50 to 70 gram/egg (Astawan & Kasih, 2008). Nutritional value of native chicken eggs contains protein (12.80%), fat (11.50%), carbohydrates (0.75%), water (74%) (Hidayat & Asmarasari, 2015). When compared to purebred chicken eggs, native chicken eggs have ingredient value per 100 grams containing 174 calories, 10.8 grams of protein, 4.9 mg of iron and 61.5 g of retinol or vitamin A. Besides, local native chicken eggs tastes better and fishy is lower (Johnson et al., 2020).

As the public knowledge increases, people are increasingly aware of the nutritional need needed by the human body and the nutritional need of families. Today, native chicken eggs are considered by the community to be consumed because it contains more the vitamin E nutrition and a 2.5 times omega-3 fat content more than purebred chicken eggs Lupu, Wuri, & Detha (2016). Omega 3 is a linoleic acid that functions for the formation of sphingomyelin and the structural components of nerve cells (myelin). Omega 3 affects the performance of brain development, the nutrients that are important for the growth of the brain and the eyes of children (Diana, 2013). Vitamin E works to maintain the health of various tissues in the body, in terms of skin tissues, eyes, red blood cells to the liver. Besides, it can also protect the human lungs from air pollution, which this health value is related to the work of vitamin E in the body as a natural antioxidant compound (Yuniati & Almasyhuri, 2012). Such nutritional contents make the price of native chicken eggs more expensive than purebred chicken eggs (Fadilah & Fatkhuroji, 2013).

The city of Semarang is the capital of the province of Central Java. It has even been one of the metropolitan cities in Indonesia. Semarang has become the center of economic activities in central Java, lead to trade, education, services, and tourism supported by the quality of human resources. The population of Semarang city is approximately 1.6 million people, comprising 793 thousand males and 802 thousand females. A city with a population of more than 1 million is assumed to be a high level of food consumption (BPS Kota Semarang, 2015).

Cities that have a large population and well-educated people among them influence public knowledge about the importance of a healthy lifestyle. Native chicken eggs are one of the choices by the community to meet nutritional intake needs. Cities that have a large population and well-educated people among them influence public knowledge about the importance of a healthy lifestyle. Native chicken eggs are one of the choices by the community to meet nutritional intake need. The existence of a large number of supermarkets in the city of Semarang is very helpful in meeting people's need for a variety of consumption.

At present, the development of modern markets such as supermarkets expends rapidly and has shifted the role of traditional markets. Some people, especially those who live in urban areas have fulfilled their daily need or household need by shopping in modern markets. Modern markets display more benefits for consumers because they are easily found in many places to shop with enjoyable facilities. Modern markets or supermarkets successfully capture the need of consumers, are able to meet the desires and tastes of consumers, while traditional markets are slow to respond to changes in consumer shopping behavior that is increasingly dynamic (Pramudiana, 2017). Consumers prefer to shop at supermarkets because of the practical payment system, comfortable spaces and a wider variety of products available (Fernandez, 2020). As a result, consumers' shopping behavior also changes and begins to shift to modern markets.

The concept of willingness to pay (WTP) is the maximum price that consumers are ready to pay for goods and services or it measures the value that consumers want to pay for goods and services. In other words, it can be interpreted to measure the benefits of a product from consumers (Bishop & Timmins, 2019). Consumers who are increasingly aware of the nutritional need and advantages of native chicken eggs want these benefits by the price incurred to obtain native chicken eggs. This shows that consumers are willing and able to pay a higher price of native chicken eggs than the normal price. The magnitude of the price that is willing to be paid by native chicken egg consumers needs to be known to calculate the price factor for native chicken egg producers. Native chicken eggs can be obtained from various supermarket places. Semarang City offers many supermarkets that offer choices for people to meet a variety of need. This can generate the level of consumption and the WTP for native chicken eggs.

This research aims to identify market segmentation of native chicken eggs and to analyze WTP for consumers in the supermarket in Semarang city, Indonesia.

## RESEARCH METHOD

The study was conducted in February – March 2020 in four supermarkets in Semarang City, Central Java, Indonesia, with a purposive location determination. Those supermarkets are Giant, Superindo, Gelael, and ADA. It is a large category supermarket, famous and most visited by consumers in Semarang city. Respondents were selected using the accidental sampling method. The interviews were done to the respondents who unintentionally meet with researchers at the supermarket. The number of population of native chicken egg consumers is not known with certainty, so the Lemeshow formula is used to obtain the number of samples, with the following formula:

$$n = \frac{z^2 \times p(1-P)}{d^2}$$ (Levy & Lemeshow, 2011).

in which n is the number of samples, z is z value at 95% confidence interval, p is a maximum estimate (=0.5), d is sampling error (=10%).

The variables used in this study are age, number of family members, education level, income level, product price, product packaging, motivation, and lifestyle. The study segments consumers are based on criteria of geography (the distance of the respondent's domicile to the supermarket), demography (age, sex, level of education, number of family members and income), psychography (motivation to buy chicken eggs in supermarkets) and behavior (frequency of purchase).

The calculation results obtained as many as 96 people and rounded to 100 people. The number was allocated with the same number of 25 respondents for each supermarket. Primary data collection was done by interview using questionnaires and secondary data were obtained from books, the internet, journals, and other papers concerning the research.

The first aim of the research is to describe the market segmentation of native chicken egg consumers. The data analysis method used was a descriptive analysis by explaining a general description of the segmentation of the native chicken egg consumers market in the Semarang supermarket narratively.

The second aim of the research is to analyze the magnitude of the average value of maximum WTP for consumers of native chicken eggs. The data analysis method used was quantitative analysis, which used a Contingent Valuation Method (CVM). The CVM value can be calculated by determining the market hypothesis, determining the bids value, calculating the average value of WTP, estimating the WTP curve, and determining the aggregation of WTP.

## RESULT AND DISCUSSION

### Profile of Consumer Respondent

Market segmentation of native chicken egg consumers is conducted to determine the situation and condition of the respondents regarding the purchase of native chicken eggs in the Semarang City supermarkets.

a. Geographical segmentation

The result of the study (Table 1) shows that the majority of respondents (56%) live in places that are close to a supermarket in a distance of equal to or less than 2.5 Km. The relatively close distance indicates that consumers consider the ease of access to fulfilling their consumption need. This finding confirms the study (Levy & Weitz, 2012) that the majority of consumers choose shopping places that are close to home/workplace, and those that are easily accessed from any direction without road congestion (Dwirachmawati, 2014).

b. Demographic segmentation

Demographic segmentation conducted aims to map the consumer based on consumer characteristics. Table 1 shows that majority of respondents are in the productive age of 25 – 50 years. The age criteria refer to the ability to take action in determining the decision to buy native chicken eggs. The age group also has a high interest in a healthy lifestyle, or someone's age can provide benefits in their lives. Meanwhile, most people at the age of more than 50 years have a body's immune which tends to decrease, so that it requires more and more healthy and nutritious food. In these conditions, a person is required to eat healthy and nutritious foods. Older people are encouraged to consume food that prioritizes quality over quantity. Food quality for older people must meet adequate nutritional need (Fitriani, 2012)

Table 1 also shows that the number of female respondents (89 people) is much more compared to male respondents (11 people). It shows that females more often go to the supermarket by taking knowledge and information about the benefits of the product. Tooy (2015) stated that women go shopping with a prepared plan from home and cognitive knowledge factors, in which by doing so, women are more dominant than men. Furthermore, Hanifawati et al. (2017) said that the intensity of shopping for women is higher and tends to buy products by paying attention to the quality of the products.

Moreover, the result of the study shows that the educational background of consumers is generally at a high level of education or 51% is a university graduate. According to Sumarwan (2015), the higher a person's education level, the better the way of thinking in dealing with a problem or decision in purchasing an item. The influence on the purchasing decisions of the respondents is related to the level of knowledge and awareness of the respondents in consuming food that is healthy and can provide benefits to the human body.

Table 1. Characteristics of Respondent Purchasing Native Chicken Eggs in Semarang Supermarkets

| Variable | Giant | Gelael | Superindo | ADA | Percentage |
|---|---|---|---|---|---|
| | ..................... people ..................... | | | | % |
| Distance from home to a supermarket | | | | | |
| < 2.5 km | 6 | 14 | 20 | 16 | 56 |
| 2.5 – 5 km | 14 | 8 | 3 | 6 | 31 |
| 5 – 7.5 km | 4 | 3 | 2 | 1 | 10 |
| 7.5 – 10 km | 1 | 0 | 0 | 2 | 3 |
| Age | | | | | |
| Less than 25 year | 3 | 1 | 3 | 7 | 14 |
| 25 – 50 year | 14 | 15 | 14 | 7 | 50 |
| More than 50 year | 8 | 9 | 8 | 11 | 36 |
| Sex | | | | | |
| Female | 25 | 23 | 22 | 19 | 89 |
| Male | 0 | 2 | 3 | 6 | 11 |
| Level of education | | | | | |
| Elementary School | 3 | 1 | 8 | 0 | 12 |
| Junior and Senior High School | 12 | 9 | 3 | 13 | 37 |
| University | 10 | 15 | 14 | 12 | 51 |
| Number of family members | | | | | |
| < 4 people | 13 | 15 | 15 | 16 | 59 |
| 5 – 6 people | 8 | 7 | 6 | 9 | 30 |
| > 6 people | 4 | 3 | 4 | 0 | 11 |
| Income | | | | | |
| < 2.5 million rupiahs/month | 3 | 0 | 5 | 4 | 12 |
| 2.5– 3.5 million rupiahs/month | 13 | 8 | 7 | 11 | 39 |
| > 3.5 million rupiahs/month | 9 | 17 | 13 | 10 | 49 |
| Motivation | | | | | |
| Ownself | 7 | 10 | 5 | 8 | 30 |
| Family | 18 | 15 | 20 | 17 | 70 |
| Frequency of purchase | | | | | |
| 1 times/week | 20 | 20 | 23 | 22 | 85 |
| 2 times/week | 5 | 4 | 0 | 3 | 12 |
| > 3 times/week | 0 | 1 | 2 | 0 | 3 |

Meanwhile, the number of family members of the respondents is categorized as small families, i.e. less than or equal to four. It is in line with the National Family Planning Coordinating Board (BKKBN) definition, the small families are family members of less than or equal to 4 people. Utami (2011) further stated that the number of members influences the selection and fulfillment of food nutrition consumption in a family. The small number of family members will increase the consumption of staple products.

Furthermore, the majority of consumers of native chicken eggs come from high-income levels (49%), with more than 3.5 million rupiahs per month. It exceeds the regional minimum wage in Semarang of 2.5 million rupiahs per month. Consumers with higher incomes are likely to buy and consume native chicken eggs even though the price of native chicken eggs is more expensive. Consumers with higher incomes tend to pay more attention to quality than quantity. This shows that the level of one's income influences the decision in purchasing native chicken eggs. These results are in line with Sriwaranun et al. (2015) who stated that WTP for products at higher prices and the incomes have a positive relationship. According to Rahayu, Hapsari, & Adam et al. (2017), consumers who have high incomes prioritize the health benefits obtained from consuming the product disregard the price of the product.

c. Psychographic segmentation

Psychographic segmentation based on motivation (reasons for buying and consuming native chicken eggs) at Semarang supermarkets shows that majority of respondents coming from families by 70% and themselves by 30%. Family motivation is the motivation that comes from outside or influence from others in doing something. This shows that respondents buy and consume native chicken eggs to meet the need of the family and that can be at the request or desire of the husband, wife, parents, and children. Suardika, Ambarawati, & Sukaatmadja (2014) and Ikasari et al. (2016) said that extrinsic motivation is motives that come from the influence of others such as the encouragement of family and environment to do something.

d. Purchase behavior segmentation

Table 1 shows that the highest frequency of purchase of native chicken eggs is once a week (85%). It shows how much consumers need for a product or how often they buy to meet the need of the consumption of native chicken eggs in Semarang supermarkets. Zulaicha & Irawati (2016) stated that the more often the product is purchased, it indicates that the product is favored by consumers. Consumers buy native chicken eggs because of the benefits offered by native chicken eggs for health benefits (Yuniati & Almasyhuri, 2012).

### Product Packaging

Native chicken egg product is one of the ingredients of poultry chicken origin food of high nutritional value. The native chicken eggs are usually packed in rattan and mica materials that each pack contains 6 items. The number of respondents purchasing native chicken eggs presented in Table 2.

Table 2. Distribution of Native Chicken Eggs Purchases by Respondents

| Type of Packaging | Number of Respondents | Average Purchases by Respondents |
|---|---|---|
| | people | % |
| Rattan | 31 | 7.75 |
| Mica | 69 | 17.25 |

The number of respondents who bought rattan packaging was 31 people with an average purchase of respondents 7.75% and the number of respondents who bought with mica packaging was 69 people with an average purchase of respondents 17.25%.

The number of respondents who bought native chicken eggs in rattan packaging is fewer because its price is more expensive. Rattan packaging takes additional costs incurred from bamboo materials and is considered more environmentally friendly. This finding confirms Hantoro & Soewito (2018) and Fakhruzy (2018) who stated that packaging with natural materials (bamboo and leaves) is made without using chemicals hence environmentally friendly and the strength of bamboo is not inferior to synthetic packaging.

Table 3. Characteristics of Respondents Based on WTP at Higher Prices for Native Chicken Products

| Variable | Yes | No |
|---|---|---|
| | ..... people ..... | |
| Age | | |
| < 25 year | 5 | 9 |
| 25 – 50 year | 47 | 3 |
| > 50 year | 35 | 1 |
| Sex | | |
| Female | 76 | 12 |
| Male | 11 | 1 |
| Level of education | | |
| Elementary School | 3 | 9 |
| Junior and Senior High School | 34 | 3 |
| University | 50 | 1 |
| Number of family members | | |
| < 4 people | 54 | 5 |
| 5 – 6 people | 29 | 1 |
| > 6 people | 4 | 7 |
| Income | | |
| < 2.5 million rupiahs/month | 2 | 10 |
| 2.5 – 3.5 million rupiahs/month | 37 | 2 |
| > 3.5 million rupiahs/month | 48 | 1 |
| Price of the native chicken egg | | |
| < 25 thousand rupiahs/pack | 67 | 11 |
| 25 – 30 thousand rupiahs/pack | 19 | 2 |
| > 30 thousand rupiahs/pack | 1 | 0 |
| Packaging type | | |
| Rattan | 28 | 3 |
| Mica | 59 | 10 |
| Motivation | | |
| Ownself | 25 | 5 |
| Family | 62 | 8 |
| Frequency of purchase | | |
| 1 times/week | 44 | 5 |
| 2 times/week | 17 | 3 |
| > 3 times/week | 26 | 5 |

### Willingness to Pay

The result of the study (Table 3) shows that the older people indicates the higher WTP than the normal price because they have better environmental awareness and healthy lifestyle. Likewise, the higher the education level of respondents, the higher the level of knowledge and awareness about the importance of health (Sumarwan, 2015). The higher the respondent's income, the more concerned with the health benefits obtained from a product he consumes and the price paid (Rahayu et al., 2017).

In summary, the result shows that 87 respondents show WTP more than the current price to get a native chicken egg product. The higher WTP is described by the respondents who are in the age range of 25 to 50 years, have the number of family members is fewer than or equal to 4 people, graduated the college/university, have a monthly income of more than 3,5 million rupiahs, buy native chicken eggs at 25 thousand rupiahs per pack, purchase in mica packaging, buy as the motivation family reason, and go shopping in once a week.

Table 4. Number of Respondents Who are WTP Additional Price

| Additional Price of WTP | Respondents |
|---|---|
| % | people |
| 5 | 35 |
| 10 | 23 |
| 15 | 9 |
| 20 | 20 |
| Total | 87 |

Furthermore, this study shows that the magnitude of WTP (87 respondents) of native chicken egg ranged from 5 to 20% higher than the existing price, with the distribution presented in Table 4. The WTP range between 5 to 10% was found to be the highest, while respondents' responses to the WTP more than 10% displayed a sharp decrease. The results of this study are similar to Hamzaoui & Zahaf (2012), who stated that most consumers do not respond on WTP more than 10% of the normal price.

However, Table 4 also shows that there is a significant response, where respondents show WTP at higher prices for native chicken eggs up to 20%. This group of respondents is mostly college university graduates, in which the influence in purchasing decisions is related to the level of knowledge and awareness in consuming healthy foods and can provide benefits to the body. According to Sumarwan (2015), the higher a person's education, the better the way of thinking in dealing with a problem or decision in purchasing an item.

## Maximum Willingness to Pay

The analysis of consumers' WTP for native chicken egg products is done using the (CVM) to determine the average WTP of consumers. The results of the calculation of the average of maximum WTP for native chicken egg consumers are presented in Table 5.

Table 5. Average of Maximum WTP of Native Chicken Eggs in Supermarkets

| Supermarket and Packaging*) | Initial Price | Average of Maximum WTP | Additional increase |
|---|---|---|---|
| | .. thousand rupiahs.. | | % |
| Giant | | | |
| Rattan | 23.50 | 25.51 | 8.57 |
| Mica | 20.90 | 24.36 | 16.55 |
| Gelael | | | |
| Rattan | 20.95 | 24.97 | 19.16 |
| Mica | 17.95 | 20.74 | 15.55 |
| Superindo | | | |
| Rattan | 24.99 | 26.79 | 7.22 |
| Mica | 18.95 | 20.47 | 8.00 |
| ADA | | | |
| Rattan | 23.10 | 25.41 | 10.00 |
| Mica | 18.00 | 19.38 | 7.64 |
| Average | | | |
| Rattan | 23.14 | 25.67 | 11.23 |
| Mica | 18.95 | 21.24 | 11.93 |

The result of the study (Table 5) shows that the maximum value of WTP for native chicken egg products varies depending on the price and the willingness of consumers to pay higher than the current price. The average maximum WTP value for all packages (rattan and mica) is 23.45 thousand rupiahs. The highest average of maximum WTP found in rattan packaging in Superindo is 26.79 thousand rupiahs, while the lowest average maximum WTP discovered in mica packaging in ADA is 19.37 thousand rupiahs.

Table 4 also presents the additional increase in maximum WTP compared to the initial price. An additional increase of WTP from all native chicken products ranged from 7.22 to 19.16%, with an average increase of 11.58%. According to Krystallis & Chryssohoidis (2005), the maximum WTP that is willing to be issued or paid more by consumers depends on the type and price of the food product. Furthermore Eka, Wibowo, & Mustapit (2019) revealed that the average maximum WTP of the organic egg is Rp 29.5 thousand rupiahs per pack (10 eggs).

## Willingness to Pay Curve

The respondent's WTP curve is formed from the X and Y axes, where the X-axis represents the cumulative number of respondents who choose a WTP and the Y-axis represents the WTP itself. The presentation of graphic images on the X-axis is presented upside down to show an estimate of the aggregate amount of consumer surplus.

The results (Figure 1) show that the WTP curves of the native chicken egg in the mica (right) and rattan (left) packages in the Semarang City supermarket, respectively. The figure shows that the curve moving from top left to bottom right resembles the shape of the demand curve. WTP curves illustrate the amount of accumulation of people to the value of WTP for a product. The WTP curve has a negative slope, which means that the higher the value of the WTP, the less the number of people who shows WTP. Conversely, the lower the WTP, the more people state their WTP to get a certain product.

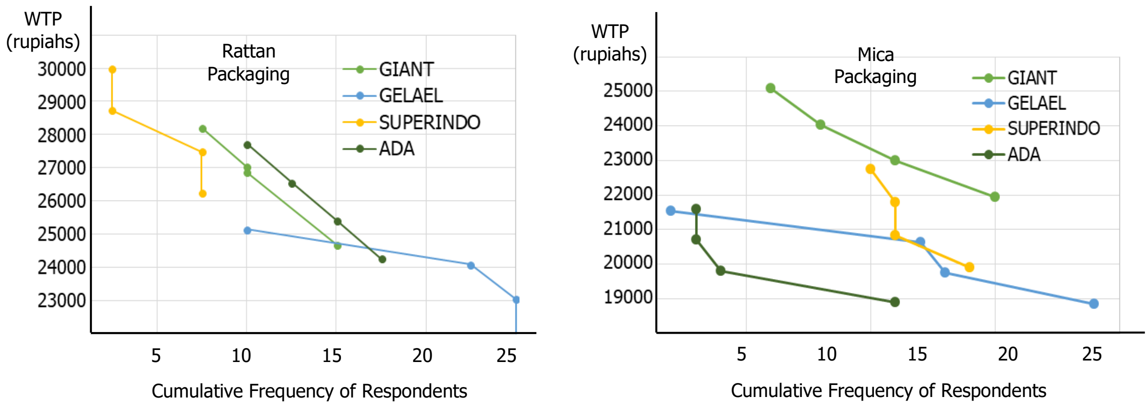


Figure 1. WTP curves of native chicken eggs (left: rattan packaging; right: mica packaging)

Respondents assume that the benefits of native chicken eggs consumed are more valuable than the money being paid. Therefore, respondents show their WTP at higher price. This is following the statement of Prayana & Yuliarmi (2020) who stated that consumers take WTP more for a product because of their high level of awareness and health care. This is also supported by the study of Aufanada, Ekowati, & Prastiwi (2017), which shows the movement of the WTP curve for describing the situation where respondents are ready to pay a higher price. The finding of Mengistie (2020) reveals that the willingness to pay about 5 to 50% above teh premium price of organic products can be viewed as the cost of investment in human health.

## Aggregation of Willingness to Pay

Aggregation of the total WTP native chicken eggs is the overall value of the values willing to be paid by all respondents in the study. WTP aggregation was obtained by using the average value of WTP multiplied by the number of respondents who show their WTP. The results of the calculation of aggregation of WTP native chicken eggs are presented in Table 6.

Table 6. Aggregate WTP of Native Chicken Eggs in Supermarket

| Supermarket | WTP Aggregation by Packaging | |
|---|---|---|
| | Mica | Rattan |
| | .... thousand rupiahs .... | |
| Giant | 341 | 158 |
| Gelael | 373 | 149 |
| Superindo | 204 | 241 |
| ADA | 329 | 152 |

The WTP aggregation has different values in each location and packaging type. The highest WTP aggregation value is sold in Gelael with mica packaging at the 373 thousand rupiahs. Meanwhile, the lowest WTP aggregation is found in Gelael with rattan packaging at 149 thousand rupiahs. The high value of aggregation in Gelael with mica packaging is due to high product prices and the frequency of respondents who pay more than the current price, which was as many as 18 people. Meanwhile, the native chicken eggs in Gelael with rattan packaging have low purchase frequency. It was only 6 of 100 respondents. Different aggregation values are caused by differences in prices and the maximum value that respondents are ready to pay. This is following the opinion of Krystallis & Chryssohoidis (2005) who stated that the value of maximum WTP and aggregation value of WTP very depends on the price of the product and the type of product.

**Research Implication**

First, the perception of the price of native chicken eggs that is considered expensive is an obstacle for producers. In determining the selling price, it is important to know how much consumers purchasing native chicken eggs. This study emphasizes that consumer market segmentation includes geographic, demographic, psychographic, and behavioral segmentation. Consumer market segmentation can be a reference and substantial evaluation for supermarkets to understand consumer perceptions so that products can meet the need and desires of consumers precisely. Gil, Gracia, & Sánchez (2000) in his research on market segmentation and consumers' WTP for organic food products in Spain stated that high production costs and distribution margins lead to high selling prices, therefore information on the maximum value of WTP is needed. This information can support producers to implement an adequate pricing strategy for food products. The native chicken farm business is fundamentally relatively profitable from the producers' side. Native chicken farmers relatively do not hold on production costs as broiler chicken businesses, which require the supply of feed, seed, and cage maintenance (Suwarta & Hanafie, 2018).

Second, variables such as age, gender, income, and education are the most important factors affecting WTP analysis of native chicken eggs. Other main factors affecting WTP include the number of family members, product prices, product packaging, motivation, and lifestyle. The older people are the higher the WTP compared to the existing price. In general, older people show better environmental awareness and a healthy lifestyle. Moreover, more WTP will be exhibited by the higher the education level, knowledge, and awareness about the importance of health. The higher the respondent's income will see the importance of the health benefits obtained from a product disregard the price side. Aufanada, Ekowati, & Prastiwi (2017) stated that among the factors found to affect WTP include gender, age, income, and education.

Third, consumers consider native chicken eggs as healthy, nutritious, and delicious food. In this study, 87% of respondents present WTP more to purchase native chicken eggs. This can reinforce the finding of Güney & Giraldo (2019) in which the motivation to consume organic accordance with the individual benefits that have a greater impact than collectivist benefits on consumer choices for buying organic eggs. Furthermore, native chicken eggs are as a source of healthy and nutritious food ingredients need more attention. This implication can affect various parties in the native chicken egg business chain. The government can take a role in terms of education and health to encourage the formation of healthy and quality of the human resources. Native chicken farmers need to be encouraged to innovate to increase chicken egg production that meets the standards of poultry farming. Supermarkets as hubs of the trade chain can play a role in implementing quality standards for quality native chicken egg products.

## CONCLUSION AND SUGGESTION

Consumers characteristics that are based on the geographical, demographic, psychographic, and behavioral segmentation can be viewed as important for research analysis of WTP of the native chicken eggs. The distance of domicile to the supermarket becomes the consideration of consumers to buy native chicken eggs in Semarang city. Consumer respondents of the native chicken egg show primary characteristics such as majority (50%) in between 25 to 50 years old, female (89%), the number of family members of fewer or 4 people (59%), university graduate (50%), go shopping as family motivation (70%), go supermarket once a week (85%). Whereas, the maximum WTP for native chicken egg consumers is 23.45 thousand rupiahs per pack (@ 6 eggs). The highest of maximum WTP found in rattan packaging in Superindo is 26.79 thousand rupiahs per pack. The highest WTP aggregation value was found in Gelael with mica packaging at the 373 thousand rupiahs.

This research suggests that the government can educate and disseminate information and benefits of native chicken eggs to the community. This socialization will increase public awareness and awareness to better understand the benefits and importance of native chicken eggs. Supermarkets as a link between supply chains and trade systems can pay more attention to applyi quality standards for native chicken eggs and to protect the interests of consumers.

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# Stakeholder collaboration to support accountability in village fund management and rural development

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**ABSTRACT**

The village government has an substantial responsibility in managing human resources to produce regional economic benefits. This research aims to identify the stakeholder collaboration to support accountability in village fund management and rural development. This study used an interactive approach with data collection methods such as structured interviews, documentation, and observation. The object of the study is village officials in Pranggang Village, Plosoklaten District, Kediri Regency, East Java Province. The results of the study showed that the village government has not optimally carried out its role in involving more stakeholders. Collaborative stakeholders in managing village funds involved village government officials, activity management team and community. They play a positive role in bringing about village accountability in managing village funds. An increased community participation contribute to program evaluation activities and effectiveness in the village financial management. The accountability of the village funds utilization has met the Home Affairs Ministerial Regulation number 113 of 2014. In addition, social accountability has been applied in various forms of effective interactions between the community and village government. Much efforts are required to improve the quality of human resources through more stakeholder engagement, training activity and community empowerment.

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## INTRODUCTION

The direction of the National Long-Term Development Plan (RPJPN) 2005-2025 states that one perspective of the long-term development for the region can be associated with the success of development at the rural level, especially by synergizing between urban and rural activities in the sustainable regional development.

The legal basis of the village development is reinforced with Law number 6 of 2014 concerning villages. This regulation contains a vision that the government is focusing on the developing and strengthening village governance. Law number 6 of 2014 provides the basis for policies aimed at encouraging initiatives, movements and participation of village communities to develop its potentials and assets for mutual prosperity and to form a professional, efficient, effective, open, and accountable village government.

The leadership of the central government carried out by the new order regime was the forerunner to the implementation of a government system that did not provide opportunities for regional growth and local capacity development (Setiawan et al., 2018). Thus, the regulation of the village gives hope for the formation of a good village government (good governance) and provides services for increasing economic activity in the village. The village government also needs to be prepared so that it can carry out its tasks by implementing accountability.

Accountability is a vital element of good governance and refers to the accountability of government officials for their activities in public management (Drake & Dingler, 2001). One form of excellent services that must be carried out by the village government is accountability following the mandate of the regulation. According to Scott (2003), accountability is a mechanism that must be carried out by public officials to explain and ensure that their actions are appropriate, ethical, and responsible. The accountability creates mechanisms that hinders or minimizes the misuse of authority and corrupt behavior in the village (Bovens et al., 2008; Drake & Dingler, 2001; Rizkita, 2016)

Rahmaddhana & Sentanu (2020) revealed that local government management still possesses potential problems related to the efficiency of budget planning, abuse of authority and corruption, and performance accountability. Other problems are policies that are a disincentive to investment, decision-making authority, and unresponsiveness in public services.

Implementation of rural development often creates a divergence between the goals and priorities of development (Sisto et al., 2018). Village economic development is how to meet the needs of the community for welfare purposes, but the process of village government accountability also meets the requirements of the central government. At present, the average village development budget is two to three billion per fiscal year (Solikhah & Yulianto, 2018). According to the Minister of Domestic Affairs Regulation 113 of 2014 concerning Village Finances, the source of the village development budget comes from village own revenue (PADes), transfers fund (funds for village, village fund allocation, etc.) and other revenue.

According to Rizkita (2016), there are three types of village government accountability. First is fiscal accountability. Fiscal accountability is the control and responsibility of the leader to the assignor or parallel or horizontal parties. The indicator of fiscal accountability is the annual village administration accountability report document to the Regent or Mayor. Second is social accountability. This is the control and responsibility of the leader to certain community groups or interests. Indicators of social accountability can be in the form of rules and delivery of procedural information to the public, such as the availability of written documents and public information. The Last is bureaucratic accountability. This is the control and responsibility of the leader to the elements of the community, for example, the preparation of financial documents every certain period.

The transparency in the bureaucratic mechanism is very essentials in the way of the governance process. Along with the authority of autonomy to local governments, however, this has not been balanced with accountability (Putra, 2011). By decentralizing power to local government, local entities will have greater knowledge and abilities about services to rural communities, and it can develop policies that are appropriate to their specific needs, which in turn should encourage the participation and cooperation of all local stakeholders (Kelliher et al., 2014). According to (Jung et al., 2015), the participation of a myriad of stakeholders involved in the planning system of both national and local governance becomes more common and governance regards participation as a powerful driving force to effective planning and development. According to Hanida et al. (2017), a good relationship between stakeholders provides functions as partners and colleagues of local government work units at the regency level, including the village government. Stakeholder collaboration in cooperative development can be lesson learned (Soetriono et al., 2019), with implementing functions of member annual meeting, developing innovation, making economic partnerships, strengthening capital formation, facilitating members into the agribusiness chain, and improving the cluster of the production system.

According to Sharma & Starik (2004), the role of stakeholders is an important element of organizational sustainability that helps organizational management guide understanding community issues and generates benefits for achieving prosperity. Jones & Wick (1999) stated that stakeholders can contribute input, perspectives, and values or ethics in decision making, organizational governance in order to achieve organizational goals.

Savage et al. (2011) explained that stakeholders can focus on strategic matters to develop cooperation and strengthen social life. Carroli (1991), suggests the formation of stakeholder groups with specific interests or criteria according to the need in the organization. Stakeholder groups can influence the organization in carrying out activities, formulating objectives, and policy directions according to what was agreed upon. Mitchell et al. (1997) stated that stakeholders can develop ideas for managing organizations that are considered capable of providing the power of legitimacy and urgency for the public interest. Collaborative relationships are emphasized to promote mutual understanding in a group (Usadolo & Caldwel, 2016) and stakeholders focus on various types of formal mechanisms rather than one type of formal mechanism for binding stakeholders (Ozdemir et al., 2019).

The village fund program was allocated first in 2015 by the central government approximately one billion rupiahs per village. The magnitude of the nominal budget is adjusted to several conditions such as population, area size, poverty rate, and geographical barrier level. Beside from the central government, the village also receives other budget sources such as village funds allocation (ADD) from district/city governments, manageable assets of crooked land, or dividends from village own businesses (BUMDes).

Pranggang village in Kediri regency is a village that presents development progress in various economic activities. The village also utilizes village funds to empower economic life in various activities. In 2017, the total condition of village finances was 2.295 billion rupiahs. The nominal budget came from village funds of 832.6 million, regent government 748.7 million, village fund allocation 497.0 million, provincial government financial assistance 99.25 million, profit sharing tax return 52.4 million, the surplus budget of end year 36.2 million and other revenue of 28.4 million.

With a such financial budget, the village of Pranggang is required to ensure a mechanism of accountability management to avoid the opportunities for fraud or inappropriate decision making. It is therefore necessary to strengthen various internal and external elements in the village stakeholders to monitor the performance of the village government in managing village finances. Collaboration between stakeholders and the village government is expected to provide learning and strengthen the management of accountable village governance. In the preliminary study, the role of collaborative stakeholders has not fully functioned to support the accountability of rural government administration.

This study is to provide identification of the collaboration of several stakeholders in village government affairs. This study aims to describe the collaborative stakeholders in the village of Pranggang in the implementation of village governance in terms of planning, implementation, administration, reporting, and village financial accountability.

## RESEARCH METHOD

This research used a qualitative approach and method. This approach assumes that the research problem is still not identified or requires conformity about the problem being addressed. The research was carried out with field spot studies to explore research objects that focused on the role of stakeholder collaboration in managing village funds. The study also applied an interactive approach from Miles et al. (2014), where qualitative data analysis were carried out interactively and is carried out continuously until fulfillment, so that the data characteristics display a clear point and meet the validity requirements (Cropley, 2019).

The research location was in Pranggang village, Plosoklaten District, Kediri Regency. Data periods were collected in December 2019 - January 2020. The researchers used purposive sampling to select competent respondents who were able to answer and explain each finding. Interviews were conducted with village government officials, such as the village head, village secretary, village treasurer, head of development and planning affairs, head of community welfare affairs, and village community empowerment. Data collection was done through structured interviews, documentation, and observation with confirmation to produce valid findings.

The research variables were focused on village government accountability. The accountability variable was described in more detail in the implementation of village governance in terms of planning, implementation, administration, reporting, and village financial accountability.

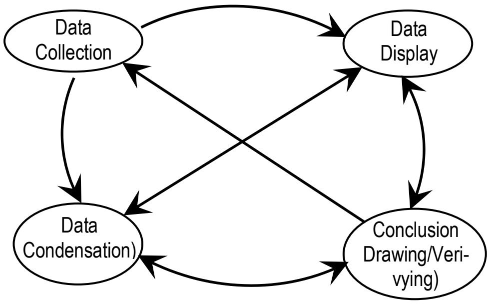


Figure 1. Data analysis of interactive model (Miles Huberman & Saldana, 2014)

The analytical method used an interactive approach that has three steps. First is data condensation. It was worked by focusing, simplifying, abstracting, and transforming data based on all parts of written field notes, interview transcripts, documents and other empirical material. Second is displaying data. It was to see the overall picture of research by trying to make instructions, tables, graphs, and others. The data were arranged in a relationship pattern so that it can be easily understood. Third is drawing or verifying conclusions. This final step was to draw conclusions or verify the research finding from qualitative research. It is expected to be new findings that have never existed. This finding can be in the form of an abstract object description to clear one after the study.

## RESULT AND DISCUSSION

### Profile of Pranggang Village

Pranggang village is in the administrative area of Plosoklaten district, Kediri regency, East Java province. The geographical location is at coordinates -7.8479, 112.1738, and at 222 m above sea level. The annual rainfall reaches 1,902 mm with an average of 148 rainy days. The size area of Pranggang village reaches 10.56 square km.

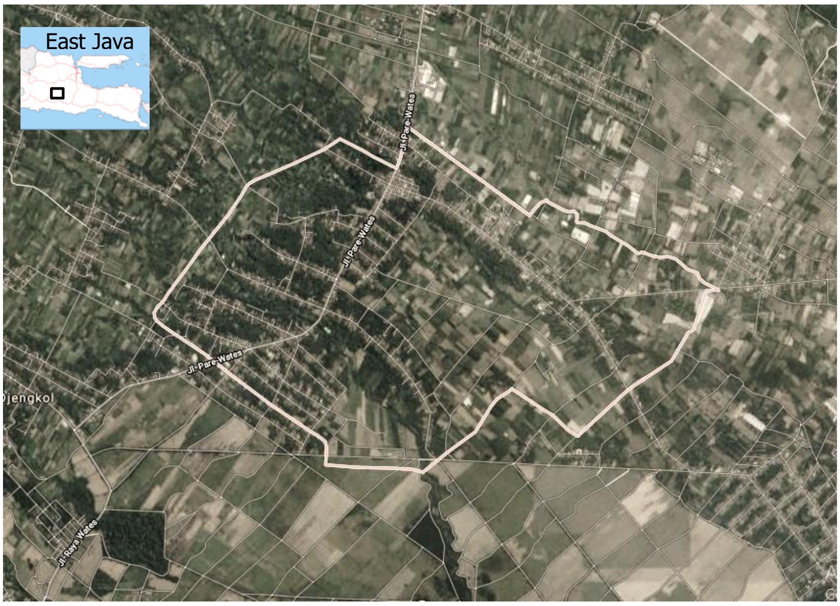


Figure 1. Map of Pranggang village (Source: google map)

The Pranggang village is located on the main road between Pare and Wates districts, or as alternative access from Surabaya to Blitar regency. Road infrastructure is in adequate condition to support socio-economic life and rural development. In the Plosklaten district, two villages are classified as *kelurahan* (a village that features urban attributes), namely Brenggolo village (capital of the district) and Pranggang village. This advantage can be understood because the Pranggang village has adequate urban facilities such as electricity, telecommunications, education, and the existence of a permanent market.

The economic life of the village develops from agriculture activities, especially food crops. The village has 132 ha of rice fields and 761 ha of non-rice fields. The population reaches 8,804 people or 2,374 families. The population is 4,442 men and 4,362 women (Plosoklaten in Figures, 2019).

Pranggang village has abundant natural resource potential. The soil is characterized by high fertility, with alluvial soil parent material from the eruption of Kelud, which is located less than 50 km from Pranggang village. Abundant water resources to support rice farming and irrigation. Villagers seek freshwater fisheries and koi fish. Water source tourism is also beginning to be known by the surrounding areas and presents photo spots that are very interesting and instragamable.

The development progress of Pranggang village was also contributed by the village funding policy. In 2018, the village finance received village owned revenue (PAD) of 755 million, village fund allocation (ADD) of 497 million rupiahs, and fund sharing/grant of 162 million rupiahs. The magnitude of revenue of the Pranggang village is the highest compared to other villages in the Plosoklaten district (Table 1).

Table 1. Village Finance Revenue in Plosoklaten District, 2019

| Village | Village Owned Revenue (PAD) | Village Fund Allocation (ADD) | Fund Sharing /grant |
|---|---|---|---|
| | ........... million rupiahs .......... | | |
| Gondang | 518.9 | 363.1 | 709.8 |
| Kayunan | 196.2 | 367.5 | 403.8 |
| Panjer | 171.3 | 301.3 | 273.3 |
| Jarak | 411.8 | 533.4 | 101.8 |
| Sepawon | 50.0 | 465.0 | 167.0 |
| Plosokidul | 458.0 | 378.3 | 661.0 |
| Brenggolo | 752.9 | 417.6 | 199.4 |
| Plosolor | 390.0 | 367.0 | 118.0 |
| Wonorejo Trisulo | 215.0 | 430.0 | 253.0 |
| Pranggang | 755.0 | 497.0 | 162.0 |
| Punjul | 647.0 | 456.0 | 170.0 |
| Klanderan | 574.0 | 353.0 | 66.0 |
| Donganti | 264.0 | 287.2 | 355.0 |
| Kawedusan | 997.2 | 398.5 | 552.0 |
| Sumberagung | 478.0 | 498.0 | 60.0 |
| Total | 6879.3 | 6112.9 | 4252.1 |

Source: Plosoklaten in Figures (2019)

## Stakeholders Collaboration

Regional autonomy has opened opportunities for regional governments to develop regional policies appropriately. However, the implementation of the policy has not been maximized because local governments do not have adequate human resource capacity, particularly village government administrators. As a result, a lot of flaws or problems are reported in the implementation of development programs in the region. This is related to the lack of accountability of the village government which makes the implementation of regional autonomy ineffective and inefficient (Rozi et al., 2016).

The capacity of the village government is an important factor in achieving fiscal accountability. Several studies show the inability of the village government to carry out the planning, implementation and reporting of all existing regulations (Agiastuti & Suputra, 2016). The role of quality of human resources in village development is important (Kulla et al., 2018; Wakerkwa, 2016). This does not include the collaboration role of stakeholders to provide input or improve development activities.

This research found pieces of evidence of a lack of collaboration among stakeholders in the implementation of village development. Collaboration between the village government with the district, provincial and other government agencies found points of weakness in the field of supervision and coordination. The village government wants to work responsibly in carrying out activities in the scope of its authority without making mistakes. Village officials try to carry out standard operating procedures for work, however, this often does not operate with reality on the spot. Therefore, the village government needs to obtain consideration or idea by involving various stakeholders involved in the implementation of village autonomy, especially in village financial accountability.

Mashari, the Head of Pranggang Village stated as follows:

> "*Our role as leaders is to mobilize the community so that they can actively participate in developing the rural area and building mutual empowerment. For example, the community is required to actively participate in program planning, or be involved in planned activities to be carried out by the village*".

This statement shows that the Pranggang village government has tried to involve the community in the process of accessibility of rural development planning. This engagement process also leads the community to play an active role in the process of checks and balances and to raise public awareness in the development of the village for mutual benefit.

However, the involvement of the community and village government has not been sufficient to meet the need of rural development. The limited stakeholder involvement causes the accountability process to not run smoothly. External or wider stakeholder involvement should be immediately implemented to play an important role in assisting the village government in carrying out its duties and functions to become an independent village. Villages are required to have the ability and quality of human resources to manage their village resources properly. So far, the institutional regulations to meet the need of human resources and skilled workers in the village have not been fully conducted by the government. Stakeholders can collaborate to help the need of the village government, for example in technical guidance to improve the quality of human resources. The village government can involve the role of extension workers to broaden development insights, coach group strengthening training, or utilize information technology for rural development (Sabir et al., 2018) or increase entrepreneurial capacity in farm management (Umar et al., 2020).

In general, collaborative shareholders in Pranggang village have not been optimally utilized for supporting village fund management. According to (Overseas Development Administration, 1995), there are three categories of stakeholders. First is the existence of primary stakeholders. It is participation and functions carried out by the program manager and parties that are affected by program activities. In the village of Pranggang, they are the village government officials, the activity management team (TPK), and the community. Second is the existence of supporting stakeholders. They are universities, private sector, NGOs, or other government institutions. Their role does not yet fully function in supporting the management of village funds in Pranggang village. Third is key stakeholders. They are the ones who have the authority in regulation, legislation, or supervisory. This role is carried out by the village consultative body or community meeting forum.

## Government Accountability

The implementation of regional autonomy is expected to increase the efficiency, effectiveness, and accountability of the public sector in Indonesia (Christia & Ispriyarso, 2019). With autonomy, provincial or regent regions are required to look for alternative sources of development funding without reducing essential of continued assistance and revenue sharing from the central government. Region government continues to drive development in various sectors using public funds following the priorities and aspirations of the community.

Local governments need to pay attention to efficiency in the mechanism of development implementation. Efficiency is the ratio of costs incurred to financial revenues in village government development activities (Pangkey & Pinatik, 2015). The efficiency is commonly used to measure a certain income economically. The level of efficiency will be achieved if costs can be reduced and at the same time it produces increased revenue realization. A measure of efficiency can help to optimize the combination of input use or to produce a certain level of output at a lower cost. In other words, efficiency is the ability to produce as much output as possible from a given number of inputs.

Local governments carry out their functions effectively when supported in making decisions regarding budget expenditures in the public sector. Supports to the local governments are in the form of adequate financial resources from various sources such as local revenue (PAD), tax and non-tax revenue sharing, loans, and subsidies/assistance from the central government (Ferry et al., 2015; Hastuti, 2017). Meanwhile, to create an effective government, the government accountability should be established, including the village government. Villages must be prepared so that they can implement accountability in managing village financial budgets, including planning, implementation, and reporting (Fajri, 2015; Gayatri et al., 2017; Nafidah & Anisa, 2017; Riskasari, 2016).

Regulation of Home Affairs Ministry Number 113 of 2014 states that financial management by local governments must meet the following five step, as follows:

**Planning**. Planning is expected to meet the need and aspirations of the rural community. All activities funded by Pranggang village funds are programs to meet the need of the rural community as a priority for village development. The village development program uses funds effectively and efficiently as determined by the regent government. This was revealed by Tony as apparatus of Pranggang Village:

"*The planning process starts at the musyawarah dusun (hamlet meeting), to formulate what priority programs to be proposed. When the program has agreed by the hamlet community, the village head will propose it at the Musrenbangdes (village development planning consultation). Next, all stakeholders such as the village officials, the Village Consultative Body, community, and religious leaders will provide consideration, correction, or notes to all programs proposed from the village. The decision then made, perhaps programs from hamlet A or B, then will be agreed to execute* ".

Besides, Sumiati as one of the villagers of Pranggang village stated:

"*We are always invited by the village government in planning every program that will be carried out in the village. Thus, the people know any programs of the rural government will carry out. And that is by mutually agreed upon. We, as the community, give advice and submit what is needed for the village*. ".

This statement shows that the village government of Pranggang at the planning step conducted the principle of community involvement and transparency. The principle of transparency is held in high esteem by the managers of the village fund program in Pranggang village. This mechanism is expected to receive feedback/responses from the community in improving development performance.

**Implementation**. The management of the village fund always reports the progress of the implementation of activities timely to the village officials, especially regarding physical activities and absorption of funds. Mashari as Head of Pranggang Village revealed that:

"*The implementation of the village funds operates under the instructions from the village treasurer to the activity management team (TPK), following the agreement of the village officials consultation prior to project implemented. Previously, the proposal had been prepared by the Village Financial Management Technical Implementation (PTPKD). The proposal contains details of the activity need budget as submitted by TPK to the village government. The village treasurer then carries out instructions based on the village officials' consultation and RAP*".

This was also revealed by Endayanti as treasurer of Pranggang Village:

"*All village funds are disbursed from the Village revenue and expenditure budget (the budget has been approved by the local government). The overall program of activities is funded by the village budget. Budget users then attach supporting data and proposal if available, such as notes, receipts, and other verification in the final report".*

Pranggang village has conducted the principle of accountability in implementing the utilization of village funds. This is done by adopting a monthly reporting system at each step of the activity. Thus, it can be seen how the responsibilities of the village fund manager have fulfilled the provisions in the report phase of the implementation of the village fund activities and the final activity report. The accountability for the implementation of the village fund program to higher levels of government is done through a periodic reporting system. The village fund implementation report consists of a preliminary report, a report on each phase of activities, a monthly report, and a final report prepared in activities compiled comprehensively.

**Administration**. This step is done by keeping records of expenditures and receipts regarding village fund activities. Moreover, the activity implementation team (TPK) produces an accountability report in the form of a bookkeeping report that will be submitted to the village treasurer.

Mashari as the Head of Pranggang Village said that:

"*The village treasurer has records and reports of bookkeeping of the expenditure and revenue of village funds. Then, the Activity Management Team (TPK) has an accountability report on financial activities. They reported to the head and secretary of the village. We will make improvements if necessary, and submit the report to the district government*".

This was justified by Endayanti as treasurer of Pranggang village. She revealed the way in conducting financial administration reports. It has been arranged starting from the revenue, the expenditure to allocation. Financial administration data are compiled in detail and ensured that there are no administrative mistakes. The financial administration report is prepared based on the amount of expenditure and revenue. The village government of Pranggang strives to comply with detailed provisions of government regulations as well as to facilitate the implementation of development activities

**Reporting**. Reporting on the financial administration process in Pranggang Village follows the technical guidelines of the existing rules and regulations. The activity implementation team (TPK) began to make a report based on the bookkeeping of village revenue and expenditure, which was then discussed in a joint meeting of all Pranggang village government officials. After obtaining the approval of the village government, the report is then submitted to the Kediri district government. Mashari as the Village Head explained as follows:

"*The financial reporting process by the activity management team (TPK) is prepared according to the existing guidelines. The report contains the realization of what has been spent according to needs. I as avillage head also evaluate and clarify data and findings. Evaluation is also carried out during the meeting forum discussing village funds. We want to ensure that improvements are made and the report is done correctly.* "

**Financial Accountability**. This step is the responsibility of the financial administration of village funds that are arranged properly. The report encloses all evidence of expenditure sourced from village funds. All stakeholders such as village officials, treasurers, and activity implementation teams participate in evaluating the management of village funds. The community also actively participates in providing input and correction so that the implementation of activities and reporting can be completed following the provisions.

Village funds are one of the main sources of income to drive village development. The use of funds should be accounted transparently to the community and regent government as an authorized institution in the village development. Besides, accountability to the community is carried out regularly every three months through an evaluation meeting for the implementation of village funds, which is facilitated by the village head. The following are the results of an interview with Mashari as the head of Pranggang Village, who stated:

"*Every three months, evaluation of the implementation of village funds is carried out by inviting community leaders, community empowerment agencies (LPM), and village consultative bodies (BPD). The evaluation is carried out to realize transparency in the management of village funds. This effort is expected to contribute input and advice to carry out responsible fund management.* "

The management of financial administration is carried out in Pranggang village. This can be said to be following the principle of accountability, as the result of an interview with Endayanti as the treasurer of the village as follows:

"*The village head and the village treasurer withdrew the village funds from the bank, and then give them to the treasurer of the activity management team (TPK). The TPK treasurer then reallocate the budget to the village treasurer to support village government activities.* "

The statement shows that the accountability of the implementation of village funds in Pranggang Village has carried out the principle of accountability. Village fund management has also implemented accountability in financial administration correctly. That is all expenses originating from village funds should be accompanied by evidence. The evaluation of the implementation of the village fund management program also involves the community to actively participate in providing input and correction through reciprocity between village officials, treasurers, and the management activity implementation team.

The accountability is a process carried out to account for the management of resources and the implementation of policies entrusted to the reporting entity in achieving the objectives that have been set regularly. Public accountability is a principle that guarantees that every activity carried out by the village government can be openly accounted for all levels of society (Nieto et al., 2015). Thus, accountability is a manifestation of the obligation to be responsible for managing and controlling resources and implementing budget policies to achieve the objectives of the village government. The principle of accountability determines that every activity and the result of village administration activities should be accountable to the village community and government officials following statutory provisions.

The Pranggang village government has also posted detailed APBDes budgeting on the activity information board and website. This is done to increase mutual trust among the village government and the community in the implementation of the village government, as well as increasing community participation in rural development.

Furthermore, the Pranggang village government has carried out procedural accountability of the village budget and village funds to the community based on Home Affairs Ministerial Regulation number 113 of 2014 in managing the village government finances. Furthermore, social accountability has been applied in various forms of effective interactions between the community and the village government. Social accountability initiatives need to involve state actors (village government) and the community, with a focus on the interface and partnership between them. Social accountability will find effective and significant results when citizens, media and bureaucrats have an incentive to act (Ackerman, 2005).

Malena et al. (2004) said that the media plays an important role in promoting social accountability. In many countries, independent media are the main force in informing and educating citizens, monitoring government performance, and exposing inappropriate policies. Local-level media (in particular, private and community radio) provide important tools that grass-root citizens can voice their opinions and discuss public issues. A common element of successful social accountability initiatives is the strategic use of traditional and modern media uses to raise awareness about public issues, disseminate findings, and create platforms for public debate.

On the other hand, vertical accountability also runs where the village government has reported responsibility report regularly to the regent/city government. Meanwhile, horizontal accountability is reported by the village head or budget user in the village consultation forum at the end of the year both verbally and administratively. According to Mitchell et al. (1997) and Nieto et al. (2015), stakeholders play a role in developing ideas for managing organizations from the highest to the lowest level that is considered capable of providing the power of legitimacy and urgency for the public interest. Furthermore, Imawan et al. (2019) stated that the village government must improve the administration system and increase the participation of village representative bodies to gain legitimacy. Improving the quality of human resources in the village requires stakeholder involvement and collaboration.

The capacity of civil society actors is another key factor of successful social accountability. The level of Civil Society Organizations (CSOs), the extent of their membership, technical skills, and advocacy can contribute more value to mobilizing and using the media effectively. Their legitimacy, representation, level of responsiveness, and accountability to members are at the core of the success of social accountability activities (Malena et al., 2004). Open collaboration has evolved as a new form of innovation created in the public sector. Government organizations use collaborative to create or contribute to public sector innovations with the help of external and internal problem solvers (Mergel, 2015).

The success of social accountability initiatives also depends on the capacity and effectiveness of the government. Government capacity can influence the success of social accountability initiatives. The government may also require capacity building investments, including the ability to produce records and accounts; the existence of conventional horizontal accountability mechanisms; the effective delegation of authority and resources; the will and capacity to build partnerships or coalitions. Social accountability will develop through a political or administrative culture that respects the notion of honesty, accountability, and equality in the public sector. This can be overcame through a computerized accounting system and increasing the intensity of village representatives' deliberations.

## CONCLUSION AND SUGGESTION

The results of this study indicate collaborative stakeholders in Pranggang village and community participation in managing village funds. Stakeholders involved in collaboration with the Pranggang village government need to have a contribution through the availability of resources, organizational and institutional regulatory mechanisms. Efforts are needed to improve the quality of human resources so that the realization of village government accountability goes well by involving provincial, regent and district governments.

The communication among stakeholders needs to be built to create effective collaboration. The scope of collaborative stakeholders covers the range of coordination between the village, district, and regent governments or with other government institutions so that planning and management of village development are carried out appropriately.

Collaborative stakeholders play a positive role in bringing about village accountability in managing village funds. This role also enables increased community participation in evaluating program activities, and increasing efficiency and effectiveness in the accountability of the village financial management sector. Moreover, the Pranggang village government has carried out procedural accountability of village funds to the community based on Regulation of Home Affairs Ministerial number 113 of 2014.

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# Visitors' satisfaction and development strategy of agrotourism: evidence from Semarang, Indonesia

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**ABSTRACT**

Visitor satisfaction is fascinating to learn because this is always a significant positioning in developing tourism destination.This study aims to analyze visitor satisfaction and formulate the agrotourism development strategy. The research survey was conducted in Purwosari Agrotourism, Mijen District, Semarang City, Indonesia. A total of 100 visitors and 20 people were purposively selected to address research objective. Visitor satisfaction is evaluated using the 7P marketing mix approach. The analysis method uses the Importance Performance Analysis and Customer Satisfaction Index to analyze visitor satisfaction; and Strength, Weakness, Opportunity, and Threat (SWOT) analysis to formulate development strategy. The results showed the location, transportation, promotion, and physical evidence (parking area, toilets, and information boards) are the main priority attributes of improvement. The response of visitors was in the satisfied category with a total Satisfaction Index of 73.39%. The development strategy of Purwosari Agrotourism shows the SO (strength and opportunity) strategy approach, which means being in a favorable position with aggressive strategy recommendations. The strategy includes the innovation of tourism products, collaboration with other tourism objects to create tour packages, and expand product marketing networks.

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## INTRODUCTION

Tourism at the international and national level continues to experience growth. This can be seen from the statistical calculations for 2017-2019 which show that the contribution of tourism to Indonesia's GDP increased from 4.11%; 4.50% to 4.80% (Kementrian Pariwisata dan Ekonomi Kreatif, 2019). Today, tourism development offers many new destinations with unique concepts that can attract tourists to visit (Budiasa, 2011). Nature tourism is one of the type of tourism that always attracts tourist from various ages such as agrotourism. The concept of agrotourism is utilizing natural resources with the main attraction such as beautiful natural scenery and nuances of beauty. The definition of agrotourism according to Sznajder et al. (2009) is a recreation that brings tourists to agricultural or farm area with tourist services for recreational, educational, and entertainment purposes. Agrotourism can provide food, beverage, rooms, ranch activity, and sport activity. Agrotourism is a combination of tourism and agriculture. The existence of agrotourism has many positive impacts on social and economic aspects corresponding to increasing more job opportunities as well as the community income and local own-source revenue. Cooperation between agriculture and tourism is one of the steps undertaken to create new jobs, improving the living standards of the local, creating a sustainable economy, and forming a potential market for local agricultural products (Han et al., 2020). The community relation is also getting along in harmony. Accordingly, it is important to do development by focusing on the image of agrotourism that is closely related to local potential and culture (Utama & Junaedi, 2019). According to Nugroho et al. (2018), planning at the local level of tourism need a quality management service, participation, and empowerment of the local people. This includes efforts of (i) developing of infrastructure to meet environmental conservation, (ii) building governance to gain a positive experience and well-being, (iii) integrating the tourism promotion through the product development and market segmentation, and (v) interpreting to offer the education of cultural and environmental conservation. Meanwhile, Prasetyo & Hariani (2018) state that farmers have contributed to advancing the agrotourism in Batu, with the role to continue to grow the services and intensity for managing demand from outside the region.

Attractions with the agriculture theme in the city of Semarang also experienced growth. Semarang city agriculture office is the main institution in the effort to develop agrotourism by carrying out the development of two of the four planned agrotourism programs. The first agrotourism going under the name Cepoko agrotourism was inaugurated in 2017, which then continued with the opening of the second agrotourism in early 2019, i.e. Purwosari. Purwosari agrotourism offers attractions in various products such as fruit orchards, flower gardens, hydroponic vegetables, and greenhouse plants. This agrotourism officially began operating in 2019 and has received various visits from schools to institutions, or the visit of a state official. According to the manager, Purwosari agrotourism has not been widely known by the public because of no intense marketing activities. Thus, the number of visitors is relatively small compared to Cepoko agrotourism. Data in November 2019 were only 385 people in Purwosari agrotourism while visitors in Cepoko agrotourism were 1,111 people.

Purwosari agrotourism requires an appropriate marketing strategy to introduce this agrotourism to the wider community. For marketing activities to run well and fulfilling the market target, the company or organization can identify the needs and expectations of consumers (Perreault, McCarthy, & Cannon, 2006). The identification can be done by examining the visitors' experience of the products and services offered. The positive experience of tourists on the products, services, and other resources offered can provide opportunities for attractions to bring in potential tourist visits (Elvera, 2020). This can happen because of the recommendations by word of mouth that are often used as a reference for people to have decisions to visit. Tourism development requires an appropriate marketing mix strategy 7P (product, price, place, promotion, people, process, and physical evidence) because of tourism offering products and services (Lisarini & Ningtyas, 2014). The results of the study from the visitors' side can be used as ideas in determining development plans that can be applied in the future. According to Fitrianti et al. (2015), the development of attributes of a tourist attraction is done by looking at the attribute needs of visitors so it will achieve high satisfaction.

The purpose of this study is to analyze visitors' satisfaction based on 7P marketing mix variables (product, price, place, promotion, people, process, and physical evidence) and formulate the Purwosari agrotourism development strategy.

## RESEARCH METHOD

The research was conducted in Purwosari agrotourism, Mijen district, Semarang City between January to March 2020. The site selection was done deliberately with the consideration that Purwosari agrotourism is the second agrotourism recently developed by the Ministry of Agriculture, Government of Indonesia. This study further expected to imply the marketing management and development of Purwosari agrotourism.

The study was conducted by the survey method with the interview to respondents of agrotourism visitors. The respondent sample determined by non-probability sampling with accidental sampling and quota sampling techniques. Accidental sampling is a technique of taking samples spontaneously or coincidentally so that anyone met and following research needs selected as a respondent. The determination of the number of samples refers to quota sampling. The number of samples was determined first followed by the criteria of respondents. The quota sampling was chosen because the number of samples could not be determined through a formula if the population or sampling frame was unknown (Juliandi et al., 2014). The respondents were 100 visitors who are more than 17 years old that came to Purwosari agrotourism. The visitors were assumed to have the capability to give opinion and judgment about the destination.

In the second research objective, the research sample used a non-probability sampling approach with a purposive sampling technique. The selection of subjects is adjusted to the required qualifications or research objectives. Data collection in this study used key persons of 20 people. They consisted of two employees of Purwosari agrotourism Office Technical Implementation Unit (UPTD), two employees from UPTD of agriculture service garden, two people managing the agrotourism estate, two leaders of surrounding community, two community members and 10 other people are agrotourism visitors.

Data collection used interview technique, questionnaires, and observations. Attributes to the questionnaire questions totaled 30 items on a closed questionnaire for satisfaction analysis and open for the development strategy.

Analysis of visitor satisfaction can be measured by the Importance Performance Analysis (IPA) and Customer Satisfaction Index (CSI) approaches. IPA is an analysis that aims to determine the extent of visitors' expectation or importance and the assessment of agrotourism performance. IPA will show the level of conformity (Tki) which is a score comparison of the performance evaluation attribute to i (Xi) with the importance of attribute to i (Yi). The average level of performance is

$$Xi = \sum Xi / n$$

and the importance level of

$$Yi = Yi / n$$

which n is the number of respondents. The importance and performance of each attribute are then illustrated in a Cartesian diagram consisting of four quadrants. The value of the X-axis (horizontal) is the average performance and the Y-axis (vertical) is the average of importance which is then compared with k, namely the number of factors that affect visitors' satisfaction.

The next analysis is CSI which aims to measure satisfaction in percent. The measurement phase of the analysis is according to Anggraeni et al. (2015): (i) calculating the weighted factor (weighted importance factor) by making the average value of the importance in percent units; (ii) calculate the weighted score (TWS), which is the product of the average performance value of each attribute and the importance weighting factor of each attribute; (iii) calculate the weighted total or total weighted of all attributes; (iv) calculate the satisfaction index by means of a total weighted score divided by a maximum scale of 5 and multiplied by 100%; (v) see overall satisfaction in the CSI scale table (very satisfied = 81-100%), (satisfied = 66-80.99%), (quite satisfied = 51-65.99%), (less satisfied = 35-50.99%), and (not satisfied = 0-34.99%).

The preliminary development strategy formulation used an explorative approach with a SWOT analysis method by having depth interview with the key-persons. SWOT analysis is a method that analyses strengths, weaknesses, opportunities, and threats of agrotourism which are then used in the form of Internal Factor Analysis Summary (IFAS) tables and External Factor Analysis Summary (EFAS). Determination of strengths, weaknesses, opportunities, and threats based on the theory in the book and supported by in-depth interviews with agrotourism managers.

The strengths are largely the uniqueness of nature and culture or human creation and good road access. Weaknesses generally come from human resources. Opportunities can be obtained from government commitments; the increasing trend of agrotourism and tourist attraction. Threats can come through competition with other tourist objects and low accessibility. The results of the total score in the IFAS-EFAS table are then used in making a SWOT analysis diagram that determines where the position of agrotourism is. The coordinate X and Y were obtained from the strength-weakness and the opportunity-threat score, respectively. The SWOT diagram divides the position of agrotourism into four quadrants. Quadrant I describes a favorable situation, agrotourism can use its strengths and opportunities. Quadrant II represents that agrotourism faces threats but it has internal strength. Quadrant III shows that agrotourism faces enormous opportunities and internal weaknesses at the same time. Quadrant IV indicates a very unfavorable situation where there are various internal threats and weaknesses. SWOT analysis matrix provides four alternative possible strategies namely Strength-Opportunity (SO), Weakness-Opportunity (WO), Strength-Threat (ST), Weakness-Threat (WT) strategies.

## RESULT AND DISCUSSION

### Characteristics of Respondents

Characteristics of respondents are divided into five categories of characteristics namely age, sex, place of residence, last education, occupation and income level (Table 1).

Table 1. Characteristics of Respondents

| Variable | People[a] |
|---|---|
| Age | |
| 18-27 years | 30 |
| 28-37 years | 18 |
| 38-47 years | 14 |
| 48-57 years | 27 |
| 58-67 years | 10 |
| ≥68 years | 1 |
| Gender | |
| Female | 54 |
| Male | 46 |
| Place of Residence | |
| Semarang City | 77 |
| Semarang Regency | 1 |
| Outside Semarang Area | 18 |
| Outside Central Java | 4 |
| Education | |
| Elementary School | 2 |
| Junior High School | 6 |
| Senior High School | 48 |
| College | 43 |
| Other | 1 |
| Occupation | |
| Student | 14 |
| Employee | 23 |
| Civil Servant | 12 |
| Private Enterprise | 18 |
| Other | 33 |
| Income per month | |
| <1.0 million rupiahs | 7 |
| 1.0 – 2.9 million rupiahs | 30 |
| 3.0 – 4.9 million rupiahs | 28 |
| >5.0 million rupiahs | 22 |
| Have no income yet | 13 |

[a]Sample size 100 respondent

Based on the research that has been done, it is known that the majority of visitors aged between 18-27 years with several 30 people (30%). The majority of the next age visitors are in the age range 48-57 years as many as 27 people (27%). The highest number of ages shows that visitors who come can be said to be classified as the young generation, so some traits tend to prefer to explore or like trying new things. The second-highest number is visitors with an age range of 48-57years. Handayani (2016) stated that young people are highly interested in educational tourism because they have a strong enough drive to satisfy curiosity and explore various aspects when traveling.

The distribution of visitors by sex has a percentage that can be said to be quite balanced, namely 54 women (54%) and 46 men (46%). These results indicated that visiting a tourist attraction is one of the ways to fulfill people's needs and it can maintain people's mental health (Cheng, Jin, & Wong, 2014). The criteria by the respondent residence, the visitors mostly came from the city of Semarang with 77 people (77%).

The distribution of visitors when viewed from the level of education, the majority are high school education (SMA) as many as 48 people (48%). Higher Education places the second-highest percentage with a total of 43 people (43%). The criteria by the type of working visitors, the majority is who works in a private company as an employee of 23 people (23%). 18 people (18%) visitors are entrepreneurs and 18 people (18%) visitors are housewives. The majority income level of visitors is in the range of one million to 2.9 million rupiahs per month with a total of 30 people (30%) and followed by at the range of three million to 4.9 million rupiahs with a total of 28 people (28%).

### Importance - Performance Analysis

Measurement of Importance Performance Analysis (IPA) aims to see the level of assessment of the performance of agrotourism and the importance level of visitors in the form of scores. Overall attributes, the suitability level has a total percentage of 81.54%. A more detailed explanation can be seen in Table 2.

Conformity level (Tki) is a value that describes the level of visitor satisfaction with a particular attribute. The high percentage results show that there is little difference between the value of importance and performance, so it can be said that visitors are satisfied with the performance of agrotourism because it has approached the level of importance. Fitrianti et al. (2015) says that the high percentage of the conformity level is directly proportional to visitor satisfaction. Thus, the higher the level of conformity, the higher the satisfaction of the attribute. A low level of conformity occurs because of the difference between performance and importance. Therefore, the less difference between the performance score with the importance, the higher the level of suitability. Overall, the suitability level values for all attributes showed an average of 81.54%. According to Iswari et al. (2015), the level of conformity that is said to be good is when the value exceeds the average value of the suitability level to close to 100%.

Table 2. The Results of The Calculation of Performance Appraisals and Visitor Importance

| Marketing Mix | No | Indicator | Xi (score) | Yi (score) | Tki (%) | Average Xi | Average Yi |
|---|---|---|---|---|---|---|---|
| Product | 1 | Purwosari agrotourism has various types of fruit | 379 | 446 | 84.98 | 3.79 | 4.46 |
| | 2 | The size of guava fruit is medium | 401 | 413 | 97.09 | 4.01 | 4.13 |
| | 3 | The texture of guava fruit is crunchy | 377 | 420 | 89.76 | 3.77 | 4.20 |
| | 4 | Crystal guava fruit has a sweet taste | 367 | 471 | 77.92 | 3.67 | 4.71 |
| Price | 5 | Affordable fruit prices (budget≥prices) | 391 | 439 | 89.07 | 3.91 | 4.39 |
| | 6 | The price of fruit match with the quality | 377 | 454 | 83.04 | 3.77 | 4.54 |
| | 7 | Fruit prices are affordable from other places (≤15 thousand rupiahs) | 325 | 425 | 76.47 | 3.25 | 4.25 |
| | 8 | Visitors get the bonus or discounted price for fruit purchases | 306 | 440 | 69.55 | 3.06 | 4.40 |
| Place | 9 | Agrotourism location is strategic (close to the main road) | 313 | 463 | 67.60 | 3.13 | 4.63 |
| | 10 | Agrotourism can be visited by large/small buses, public transportation, private vehicles, online transportation | 362 | 464 | 78.02 | 3.62 | 4.64 |
| | 11 | Road condition to the location is smooth and wide | 330 | 457 | 72.21 | 3.30 | 4.57 |
| | 12 | Agrotourism is located in the side of the road and there is available signpost | 351 | 454 | 77.31 | 3.51 | 4.54 |
| Promotion | 13 | Agrotourism uses 5 aspects of promotion (sales promotion, advertising, human resources, public relation, direct sales) | 329 | 464 | 70.91 | 3.29 | 4.64 |
| | 14 | The Purwosari agrotourism uses print media, online media (website) and social media (Facebook, Instagram, line, twitter) for promotion activity | 333 | 448 | 74.33 | 3.33 | 4.48 |
| | 15 | The information about this Agrotourism is available on online news sites and google maps | 378 | 445 | 84.94 | 3.78 | 4.45 |
| | 16 | Direct fruit picking tourist facilities is equipped with complete tools (cutter, basket, bamboo cap) | 347 | 463 | 74.95 | 3.47 | 4.63 |
| People | 17 | Staff performance (friendly, polite, neat) | 422 | 461 | 91.54 | 4.22 | 4.61 |
| | 18 | The speed and alertness of officers is fast | 418 | 455 | 91.87 | 4.18 | 4.55 |
| | 19 | The staffs are able to be interactive, informative, conversant | 408 | 452 | 90.27 | 4.08 | 4.52 |
| | 20 | Staffs' information on booking procedures and agrotourism is clear | 418 | 457 | 91.47 | 4.18 | 4.57 |
| Process | 21 | The tours are suitable for what they offered | 369 | 444 | 83.11 | 3.69 | 4.44 |
| | 22 | Agrotourism entry procedures are easy (no entry fee) | 407 | 427 | 95.32 | 4.07 | 4.27 |
| | 23 | Fruit payment is easy and fast | 387 | 457 | 84.68 | 3.87 | 4.57 |
| | 24 | Place booking procedures is easy (by telephone) | 356 | 440 | 80.91 | 3.56 | 4.40 |
| Physical Evidence | 25 | Parking space can accommodate big or small buses, cars, the motorcycle also surface textures shall be stable, anti-slip and shall have hard surfaces (paving/concrete/asphalt) | 360 | 468 | 76.92 | 3.60 | 4.68 |
| | 26 | The toilet is clean and comfortable | 353 | 467 | 75.59 | 3.53 | 4.67 |
| | 27 | The rubbish bin is easy to find | 368 | 464 | 79.31 | 3.68 | 4.64 |
| | 28 | Worship facility is feasible (provide ablution place, prayer tools, footwear) | 373 | 463 | 80.56 | 3.73 | 4.63 |
| | 29 | Directions sign at agrotourism is available | 334 | 459 | 72.77 | 3.34 | 4.59 |
| | 30 | Plant info board is easy to find | 374 | 446 | 83.86 | 3.74 | 4.46 |
| | | Average | | | 81.54 | 3.67 | 4.51 |

Table 2 shows 7P variables (product, price, place, promotion, people, process, physical evidence) can represent indicator attributes that need priority to be improved. In the product variable, the fruit flavor gets the lowest suitability value (77.92%) so it needs the manager's attention. Based on the research in the field, several visitors stated that the crystal guava products were relatively less sweet. According to the manager, seasonal factors such as rainfall can affect the taste of crystal guava.

Meanwhile, fruit price discounts or purchase bonuses on variable prices need attention. The opening price of crystal guava fruit is 15 thousand rupiahs per kg. For the purchases of at least 5 kg, buyers will get a discount price of 12.5 thousand rupiahs per kg. The place variable becomes an important attribute to consider the agrotourism location. Purwosari agrotourism is located not too close to the main road so that agrotourism visitors certainly need a personal transport mode to reach the location. The availability of public transportation needs to be considered for tourists who do not have private vehicles. Chin et al. (2018) stated that one of the important factors that can influence the decision to visit a tourist attraction is the availability, affordability, and convenience of transportation or accessibility to tourist sites. The amenity will increase the opportunity of a higher visit to a tourist destination. Febinanda et al. (2018) said that tourist satisfaction is significantly influenced by price variable. However, it is not affected by the destination image and amenity.

The promotion method variable is an attribute that must be transformed immediately in the Purwosari agrotourism. The management already has a correct concept but needs to be supported by all-out promotion to bring in more visitors to come. Today, the online promotion approach is widely used by businesses organizations. The promotion of tourism objects is an important part of the planning and developing a tourist destination in the region (Nugroho et al., 2018). Adhanisa & Fatchiya (2017) stated that promotion using online media is now a very promising way that makes it easier for people to communicate and interact for developing promotional activities.

In the people variable, staff interaction and knowledge are attributes that must be improved even though the overall suitability level of this variable is on average above 90%. According to (Setiawan, 2016), the success of the tourism industry cannot be separated from the role of skilled and knowledgeable workers both in quality and quantity. In the process variable, an attribute that must be considered is the ease of the procedure for ordering a place by visitors. Physical evidence variables display important attributes for space management at tourist sites related to indicators such as direction signs to the parking area, entrances, offices or information desks, gardens and flower gardens, etc.

The next analysis is to show which attributes become the main priorities for improving tourism management concerning the 7 variables using the Cartesian diagram. The diagram shows the mapping of importance and performance relation which are divided into four quadrants (Figure 1).

The main priorities (quadrant I) in increasing visitor satisfaction in the Purwosari agrotourism include location, transportation, promotion, fruit picking facilities, parking area, toilets, and the directions sign. Accessibility is one of elements of tourist attraction that must be developed sustainably. Accessibility is the level of tourists' convenience in transferring from one to another place including time, cost, location, and transportation. Those components are very important to lead the comfort of tourists in coming across tourist attractions. The quadrant position shows the order of priority for each attribute to increasing visitors' satisfaction and also supports the development of agrotourism. The study of Fitrianti et al. (2015) in the Harau valley tourism area reveals the priority attributes such as tourist sites, information boards, alertness, and hospitality of officers.

Quadrant II comprises attributes corresponding to the visitors' importance that should be maintained. These attributes are the taste of fruit, suitability of prices with fruit quality, the performance of the officer or guide includes friendliness, tidiness, speed, and interaction, availability of trash and attributes of worship facilities. The quality of tourism human resources plays a major role in providing services to tourists. The same results presented by Pratiwi & Yuliawati (2019) that service attributes on Agro Hortimart such as friendliness, neatness, responsiveness have good performance is classified into quadrant II.

Quadrant III contains attributes in low priority categories such as the price of fruit, discounts, or bonuses of purchasing fruit, promotional media, and the booking procedures for large events for school or community events. Although grouped as a low priority, these attributes should not be ignored because they can enhance an increase in service performance and visitor satisfaction. The tourism manager needs to focus on the performance of each attribute including the position of quadrant III which has a low priority to prevent the shift of attributes toward quadrant I.

Quadrant IV is also called an excess quadrant. Consideration of these attributes is also important so that the performance that has been done is not in vain (as needed) and avoids waste both in terms of cost and resources. A research from Bismantoro et al. (2018) also found that accurate information about flora and fauna was in quadrant IV which is a quadrant that performance exceeds the Importance of visitors.

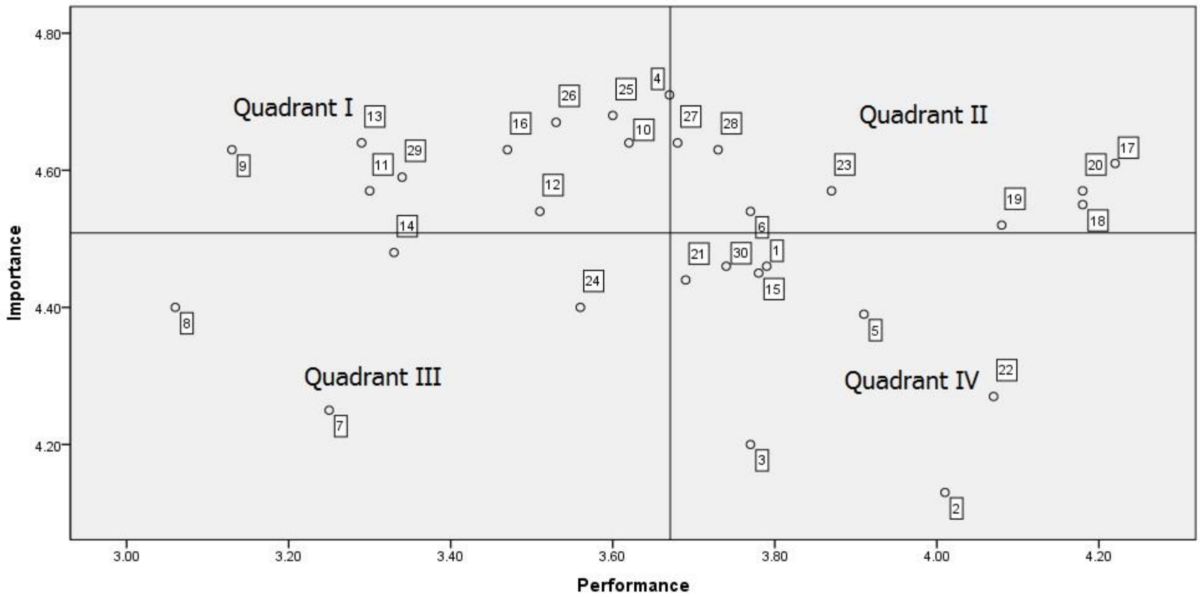


Figure 1. Cartesian diagram mapping

**Quadrant I (Top Priority)**
9 = Agrotourism location
10 = Availability of transportation
11 = Road conditions to the location
12 = Ease of reaching locations
13 = How promotion is carried out
16 = Direct fruit picking tourist facilities
25 = Parking space availability
26 = Cleanliness and comfort of the toilet
29 = Availability of Information board (directions board)

**Quadrant II (Maintain Performance)**
4 = Crystal guava fruit taste
6 = Price matched with quality
17 = Friendliness, courtesy and tidiness of the officer / guide
18 = The speed and alertness of officers
19 = Staff interaction and knowledge
20 = Clarity of information
23 = Fruit payment (easy and fast)
27 = Availability of rubbish bins
28 = Feasibility and comfort of worship facilities

**Quadrant III (Low Priority)**
7 = The price of fruit is more affordable than other places
8 = Discounted price / fruit purchase bonus
14 = Promotional media used
24 = Ease of place booking procedures

**Quadrant IV (Excessive)**
1 = Varied fruit types
2 = The size of guava fruit
3 = Texture of guava fruit
5 = Affordable fruit price
15 = Ease of getting agrotourism information
21 = Suitability of the tours offered
22 = Ease of entry into agrotourism procedures
30 = Availability of plant info boards

## Customer Satisfaction Index (CSI)

The value of the Total Weight Score (TWS) on CSI calculations is 3.6695. This total score is then divided by 5 which is the Likert scale used in the study, then multiplied by 100%. The result shows percentage satisfaction value of 73.39 (Table 3). Ramadhani et al. (2014) stated that average visitor was categorized as satisfied with the CSI value ranging from 66-80.9%. %. Based on these figure, it can be said that overall visitor satisfaction to all attributes in 7 variables is in the satisfied category. Field interviews also showed the results that 60% of visitors who came to agrotourism stated that they were satisfied with the experience of visiting agrotourism. The value of the Visitor Satisfaction Index in several tourist attractions such as the Aloe Vera Center Agrotourism has a CSI value of 78.54% (Prayudi et al., 2019) and the satisfaction value in Cepoko Agrotourism is 77.81% (Sembiring et al., 2020).

Table 3. The Calculations of Customer Satisfaction Index

| Attribute Number | Mean Score of Importance (MSI) | Weighting Factor (WF) | Mean Score of Performance (MSP) | Total Weight Score (TWS) |
|---|---|---|---|---|
| 1 | 4.46 | 0.0330 | 3.79 | 0.1250 |
| 2 | 4.13 | 0.0305 | 4.01 | 0.1224 |
| 3 | 4.20 | 0.0311 | 3.77 | 0.1171 |
| 4 | 4.71 | 0.0348 | 3.67 | 0.1278 |
| 5 | 4.39 | 0.0325 | 3.91 | 0.1269 |
| 6 | 4.54 | 0.0336 | 3.77 | 0.1265 |
| 7 | 4.25 | 0.0314 | 3.25 | 0.1021 |
| 8 | 4.40 | 0.0325 | 3.06 | 0.0995 |
| 9 | 4.63 | 0.0342 | 3.13 | 0.1071 |
| 10 | 4.64 | 0.0343 | 3.62 | 0.1242 |
| 11 | 4.57 | 0.0338 | 3.30 | 0.1115 |
| 12 | 4.54 | 0.0336 | 3.51 | 0.1178 |
| 13 | 4.64 | 0.0343 | 3.29 | 0.1129 |
| 14 | 4.48 | 0.0331 | 3.33 | 0.1103 |
| 15 | 4.45 | 0.0329 | 3.78 | 0.1244 |
| 16 | 4.63 | 0.0342 | 3.47 | 0.1188 |
| 17 | 4.61 | 0.0341 | 4.22 | 0.1438 |
| 18 | 4.55 | 0.0336 | 4.18 | 0.1406 |
| 19 | 4.52 | 0.0334 | 4.08 | 0.1363 |
| 20 | 4.57 | 0.0338 | 4.18 | 0.1412 |
| 21 | 4.44 | 0.0328 | 3.69 | 0.1211 |
| 22 | 4.27 | 0.0316 | 4.07 | 0.1285 |
| 23 | 4.57 | 0.0338 | 3.87 | 0.1308 |
| 24 | 4.40 | 0.0325 | 3.56 | 0.1158 |
| 25 | 4.68 | 0.0346 | 3.60 | 0.1246 |
| 26 | 4.67 | 0.0345 | 3.53 | 0.1219 |
| 27 | 4.64 | 0.0343 | 3.68 | 0.1262 |
| 28 | 4.63 | 0.0342 | 3.73 | 0.1277 |
| 29 | 4.59 | 0.0339 | 3.34 | 0.1133 |
| 30 | 4.46 | 0.0330 | 3.74 | 0.1233 |
| Total | 135.26 | 1.0000 | 110.13 | 3.6695 |

**Development Strategy Formulation**

Purwosari agrotourism development strategy is analyzed using Internal Factor Analysis Summary (IFAS) and External Factor Analysis Summary (EFAS). According to Guyana (2013), internal factors consists of strengths and weaknesses including such elements as products, sales, production, marketing, management, research, and development. Meanwhile, external factors include outside elements in the scope of opportunity and threat such as trends, economics, demographics, technological changes, policies, competitors, social, and culture. The identification of internal factors in Purwosari agrotourism is presented in Table 4.

Table 4 shows that the main strengths of the agrotourism are the availability of attractive tourist objects and facilities such as orchards and flower gardens as well as affordable prices for fruit products and entrance tickets with a score of 0.321. According to Priyono & Astuti (2016), agrotourism has the main asset in attracting the interest of visitors by selling authenticity, uniqueness or characteristics, comfort, and natural beauty. Thus, natural resource factors are the main assets in developing agrotourism.

The factors indicating the weakest side of Purwosari agrotourism are promotion and the availability of information boards (directions sign) with the largest score of 0.190 and 0.189, respectively. The promotion of Purwosari agrotourism was handled quite well although it has not been maximized. Meanwhile, the smallest score of the weakness is the relatively far location from the main road with a value of 0.121. This is also found (Kurniasanti, 2019) in the Siam Citrus Fruit Agrotourism in which the major weakness is the absence of directions sign. This finding confirms the analysis of visitor satisfaction in which the availability of information boards or information becomes the priority attribute to be improved.

The highest score on the analysis of external factors (Table 5) on opportunities is 0.355 with a strategic factor of the agrotourism managed by the Ministry of Agriculture. It was the Ministry of Agriculture who initiated the development of the Gunungpati-Mijen area as a production center for crystal guava fruit in Semarang. This has contributed to the development of Purwosari agrotourism. According Gunawan (2016), the policy of local governments makes agrotourism areas become development areas. The next highest opportunity score is 0.340, exhibited by the existence of natural potential that supports the development of primary agrotourism product of crystal guava. Furthermore, the threat factor of Purwosari agrotourism is competition with surrounding attraction areas with the highest score of 0.203. The lowest score of threat factor is the risk of the shortage of water supply in the dry season. Although the agrotourism has prepared well in many places to irrigate crops. However, extreme drought might affect the growth of plants and vegetation around the agrotourism area.

The formulation of Purwosari agrotourism development strategy is carried out through the determination of the position of the agrotourism based on IFAS and EFAS. Based on Tabel 4 and 5, it can be calculated how development strategy formulated. The strength and weakness factor has a score of 1.512 and 1.023, respectively. The magnitude of the strength is greater than the weaknesses, indicating strength can overcome weaknesses (Fadlil et al., 2020). The difference between strengths and weaknesses generates an X-axis value of 0.489.

Table 4. The Analysis of Internal Agrotourism Factors (IFAS)

| Internal Factor | Weight | Rating | Score |
|---|---|---|---|
| Strength | | | |
| 1. Affordable prices for fruit products and entry tickets (free) | 0.097 | 3.300 | 0.321 |
| 2. Variety of types of fruit grown in gardens (guava, longan, passion fruit, durian, soursop, orange, breadfruit) | 0.084 | 3.300 | 0.277 |
| 3. The availability of attractive tourist objects and facilities (orchards, flower gardens, hydroponic greenhouses) | 0.103 | 3.100 | 0.321 |
| 4. Comfortable supporting facilities (halls, gazebos, religious facilities, toilets, parking area) | 0.095 | 3.000 | 0.285 |
| 5. Have an interesting photo spot | 0.095 | 3.250 | 0.308 |
| Total | | | 1.512 |
| Weakness | | | |
| 1. Lack of human resources (Employees) | 0.103 | 1.550 | 0.160 |
| 2. Limited number of fruits available | 0.090 | 2.050 | 0.185 |
| 3. Parking space is relatively less extensive | 0.079 | 2.250 | 0.178 |
| 4. Location is relatively far from the main road | 0.086 | 1.400 | 0.121 |
| 5. Information boards not yet available (direction sign, parking area, etc.) | 0.084 | 2.250 | 0.189 |
| 6. Promotion has not been maximized | 0.083 | 2.300 | 0.190 |
| Total | | | 1.023 |

Table 5. The Analysis of External Agrotourism Factors (EFAS)

| External Factor | Weight | Rating | Score |
|---|---|---|---|
| Opportunity | | | |
| 1. Owned and managed by the government (Ministry of Agriculture) | 0.100 | 3.550 | 0.355 |
| 2. Stand side by side with other tours | 0.102 | 3.000 | 0.307 |
| 3. Good access to the location (smooth road conditions, not crowded) | 0.087 | 2.250 | 0.196 |
| 4. Natural potential suitable for the development of the agrotourism | 0.105 | 3.250 | 0.340 |
| 5. Positive response from tourists | 0.101 | 2.700 | 0.273 |
| 6. Economic improvement for the surrounding community | 0.096 | 2.800 | 0.270 |
| Total | | | 1.742 |
| Threat | | | |
| 1. The occurrence of water shortages in the dry season | 0.092 | 1.600 | 0.147 |
| 2. Competition with other attractions at adjacent area | 0.064 | 3.200 | 0.203 |
| 3. Pests and diseases that can attack plants | 0.085 | 1.800 | 0.152 |
| 4. The condition of the road width to the location not supported | 0.094 | 1.700 | 0.160 |
| 5. Security facilities are inadequate so that more prone to stolen fruit | 0.074 | 2.350 | 0.174 |
| Total | | | 0.837 |

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On the external factor, the score of opportunity and threat is 1.742 and 0.837, producing a difference of 0.905 which represents the Y-ordinate number. Jatiningtias et al. (2018) stated that when the difference in the score of each factor exceeds 0, the company is in a positive position to overcome the weaknesses or threats that exist. Thus, the difference in scores found on external and internal factors is then illustrated in the X and Y axes in Figure 2.

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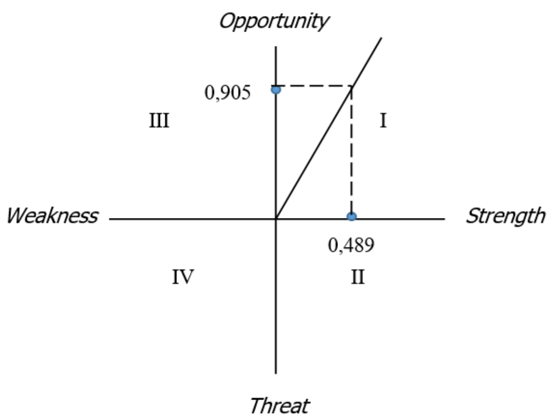


Figure 2. Agrotourism development position

Figure 2 shows that the IFAS-EFAS result of Purwosari agrotourism lays on quadrant I in the diagram. It means a quadrant with fast growth and or aggressive strategies, where it maximizes strength to take advantage of as many opportunities (strength-opportunities, SO strategies). Koesomowidjojo (2017) explained that quadrant I is a perfect strategic position because it is supported by adequate resources. This result was also found in previous studies by Sembiring et al. (2020) in the Cepoko Fruit Farm agrotourism.

**Development Strategy and Implementation**

The results of the analysis of the SWOT matrix thoroughly produce development strategy and implementation as follows.

**S-O Strategy**. SO strategy is a strategy that uses factors of strengths to take advantage of opportunities (quadrant I). Based on the SWOT matrix analysis, the following are alternative strategies to develop Purwosari agrotourism. First is the innovation of tourism products. According to Swastika et al. (2017), tourism should always commit to deploying innovations every time to survive and always attract visitors. Purwosari agrotourism already produced the innovation of the product of passion fruit with a lemongrass drink called 'marreh'. Marreh is one of the most-searched drinks by the agrotourism visitors so that often runs out of stock. Purwosari agrotourism can also produce juice drinks and chips of crystal guava.

Second is cooperation with tour operators. Purwosari agrotourism occupies a strategic location and integrated into space with the position of other adjacent object attractions. The management needs to develop cooperation by offering tour packages that integrate each tourism object. The promotion in the development of the agrotourism will produce benefits in creating the main product from the characteristics of each tourism.

Third is cooperation with the supermarket. The management of Purwosari agrotourism should collaborate in partnership to open up more expansive market opportunities, especially with supermarkets. Fruit and vegetable products from Purwosari agrotourism show superior quality, this can meet the quality requirements set by supermarkets.

**W-O Strategy**. W-O strategy formulation is a strategy that minimizes weaknesses by utilizing opportunities. The W-O strategy emphasizes more on promotional activities as follows. First, expanding the network of cooperation with various agencies and schools. One of way to create comfort for the agrotourism visitors is to collaborate with public transportation operators to support access into agro locations such as feeder buses or shuttle buses. According to Utama & Junaedi (2019), five elements should be fulfilled in the development of tourist areas, including attractions, facilities, infrastructure, transportation, and hospitality. Cooperation with schools in terms of educating agriculture is also important in the development of the agrotourism and the expansion of promotion activities.

Second is promotion using social media. Promotional activities should be carried out optimally by utilizing a variety of existing media. In addition to mouth communication, promotional activities using the internet or online media are now common, effective, and easy. Social media such as Facebook or Instagram are very helpful in promotional activities. It even can be done most simply and it is less expensive through the official website.

The third is collaborating with the community. The surrounding community can support the agrotourism management in services such as parking, farmers' markets, and security. The people who are involved do not need special qualifications to participate. A community can provide parking spaces in residents' homes when there is a big event. Besides, the community can also take part in the marketing activities of fruits and vegetable products. This is expected to have a positive impact on the economy of the surrounding community. The study (Hiryanto et al., 2017), after being involved with the management of Bejiharjo Tourism Village, the income of the people increased from one million to three million rupiahs per month

Fourth is organizing events as one of the branding efforts. Purwosari agrotourism has orchards as the main object, which is also equipped with supporting facilities to support the establishment of the agrotourism. The big size hall and a wide-open space can be used as a way to promote great events. According to Wibawanto (2015), organizing an event is one of the promotions to build an image (branding) for introducing a place. The event can lead to fulfill the objectives of tourism development, increase the number of visitors, and build public awareness and pride.

**S-T Strategy**. The S-T strategy is a strategy that utilizes power or strengths to deal with threats. The strategies are implemented through the following activities. First, maintain the concept and optimize tourism excellence. Since the beginning, Purwosari agrotourism has held the main concept of guava fruit-based tourism. This is in line with the opinion of Gunawan & Wahyu (2016) that companies must have certain strategies in surviving or managing strengths so it can be leading. Long & Nguyen (2018) also added that the natural environment is an important factor in natural tourism because it leads to characteristics of identity of a tourist attraction.

Second is involving the community in large agrotourism activities. Purwosari agrotourism is located around the residential neighborhood. Agrotourism should involve community participation in activities, especially large activities. This is a step in approaching the community so it is not to create a negative impression and to avoid social distrust. As stated by Saputra et al. (2019), the implementation of cooperation aims to achieve harmonious social conditions or avoid social turmoil.

Third is empowering the community. Based on the interviews with the Head of the Neighborhood Association, the majority of the community's work is laborers, entrepreneurs, housewives and some have main jobs as farmers. Community empowerment aims to increase the income of the surrounding community so that the community can meet a positive impact through the establishment of this agrotourism. Communities can participate in training or additional specific skills so that those with new skills can support the process of tourism management and development.

**W-T Strategy.** W-T strategy is also called a defensive strategy with on activities try to minimize internal weaknesses by avoiding external threats. The W-T strategy includes the following activities. First is ensuring the Standard Operating Procedure (SOP) running well. The management of Purwosari agrotourism is required to ensure SOP of cultivation of fruit plants established, and it can still produce optimally and stable. Unstable fruit production indicates a technical incompatibility between cultivation and SOP. Second is increasing the knowledge and skills of human resources. Improvements and updates on management and technology lead Purwosari agrotourism to a competitive and superior position. This requires ongoing updates including elements of human resources. Increased knowledge and skills need to be done so that there is no lagging and work objectives are achieved effectively and efficiently. The step of providing training or comparative studies is a basic thing that can be done.

## CONCLUSION AND SUGGESTION

The attributes become the main priorities for improvement Purwosari agrotourism management including location, transportation availability, road infrastructure conditions, ways to promote, direct-picking fruit facilities, toilets, and availability of information boards. The satisfaction index value is in the range of satisfied categories with a percentage of 73.39%. The strategy for developing Purwosari agrotourism is to use the SO (strength and opportunity) strategy approach. The strategy focuses on tourism product innovation, collaboration with tour operators, and innovations to open more broadly fruit product marketing.

It is suggested that managers of the agrotourism should prioritize several attributes to improve their performance. These attributes include location, promotion and supporting facilities such as parking areas, toilets, and information boards. Managers can cooperate with the municipal transportation office in the provision of public transportation as well as increasing road access to the agrotourism.

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# Investment feasibility and marketing of mangosteen commodity in Central Sulawesi, Indonesia

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**ABSTRACT**

The development of mangosteen agribusiness in the regions needs attention to benefit local economic development. This research aims to analyze the investment and marketing feasibilities of mangosteen commodity at Olumokunde Village, Poso Regency, Central Sulawesi, Indonesia. Research respondents, as many as 60 farmers, were determined through stratified sampling technique. Data collection was done through observations, interviews, questionnaires to respondents, and documentary study. Research results demonstrate that mangosteen farms meet investment feasibility. The research found that the indicator of net present value was 87.496 million rupiahs, the internal rate of return was 19.8% and the payback period was 10.95 years. Since its 7th year, the mangosteen farm business' amount of revenue has been higher than its operational costs. Also, the research reveals farm sensitivity on the changes of cost production, selling price, and mangosteen production. There are two models of mangosteen fruit marketing channel at Olumokunde: (i) direct marketing from farmers to consumers, and (ii) indirect marketing through fruit wholesalers. The mangosteen agribusiness development needs regional government intervention in the forms of facility and infrastructure requirement as well as supply chain strengthening in order to create large-scale, economical, and highly competitive farms.

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## INTRODUCTION

One of the very popular tropical fresh fruit commodities is mangosteen (*Garcinia mangostana* L.), also called "The Queen of Fruit" (Asmara et al., 2011) Mangosteen has typical tastes of sweet and sour, and a unique rind color of purplish red. Being consumed in the form of fresh fruit, almost all parts of mangosteen such as flesh, rind, and seed can be processed to increase its commercial value. Mangosteen processed products include coloring substance, rind flour, juice, cocktail, syrup, and rind herbal extract. Mangosteen contains antioxidant compounds that are very beneficial for human health such as anthocyanin, xanthone, tannin, and phenolic acid (Narakusuma et al., 2013)

In Indonesia, mangosteen planting centers are located in several regions such as West Java (Purwakarta, Bogor, Tasikmalaya, and Ciamis), West Sumatera, North Sumatera, Riau, East Java, East Kalimantan, Central Kalimantan, and Bali. West Java and West Sumatera become the biggest mangosteen producers in Indonesia, with production volume as high as 11.5 and 8.5 thousand tons respectively in the year of 2015. The average production rate of

Indonesian mangosteen during 1993-2013 period was 63.7 thousand tons annually, while the average export volume in the same period reached 7.85 thousand tons per year (Ashari et al., 2015). Mangosteen export ranks first on national fresh fruit export to foreign countries. Kusmayadi et al. (2017) argued that the level of consumption of mangosteen was higher than that of other fruits, especially because of its benefits on health. Therefore this becomes an opportunity for mangosteen agribusiness development in Indonesia to meet marketing needs, both domestic and international.

Nevertheless, in the current era of trade globalization, Indonesian mangosteen products should deal with intense competition with similar products from other countries in domestic and international markets. Indonesia's main competitors of mangosteen producers are India, China, and Thailand, whose market shares have increased since 2009 (Kustiari et al., 2012).

Generally, the problem encountered by farmers is the low quality of fruits produced. The contributing factors include traditional cultivation practices, such as the lack of fertilization on crops, the number of mangosteen trees over 30 years whose productivity level has decreased, and the use of non-superior seedlings (Suminartika, 2017). Limited capital is also an obstacle in improving mangosteen quality at the farmer level. The lack of capital forces the farmers to not fertilize their crops, only spending their small amount of fund for harvesting and weeding labors. This means that farmers do not carry out the process of crop cultivation as recommended.

Mangosteen is among fruit commodities which are cultivated by many people in Poso Regency. As an effort to encourage the development of horticultural production, specifically the mangosteen commodity, the regional government of Poso Regency has established East Pamona District as a location for mangosteen crop development. The agriculture sector program that refers to the Mid-Term Regional Development Plan of Poso Regency for 2016 to 2021 has appointed Olumokunde Village, one of 13 villages in East Pamona District, as a model for developing agribusiness-based agricultural center. Initiated by Poso Regency Agriculture Office, the local government has implemented the declaration of Olumokunde as The Mangosteen Village ("Kampung Manggis") on September 29, 2017.

Potentials for developing mangosteen crops as an alternative effort to enhance farmer's household income is very promising, given that before the launching of the regional government program, mangosteen farms were able to provide additional income to farmers' families as much as 1.00 to 1.25 million rupiahs per tree each year on average. A preliminary survey confirmed that the yield of mangosteen fruits obtained by farmers at Olumokunde was as many as 100 to 125 kg with an average selling price of Rp10,000 per kg. The village's fruit yield of 100 to 125 kg per tree was greater than that of the Central Sulawesi region which reached 96 kg per tree (BPS Provinsi Sulawesi Tengah, 2017), but still lower than that produced by farmers at Sukabumi Regency, West Java (204 kg/tree/year) (Nuraniputri et al., 2016), as well as results from farmers at Thailand, Malaysia, and India (300 kg/tree/year) (Nuraniputri et al., 2016). The reason for this is that Olumokunde farmers generally still expect productions from trees that are over 30 years old, have not used seedlings from superior clones, have no application of cultivation technology based on operational standard procedures that refers to Good Agricultural Process and Good Handling Practices concepts, and deal with a weak integrated supply chain in business partnership (Saptana et al., 2018)

To attract farmers or investors, there should be pieces of information about the feasibility of mangosteen farm. Thus, to determine how a project can be beneficial or not, a study of the project evaluation needs to be done. Santos et al. (2017) in their research about the financial feasibility of coffee monoculture farming in Emera District, East Timor used several criteria such as Net Present Value (NPV), Internal Rate of Return (IRR), Gross B/C Ratio, Net B/C Ratio, payback period, and sensitivity analysis to certain that investment decision was feasible. Gogic & Ivanovic (2013) applied the indicators of NPV, IRR, and payback period to determine the investment feasibility in raspberry plantations in Serbia. Whereas Shruthi et al. (2017) studied the financial feasibility of paddy precision farming in India by using the criteria of NPV, IRR, Net and Gross B/C Ratios, payback period, and profitability index. Eventually, study results of investment feasibility will give two choices to farmers or investors whether they can invest in a project or save the money in the bank (Dhakal et al., 2016).

Marketing analysis was carried out to discover the model of the mangosteen marketing channel which was applicable at the study site. Agricultural marketing can be defined as the commercial functions involved in transferring products consisting of a farm, horticultural, and other allied products from producer to consumer. Agricultural marketing includes all activities involved in moving agricultural products from producer to consumer through time (storage), space (transport), form (processing), and transferring ownership at various levels of marketing channels (Rehman et al., 2012). Since mangosteen is highly perishable, according to Gopalakhrisnan (2013), it needs careful handling, quick transport, sound packaging, and timeliness of all operations.

Naseer et al. (2019) in their study regarding citrus marketing in Pakistan stated that there are two models of the fruit supply chain: (i) traditional supply chain which sells directly to village retailers, local intermediaries, or traditional markets, and (ii) modern supply chain which sells to traders, contractors, local processors, or manufacturing factories. The form of marketing channel will determine both the revenue obtained by farmers and the bargaining position on their products (Asogwa & Okwoche, 2012).

This study discusses the concept of mangosteen farm development at Olumokunde Village in the form of plantation business which is assumed to have met the technical requirements for crop cultivation so that the crops are expected to be able to produce optimally and provide a reasonable profit for farmers who work on them. Investment analysis was conducted to find out farm feasibility for 25 years of investment period by the entrepreneur. According to Al-Sharafat & Al-Fawwaz (2013), some indicators provided reasonable and reliable tools to conduct a financial feasibility analysis as a procedure to achieve the goals of any feasibility study. The scope of the feasibility of this study is limited to investment decisions made by entrepreneurs to develop their farms. The study result is expected to be referenced for all stakeholders related to the development of mangosteen commodity and growth of the market for fruit products that is profitable for business actors and regional economic development.

This research aims to analyze the investment feasibility and marketing of mangosteen commodity at Olumokunde Village, Poso Regency, Central Sulawesi, Indonesia.

## RESEARCH METHOD

This research was conducted at Olumokunde Village, East Pamona District, Poso Regency, Central Sulawesi, Indonesia from June to September 2018. Research respondents of 60 mangosteen farmers from a population of 115 farmers were determined through a stratified sampling technique based on the mangosteen cultivation area. There were 3 categories of size area, i.e. less than 1 ha, 1 to 5 ha, and more than 5 ha. From each category 20 farmers were taken as respondents. Data obtained from all respondents were then averaged to become a calculation of farm analysis as large as 1 ha.

The collected data consisted of primary data and secondary data. The primary data consisted of mangosteen fruit production, selling price, the use of production facilities and farm labors, and fruit product distribution from farmer to the trader and or consumer. The secondary data included geographic condition and village's climate from both Central Bureau of Statistics of Poso Regency (BPS Poso) and Meteorological, Climatological, and Geophysical Agency of Central Sulawesi Province (BMKG Sulawesi Tengah). Data collection was done through a survey method in the forms of field observation, questionnaire to respondents, interview, and documentary study for secondary data.

Data were then analyzed using income analysis, R/C ratio, farm financial feasibility analysis (calculations of NPV, IRR, gross B/C ratio, net B/C ratio, profitability ratio, and payback period), farm sensitivity analysis, and mangosteen marketing channel analysis. The methods of analysis can be explained as follows.

Income calculation is done using the formula:

$$\Pi = TR - TC \quad (1)$$

in which π is mangosteen farm income (rupiah/ha/year), TR is total revenue (rupiah/ha/year), TC is total cost production (rupiah/ha/year)

R/C Ratio is calculated with the formula:

$$\text{R/C Ratio} = \frac{TR}{TC} \quad (2)$$

R/C Ratio is a value that shows the ratio between the amount of revenue and farm production costs. A value of R/C Ratio lower than 1 means that the farm is a loss, R/C Ratio equals 1 means that the farm is break-even, and R/C Ratio higher than 1 means that farm gets profit.

Net Present Value (NPV) is the difference between present value and invested initial capital. NPV ≥ 0 means go project, or investment is feasible to be performed. In another word, a project can generate benefits that have the same as or more value than overall expenses

$$\mathrm{NPV} = \sum_{t=1}^{n} (B_t - C_t) / (1+i)^t - K_0 \quad (3)$$

in which $K_0$ is investment cost, (Bt – Ct) / $(1+i)^t$ is NPV in the relevant years, B is benefit and C is cost.

Internal Rate of Return (IRR) or investment rate is a level of rate which points out that the amount of NPV is the number of overall investment costs. For investment decision making, IRR is compared with the social discount rate, and equals to the bank interest rate. IRR ≥ social discount rate means go project.

$$\mathrm{IRR} = \sum_{t=1}^{n} (B_t - C_t) / (1+i)^t = 0 \quad (4)$$

Gross Benefit-Cost Ratio (Gross B/C Ratio) is a ratio between the amount of present value of the gross benefit and the amount of present value of gross cost. Gross B/C Ratio ≥ 0 means that investment is feasible to be performed.

$$\text{Gross B/C Ratio} = \frac{\sum_{t=1}^{n} B_t/(1+i)^t}{\sum_{t=1}^{n} C_t/(1+i)^t} \quad (5)$$

Net Benefit-Cost Ratio (Net B/C Ratio) is a ratio between the amount of positive present value and the amount of negative present value. Net B/C Ratio ≥ 0 means that investment is feasible to be performed.

$$\text{Net B/C Ratio} = \frac{\sum_{t=1}^{n} (B_t - C_t) - (1+i)^t}{\sum_{t=1}^{n} (C_t - B_t) - (1+i)^t} \quad (6)$$

Profitability Ratio (PV'/K) or capital rentability index or profitability ratio is a ratio between the present value of the residual benefit flow minus the routine cost and the present value of capital cost. PV'/K ≥ 0 means that investment is feasible to be performed.

$$\mathrm{PV'/K} = \frac{\sum_{t=1}^{n} (Bt - O\ \&\ M)/(1+i)^t}{\sum_{t=1}^{n} K_t/(1+i)^t} \quad (7)$$

O and M are operational and maintenance costs, and Kt is capital cost.

Payback period is a period during which net cash flow can recoup all investment costs incurred. The faster the payback period is for an investment, the more economically profitable an investment is carried out.

$$\sum_{t=0}^{n} Bt - Ct = K_0 \quad (8)$$

The sensitivity rate of investment criteria to the factors that influence them is calculated by the formula:

$$\text{Sensitivity rate} = \frac{\frac{|X_1 - X_0|}{|\bar{X}|} \times 100\%}{\frac{|Y_1 - Y_0|}{|\bar{Y}|} \times 100\%} \quad (9)$$

in which $X_1$ is NPV, IRR, Gross B/C, Net B/C, PV'/K, Payback period after changes; $X_0$ is NPV, IRR, Gross B/C, Net B/C, PV'/K, Payback period before changes; $\bar{X}$ is the average of NPV, IRR, Gross B/C, Net B/C, PV'/K, Payback period changes, $Y_1$ is cost production, selling price, and production after changes; $Y_0$ is cost production, selling price, and production before changes, $\bar{Y}$ is the average of cost production, selling price, and production changes.

Analysis of marketing is done descriptively by observing the forms of mangosteen marketing channels conducted by farmers.

## RESULT AND DISCUSSION

### General Description

Geographically, Olumokunde Village is in the coordinate position of -1.905319, 120.887695 with a height of 650 m above sea level. The total area of the village is 1,689 ha or 9.51% of the East Pamona District, with a distance of 11 km and from the regency capital (Poso) of 102 km (BPS Kabupaten Poso, 2017). The location of Olumokunde village is quite strategic as it is connected by land transportations to other areas such as North Morowali Regency and Southeast Sulawesi Province.

According to Geographic Information System (GIS) analysis, it is known that most of the Olumokunde region is hilly areas with varying physiography, classified as follows: First, flat and slightly sloping topography (slope of 0 to 8%) which covers 767.03 ha or 45.41% of the area. This area is predominantly used for residential and rice fields for the population. Second, slightly sloping topography (slope of 8 to 15%) which covers 260.48 ha or 15.42% of the area. In general, this area consists of shrubs, and some are used for dryland plantations.

Third, undulating topography (slope of 15 to 25%) which covers 361.35 ha or 21.39% of the Olumokunde area. Generally, this area consists of open fields (grassland areas), hills, and shrubs. Fourth, steep topography (slope of 25 to 45%) which covers 234.68 ha or 13.89% of the Olumokunde area. This area is relatively narrow, but its existence is spread over hills, shrubs, secondary dryland forests, and open fields. Fifth, very steep topography (slope above 45%) which covers 65.57 ha or 3.88% of the area. It spreads over hills, primary and secondary dryland forests, and shrubs. This type of area is very prone to landslides or erosion so that serious conservation and protection efforts are needed.

Based on the land suitability condition map, there are about 20% of available land which allows for planning mangosteen development in Olumokunde, with the sloping level ranges from slightly sloping to bumpy or hilly.

In terms of climate, Olumokunde has an average annual rainfall that reaches 1,600 to 1,800 mm. The average daily temperature ranges from 25 to 32$^{o}$ C. This condition meets the requirements for growing mangosteen crops in the forms of ideal temperatures which are in the range of 22 to 32$^{o}$ C and 1,500 to 2,500 mm of rainfall that is evenly distributed throughout the year (Maloya, 2013).

Observation results confirm that generally, the type of soil in Olumokunde is alluvial. Land characteristic for mangosteen planting demonstrates suitability on classes S1 and S2 with soil fertility level as a limiting factor. According to land suitability status, forest area status, and land cover, it is projected that available real land for expansion target and mangosteen production improvement at Olumokunde is as large as 495.15 ha.

In terms of cultivation technical aspect, the Olumokunde people have had long enough experiences in mangosteen planting, so that these experiences become a strength factor to support the mangosteen development program. Based on data from the agricultural extension worker, there is about 50 ha of community garden land planted with mangosteen. The constraint of the current crop development is the difficulty in obtaining superior seeds resulting from shoot grafting techniques and the provision of rootstock seedlings. For one mangosteen plant, it needs an average of 1 to 2 seeds planted. The interviews with the community about potential aspects of production showed that from each tree harvested, 100 to 125 kg of fresh mangosteen can be obtained.

The quality ratio of fruit weight in 1 kg reaches 8 fresh mangosteens, while the potential weight of quality mangosteen is 5 fresh fruits per kg. Therefore, the quality of mangosteen weight needs to be increased through improving the technical aspects of cultivation and applying adequate technology. Observations show that most farmers have not applied adequate input technology and tend not to work fully to maintain crops. The use of production inputs on mangosteen crops is not yet a concern of farmers. Farmers do not apply fertilizers or intensive care because they are influenced by the perception that mangosteen is only a side crop that does not require full attention. People cultivate plants not prepared for market orientation and for large-scale businesses. They do not pay attention to both the quantity and quality of products that fit the market needs.

**Farm Income**

Income analysis of the mangosteen farm at Olumokunde is performed in Table 1. The analysis is conducted to mangosteen plantation business model as large as 1 ha, which is assumed to have met management standards, particularly in terms of the application of cultivation techniques such as using superior seeds, fertilizing according to recommended dosages, controlling pests and diseases, and using labors for plant maintenance. Farm income is calculated for 25 years following the stipulated investment period in the plantation business. The selling price of mangosteen fruit from farmers to traders is set at Rp10,000 per kg according to the real price at the time of the study.

The estimation of investment costs of mangosteen seedling planting is as many as 17.34 million rupiahs which consist of production facility costs such as seedling, fertilizer, pesticide, labor, and land rent costs. From the first to the fourth year, the crops have not produced yet so that farmers have not received revenue, only spending operational costs for purchasing fertilizers and pesticides as well as paying labors and land rent. The average operational cost during the period is many as 12.58 million rupiahs per ha.

Table 1. Business Projection of Mangosteen Farming in Olumokunde Village

| Year | Revenue | Cost production | Income | R/C Ratio |
|---|---|---|---|---|
| | .......... million rupiahs............ | | | |
| 0 | - | 17.34 | -17.34 | 0.00 |
| 1 | - | 11.81 | -11.81 | 0.00 |
| 2 | - | 13.00 | -13.00 | 0.00 |
| 3 | - | 13.03 | -13.03 | 0.00 |
| 4 | - | 12.28 | -12.28 | 0.00 |
| 5 | 6.00 | 14.13 | -8.13 | 0.43 |
| 6 | 12.00 | 14.88 | -2.88 | 0.81 |
| 7 | 24.00 | 16.36 | 7.64 | 1.47 |
| 8 | 31.50 | 16.36 | 15.14 | 1.93 |
| 9 | 42.00 | 19.47 | 22.53 | 2.16 |
| 10 | 50.00 | 19.10 | 30.80 | 2.62 |
| 11 | 65.00 | 19.74 | 45.27 | 3.29 |
| 12 | 70.00 | 20.11 | 49.89 | 3.48 |
| 13 | 83.00 | 20.11 | 62.89 | 4.13 |
| 14 | 92.00 | 20.11 | 71.89 | 4.58 |
| 15 | 105.00 | 21.84 | 83.16 | 4.81 |
| 16 | 110.00 | 21.84 | 88.16 | 5.04 |
| 17 | 120.00 | 21.84 | 98.16 | 5.49 |
| 18 | 126.50 | 22.59 | 103.91 | 5.60 |
| 19 | 123.00 | 22.59 | 100.41 | 5.45 |
| 20 | 119.80 | 22.59 | 97.21 | 5.30 |
| 21 | 111.50 | 21.09 | 90.41 | 5.29 |
| 22 | 107.80 | 21.09 | 86.71 | 5.11 |
| 23 | 104.00 | 21.09 | 82.91 | 4.93 |
| 24 | 100.00 | 21.09 | 78.91 | 4.74 |
| 25 | 93.50 | 20.11 | 73.39 | 4.65 |

Starting in the fifth year, operational costs incurred are increasing as a consequence of the enhanced use of production facilities. Crops entering the mature phase require more amounts of fertilizer to support plant growth. The use of insecticides and fungicides is enhanced to prevent pests and diseases. Also, labor use is coupled to intensify crop farming and fruit harvesting processes. The highest operational costs incur in the 18th until the 20th year, which is related to high-level production in those years. Production costs begin to decrease in the 21st year along with the decline in mangosteen production. Farmers make adjustments to the use of production facilities so that the decline in farm income is not too significant. The intended adjustment is to reduce the use of insecticides and labors for fertilizing and harvesting.

Mangosteen fruit production reaches its peak when the crop is 18 years old. It is the time when mangosteen farm gets the highest income of 103.91 million rupiahs per ha. With the decline in mangosteen production after the 19th year, the farm profit has also decreased to reach the amount of 73.39 million rupiahs per ha in the 25th year.

In year 0 (initial investment) up to the fourth year, the value of R/C Ratio = 0, because the farm has not received revenue and only spending operational costs for unproductive crops. R/C Ratio when the crops are 5 to 6 year-aged is still less than 1 because the revenue obtained cannot cover operational expenses. But since the 7th year onwards the value of R/C Ratio has exceeded 1 which means that the amount of revenue is higher than that of operational costs. The highest R/C Ratio of 5.6 is achieved in the 18th year, which means that each production cost expended of 1 unit will cause a revenue gain of 5.6 units. R/C Ratio value starts to decrease in the 19th year until reaches 4.649 in the 25th year. However, the value of R/C Ratio is still more than 1, so that mangosteen farm still has economic feasibility.

## Farm Investment

The values of investment feasibility indicators for mangosteen commodity development in Olumokunde are shown in Table 2. The NPV as many as 87.496 million rupiahs on investment rate of 14% is positive, which means that the investment is feasible to be conducted. The value indicates that the difference between benefit (revenue) and cost (expense) that is measured according to current money value is as many as 87.496 million rupiahs. The Gross B/C Ratio of 1.694 demonstrates the ratio between the amount of gross revenue and the amount of gross cost which the values are calculated at this time. Each gross expenditure (in the form of capital costs of initial investment costs, operational costs, and maintenance costs) of 1 unit will provide gross revenue (total production value and the investment residual value at the end of the economic life of the business) of 1.694 units. Based on this indicator, the investment is feasible to be conducted.

Table 2. Investment Feasibility of Mangosteen Farming

| Feasibility criteria | Value |
|---|---|
| NPV (million rupiahs) | 87.496 |
| Gross B/C Ratio | 1.694 |
| Net B/C Ratio | 2.476 |
| PV'/K | 6.047 |
| IRR (%) | 19.784 |
| Payback period (year) | 10.950 |

discount factor = 0.14

The value of the Net B/C Ratio of 2.476 is positive, which indicates a feasible investment. The value points out that the ratio between the amount of net revenue and the amount of net cost is 2.476 where each expenditure of 1 unit will provide revenue of 2.476 unit. The profitability ratio of 6.047 is positive as well, indicating that each capital expenditure of 1 unit will provide profit for business as many as 6.047 units.

The IRR value of 19.784% is higher than the assumed interest rate which is 14%. This shows that it is more profitable for entrepreneurs to invest because the mangosteen farm will provide a return to the capital invested by 19.784%. Meanwhile, the payback period of 10.95 years means that all expenses will be returned within 10 years and 11 months. The payback period is smaller than the investment life (25 years) so that the investment is feasible to be implemented.

**Farm Sensitivity**

Sensitivity analysis is used to find out the change of both internal and external factors which influences the values of revenue and cost production on investment criteria. The factor change includes the increase in cost production, the decrease in the selling price, and the decrease in production. Those are the most dominant factors that change at certain times. An increase in the production cost of 10% is assumed to correspond to the inflation rate which causes a rise in the price of production factors. A reduction in mangosteen selling price by 20% is to respond overproduction above the market capacity, especially during the main harvest. A 20% reduction in mangosteen production is assumed to occur if the production quantity does not achieve the target due to technical factors such as climate anomalies or pest and crop disease attacks. The result of sensitivity analysis is shown in Table 3.

An increase in production costs of 10% per year causes the NPV, Gross B/C, Net B/C, PV'/K, and IRR to decrease, while the payback period increases. NPV and Net B/C are sensitive to changes, whereas other indicators are not. The increase in cost production influences the ability of farmers to buy or to pay production factors. If production and fruit selling price is assumed to be constant, the increase in cost production will reduce the farm profit. Nevertheless, because all investment indicators still have positive values, the investment is still feasible to be conducted.

Table 3. The Sensitivity Analysis of Mangosteen Farming

| No | Changes that affect | Before change | After change | Sensitivity Rate | Result[a] |
|---|---|---|---|---|---|
| 1 | Cost production raises 10% | | | | |
| | NPV (million rupiahs) | 87.495 | 76.630 | 1.390 | S |
| | Gross B/C | 1.694 | 1.560 | 0.865 | NS |
| | Net B/C | 2.476 | 2.191 | 1.282 | S |
| | PV'/K | 6.047 | 5.420 | 0.965 | NS |
| | IRR (%) | 19.784 | 19.291 | 0.265 | NS |
| | Payback period (year) | 10.950 | 11.660 | 0.583 | NS |
| 2 | Fruit price decreases 20% | | | | |
| | NPV (million rupiahs) | 87.495 | 44.747 | 2.910 | S |
| | Gross B/C | 1.694 | 1.355 | 1.005 | S |
| | Net B/C | 2.476 | 1.733 | 1.589 | S |
| | PV'/K | 6.047 | 3.581 | 2.305 | S |
| | IRR (%) | 19.784 | 18.121 | 0.397 | NS |
| | Payback period (year) | 10.950 | 12.090 | 0.520 | NS |
| 3 | Production decreases 20% | | | | |
| | NPV (million rupiahs) | 87.495 | 67.505 | 2.706 | S |
| | Gross B/C | 1.694 | 1.536 | 1.026 | S |
| | Net B/C | 2.476 | 2.122 | 1.616 | S |
| | PV'/K | 6.047 | 4.894 | 2.211 | S |
| | IRR (%) | 19.784 | 19.132 | 0.352 | NS |
| | Payback period (year) | 10.950 | 11.940 | 0.736 | NS |

[a]S=sensitive; NS= not sensitive

The reduction of mangosteen selling price by 20% causes the NPV, Gross B/C, Net B/C, PV'/K, and IRR to decrease, while the payback period increases. Changes in the values of these indicators are far greater than changes due to increases in production costs. NPV, Gross B/C, Net B/C, and PV'/K are sensitive to change, while IRR and payback period are not. This indicates that farm sensitivity is greater against falling prices compared to rising production costs. If it is assumed that production and production costs are constant, then the decline in selling price will cause a reduction in profits which is far greater than the decline in profits due to rising production costs. However, in terms of investment feasibility, the values of the positive feasibility criteria demonstrate that investment is still feasible.

The decrease in mangosteen production of 10% also causes the NPV, Gross B/C, Net B/C, PV'/K, and IRR to decrease, while the payback period increases. IRR and payback period is not sensitive against change, but the other variables are. However, sensitivity due to production reduction is still smaller than that of price decline. Production reduction causes a decrease in farm profit, but the investment is still feasible because of the positive values of feasibility indicators.

## Marketing

There are two models of mangosteen marketing channels at Olumokunde which can be drawn as follows. First, direct marketing. In this model, farmers sell mangosteen directly to consumers at little stalls they build on the roadside. Mangosteen buyers generally are people who travel and cross the Trans Sulawesi road, including Olumokunde Village. The prevailing selling price between farmers and consumers at the time of this study was Rp10,000 per kg.

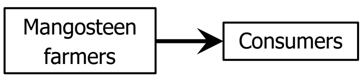


Figure 1. Direct marketing

The second, indirect marketing. In this model, farmers sell the fruit in a large amount to local wholesalers who then sell the fruits to consumers. The wholesalers bring the products outside the village because mangosteen consumers spread in quite larger areas. The local market for mangosteen products is Poso Regency (Tentena, Poso, and surrounding areas), while inter-provincial sales reach Mangkutana region, South Sulawesi Province. The prevailing selling price between farmers and wholesalers at the time of this study was Rp10,000 rupiahs per kg, whereas the selling price between wholesalers and consumers could achieve Rp12,000 to Rp15,000 per kg.

Based on the study conducted by Naseer et al. (2019), both direct and indirect mangosteen marketing could be included in the traditional supply chain category, which is a supply chain connecting farmers as the producer and local retailers, intermediaries, and markets as the channel to sell their fruit products. De Fazio (2016) mentioned it as the short supply chain. The studies pointed out that the extension of the supply chain had produced a decrease of its share of added value to the benefit of the farmers, and as a consequence, had excluded many small producers from the market.


Figure 2. Indirect marketing

Both of these marketing channel models give convenience for farmers to sell their product to consumers. In direct marketing, consumers go directly to producers to make transactions. There are several advantages obtained by consumers. First, producers commonly allow consumers to sample some of the fruit for free. Second, mangosteen fruit is generally sold as fresh fruit. If consumers want to buy in large quantities, producers usually allow them to pick fruit directly on the tree. Therefore through direct marketing, the opportunity for consumers to get fresh mangosteen is greater. As for producers, they do not have to spend marketing cost to sell their products.

In indirect marketing, fruit wholesalers come to producers' locations to buy harvested fruit. Benefits received by producers through this marketing model are: (i) producers do not need to pay for distributing their products, (ii) producers do not necessarily bear the risk of damage to mangosteen fruit products if stored for more than 5 days without special treatments. The nature of mangosteen is perishable. At the farmer level, freshly harvested fruits are simply packaged in sacks to be sold to wholesalers, so that the risk of quality degradation is high.

## Research Implication

The local government's plan to develop Olumokunde as Mangosteen Village in the large scale product development is needed. The development of large-scale mangosteen commodities requires market expansion, not only to meet local or regional demands but also to export overseas. According to Muslim & Nurasa (2011), mangosteen export has a good opportunity because there are no quotas, and the demand volume from international consumers has not yet been fulfilled. However, product competition in international markets today are increasingly tight, where consumers generally prefer high-quality products at lower prices. Therefore, it is very essential to form and strengthen the fruit supply chain, particularly to design product supply, to determine product quality, and to transport the product until it reaches the final consumers.

The supply chain is an integrated process of a product since it is in the form of raw materials until it is converted into a finished product and finally sent to consumers (Deveriky et al., 2015). The formation and strengthening of the mangosteen supply chain at Olumokunde can be pursued through the following steps. First, the formation of farmer groups as a forum for cooperation and knowledge sharing among farmers so that they can carry out mangosteen cultivation in a professional manner. In the group, farmers need to be coordinated to work in the intensive assistance on crop management and post-harvest handling. Thus, products will be produced with a high-quality standard at a reasonable selling price. Furthermore, farmers can coordinate to maintain production stability to prevent markedly changes in sales prices and market situations (Puspitaningrum & Gayatri, 2019). The result of this study indicates that changes in production quantity are very sensitive, easily affecting farmers' income and the feasibility criteria for mangosteen farming.

Second, the establishment of farmer cooperative as buffering for farmers' mangosteen product, capital provider, and distributor of production facilities needed by farmers such as fertilizers and pesticides. Farmer cooperative then develops a standard for receiving mangosteen fruit products to be marketed. The cooperative should be equipped with facilities such as sorting, post-harvest handling, grading, and packaging. The organization mechanism functions of cooperative should be highlighted on to support of innovation creation, capital formation, agribusiness chain sustaining, and improving the cluster of the production system (Soetriono, Soejono, Zahrosa, Maharani, & Hanafie, 2019).

Third, the active role of the local government in facilitating development program in the forms of (i) the provision of competent agricultural extension agents who have the role of providing technical guidance about mangosteen cultivation to farmers, and (ii) the building of a cooperation network with exporting companies that will buy mangosteen fruit products from farmer cooperative with export quality standards which are set.

Fourth, the implementation of researches by local universities regarding the study of mangosteen farming development in terms of agronomic, social, economical, and environmental aspects, which can support the improvement of product quality and efficiency of mangosteen farming.

## CONCLUSION AND SUGGESTION

Mangosteen commodity development at Olumokunde Village meets the investment feasibility criteria. It is shown by indicators such as NPV of 87,496 million rupiahs, IRR of 19.8%, and payback period of 10.95 years. Besides, the farm business of mangosteen estimate shows that the amount of revenue is higher than that of operational costs after the 7th year.

There are two models of mangosteen marketing channels at Olumokunde, namely direct and indirect marketings. Both marketing channels provide advantages for farmers because they do not need to spend cost in selling their products. Commodity development on a large scale needs supply chain formation and strengthening to meet high-quality and high-competitive products.

This study suggests that mangosteen commodity development need reinforcement in various aspects such as empowerment of farmer group to increase productivity, the establishment of farmer cooperative to apply product quality standard, active participation of the local government to expand product market, and implementation of researches needs to improve farming development.

The limitation of this research is that feasibility analysis uses estimated data based on present situations, while future conditions are commonly uncertain. As a result, the analysis may not be the same as the actual values of investment feasibility criteria.

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# Determinants of interest in using electronic money in Indonesia: evidence from Denpasar, Bali

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**ABSTRACT**

Electronic money has received high attention from urban people in Denpasar, Bali. However, the use of electronic money is not yet fully known in relation to what factors influence user interest. This study aims to determine the relationship between factors that influence interest in using electronic money in Denpasar City, Bali Province. Data is obtained from online questionnaires on Google form, involve active users of Go-Pay, OVO, and Dana product. There are four variables observed including the risk perception, ease of use, benefit of use, and promotion. The research was worked with the confirmatory factor analysis. The results showed that majority of the users of electronic money are 20-25 years old, are female, have a bachelor's degree, and earn 2-4 million rupiahs. All variables show significant relationship to explains the interest in using electronic money. Interest in using electronic money is higher when the perception of risk is low, expand transactions, increases productivity and is supported by attractive promotion. The research suggests the attempts such as change in people's behavior to steadily use electronic money, regulation of the financial system stability to facility the use of electronic money and promotion are continuously strived so that users understand the risks and advantages of electronic money.

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## INTRODUCTION

Electronic money is a non-cash transaction facility that is receiving high attention from the public. This can encourage efficiency, effectiveness, and security of services in the various transaction needs. In Indonesia, electronic money service providers also offer many choices of payment applications to meet various transaction needs. Non-cash payment services have become increasingly popular with the support of smartphone use in the last five years in Indonesia. The rapid development of information technology and the internet has changed the payment model for consumers or other services in meeting their needs. The use of electronic money will provide benefits for users, service providers, and the government (Bank Indonesia, 2019).

Bank Indonesia has issued a monetary policy to facilitate the use of electronic money as a payment system. Related to the interest of government and Bank Indonesia, electronic money or e-money is one of the means to achieve the goal of building a cashless society. Bank Indonesia Regulation (PBI 20/2018) article 1 point 3 states that electronic money as a means of payment must meet the following elements: (i) issued on the basis of the value of money deposits held by the issuer, (ii) money is deposited electronically on the media server, and (iii) the value of electronic money managed by the issuer complies with banking rules and regulations. Electronic money can be transferred for payment transactions and/or fund transfers for its users.

Electronic money products that are popular in circulation include BCA Flazz, Mandiri E-Money, BRI Brizzi, and Tap Cash BNI. Those electronic money products are based on a chip, which is implanted in the card for payment purposes. Another kind of e-money is the server-based one, which does not use a card (chip). Server-based electronic money allows users to make buying and selling transactions quickly and safely without needing a card, for example Go-Pay, OVO, Dana, Go-Jek, Funds, Link Aja, Doku, and others. Until 2019, Bank Indonesia has officially issued 39 electronic money products. Electronic money issuers come from banks and non-bank financial institutions. The performance of non-bank issuers has shown improved performance, with activities monitored by Bank Indonesia to ensure safety and comfort for user.

Table 1. Electronic Transactions in Indonesia 2012-2019

| Year | Volume | Value |
|---|---|---|
| | million unit | trillion rupiahs |
| 2012 | 100.62 | 1.972 |
| 2013 | 137.90 | 2.907 |
| 2014 | 203.37 | 3.320 |
| 2015 | 535.58 | 5.283 |
| 2016 | 683.13 | 7.064 |
| 2017 | 943.32 | 12.375 |
| 2018 | 2,922.70 | 47.199 |
| 2019 | 5,226.70 | 145.165 |

Source: Bank Indonesia (2019)

Table 1 shows a trend in the use of electronic transactions which is increasing every year. The use of electronic money will have an impact on the banking system and the implications for monetary policy. Electronic money transactions have a significant effect on increasing the circulation of money (Pambudi, 2020). This correlates with an increase in turnover and total production of goods and services in the national economy, as explained by Irving Fisher's theory which relates the money supply and total transactions of goods and services production (gross domestic product). With the use of electronic money, a person is assumed to have a little cash in his wallet, but brings more significant circulation of money with the transactions he does with electronic nominal money. Even so, although non-cash payments are said to be effective, users face obstacles related to psychological factors, safety, comfort, and public trust (Hidayat, 2006).

Collaborative research between the I-price Group and the App Annie analytics company states that Gojek is the largest electronic money user in Indonesia. Gojek electronic money users also make Go-Pay transactions and utilize other services from the Gojek application. The next rank is occupied by OVO. OVO is competing with LinkAja for the second place. In the second quarter of 2019, LinkAja's position was successfully shifted by a newcomer, Dana. Jenius's electronic money product was in fifth place, even though in the third quarter of 2018 it was in fourth place.

The initiative of using non-cash money will support increased financial inclusion. The government wants to realize financial sovereignty through financial inclusion policies that reach 50% of the population. However, the fact remains that many people still do not rely on non-cash currencies as a means of payment transactions.

Denpasar is the city with the highest population density in Bali Province. Urbanization of the population drives the rate of migration and increases economic activity, including the use of electronic money. The economy of Denpasar is centered on tourism development and its supporting services that rely on digital-based economic transactions. Still, the phenomenon of using electronic money for people is not yet fully known. Users do not yet fully understand the benefits of server-based electronic money and the extent to which it is used efficiently.

In general, users' interest in non-cash (electronic) transactions faces many problems. Data as of May 2019 shows that there are more than 2.9 million cards distributed in Bali, consisting of 317 thousand ATM cards, 2.3 million debit cards, and 361 thousand credit cards, with a total transaction value of 2.2 trillion rupiahs approximately. Constraints of the use of non-cash transactions are the culture or habits of people who still keep cash, especially those in rural or remote areas. The younger generation shows more non-cash transactions than the older generation. Other obstacles are the lack of telecommunications infrastructure to run Electronic Data Capture (EDC) machines, tug-of-war on

Merchant Discount Rate (MDR), and card transaction fees. In fact, the use of electronic money is more profitable because the real value of money is relatively constant, free from the risk of physical damage to money (Tribun Bali, 2019).

The distribution of non-cash usage and transactions also still does not reach all business ventures. Transactions were found to be limited to MSMEs or in large stores (merchants) that have collaborated with electronic money issuers. They transact with consumers and suppliers of interconnected electronic money users. The use of digital transactions is determined by the user's behavioral interest, where the behavioral interest itself is determined by attitudes toward behavior and perceived usefulness (Davis, Bagozzi, & Warshaw, 1989). The decision to use new technology is determined by the benefits gained and the perceived convenience, which is believed to be the basic determinant of the acceptance of a technology (Davis et al., 1989)

Various benefits of electronic money, such as convenience, benefits, and promotional benefits are provided to attract electronic money users. Promotions that provide benefits, generate satisfaction for users and they tend to reuse. The explanation of Silaen & Prabawani (2019) shows that the promotional variable has a positive and significant effect on the interest in re-transactions of OVO electronic users in Semarang.

The use of server-based electronic money is getting higher interest than chip-based money in Denpasar. The publisher has carried out an aggressive promotion to attract more users to transact, by providing cash back or discounts. This phenomenon of the promotion of electronic money is very interesting to research, in addition to the benefits due to benefits and convenience.

This study aims to examine the relationship between determinants or factors that affect one's interest in using electronic money. The factors analyzed in this study are risk perception, ease of use, use benefit, and promotion.

## RESEARCH METHOD

This study uses a survey approach to users of Go-Pay, OVO, and Dana electronic money in Denpasar. The electronic money issuers provide EDC machines spread in various shops or merchants in Denpasar. The size of samples in this study is as many as 120 respondents who were determined based on the factor analysis module. The sample size considers an even effort to represent the three electronic money products (Sugiyono, 2016). The study uses 4 variables and a total of 12 indicators (Table 2 and Figure 1).

Tabel 2. Variables and Its Indicators Affecting Interest in Using Electronic Money

| Variable | Indicator |
|---|---|
| Risk Perception | Low risk of use (PR1)<br>Good system security (PR2)<br>Guarantee of security (PR3) |
| Ease of Use | Easy to learn (KP1)<br>Easy to get (KP2)<br>Easy to use (KP3) |
| Benefits of Using | Speeds up the transaction (MP1)<br>Increase productivity (MP2)<br>The efficiency of transaction (MP3) |
| Promotion | Attractive and easy-to-use (P1)<br>Increase of transactions (P2)<br>Promotional benefits (P3) |

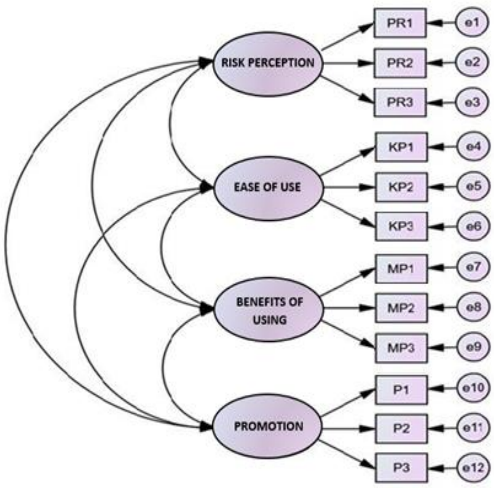


Figure 1. Model confirmatory factor analysis

This study defines the risk perception variable measured through indicators of low risk of use, good system security, and a good guarantee of transaction security. The ease of use variable is measured by feature indicators, namely easiness of learning, easiness of acquiring (downloading), and easiness of use for transactions. The benefits of use are related to the direct and indirect impacts of using electronic money, including faster transaction indicators, increased productivity, and efficient transactions.

Promotional variables are related to product benefits such as promotional attractiveness, discounts or cash back, and promotional benefits. Indicators were assessed using a 5-point Likert scale.

The research was carried out during the Covid-19 pandemic, where the research instrument used a questionnaire distributed online using Google Form. The answers to the questions for each indicator are stated on a Likert scale with an ordinal score of 1 to 5, which is 1 for strongly disagree, 2 for disagree, 3 for moderate, 4 for agree, and 5 for strongly agree.

Table 3. The Goodness of Fit Model

| Criteria | Value |
|---|---|
| Probability | < 0,05 |
| CMIN/DF | < 2.0 |
| RMSEA | < 0.8 |
| CFI | ≥ 0,9 |
| GFI | ≥ 0,9 |
| RMR | < 0,05 |

This study used a confirmatory factor analysis (CFA) method. CFA is useful for determining the structure of the matrix, analyzing the relationship (correlation) between variables, and knowing the extent to which each variable can be explained by each indicator (Ghozali, 2012). CFA also helps test hypotheses of model specifications. The four stages of CFA (Hair, Black, Babin, & Anderson, 2016) include defining each construct, building the model, testing the model, assessing the validity of the model. Analysis criteria of the goodness of fit (Table 3) were operated using the AMOS 21 software program.

## RESULT AND DISCUSSION

### Characteristic of Respondent

The characteristics of the respondents using electronic money are presented in Table 4. The table shows that most of the users of electronic money are in the 20-25 years old range. This age is productive and characterizes openness to the latest technological developments and being able to apply technology, especially gadgets. Electronic money transactions rely on modern and electronic technology using an internet connection. Meanwhile, more respondents were female than male. Also, the respondents with a bachelor's degree outnumbered those with other education levels. Obviously, electronic money users with education below high school cannot be found. This shows that they are generally well educated.

Tabel 4. Characteristics of Respondents

| No | Variable observed | Number of Respondents | |
|---|---|---|---|
| | | people | % |
| 1 | Age | | |
| | < 20 years | 5 | 4.2 |
| | 20-24 years | 100 | 83.3 |
| | 25-29 years | 13 | 10.8 |
| | 30-34 years | 1 | 0.8 |
| | ≥ 35 years | 1 | 0.8 |
| 2 | Gender | | |
| | Female | 77 | 64.2 |
| | Male | 43 | 35.8 |
| 3 | Education | | |
| | Senior High School | 11 | 9.2 |
| | Diploma | 2 | 1.7 |
| | Bachelor | 102 | 85.0 |
| | Master or Magister | 5 | 4.2 |
| 4 | Occupation | | |
| | Government Employees | 3 | 2.5 |
| | Private Employees | 56 | 46.7 |
| | Student | 29 | 24.2 |
| | Professional | 7 | 5.8 |
| | Entrepreneur | 12 | 10.0 |
| | Other Profession | 11 | 9.2 |
| | Not Work | 2 | 1.7 |
| 5 | Income | | |
| | < Rp2,000,000 | 19 | 15.8 |
| | Rp2,000,001 – Rp4,000,000 | 47 | 39.2 |
| | Rp4,000,001 – Rp6,000,000 | 34 | 28.3 |
| | Rp6,000,001 – Rp8,000,000 | 11 | 9.2 |
| | Rp8,000,001 – Rp10,000,000 | 4 | 3.3 |
| | > Rp10,000,000 | 5 | 4.2 |
| 6 | Domicile | | |
| | West Denpasar | 35 | 29.2 |
| | South Denpasar | 26 | 21.7 |
| | East Denpasar | 32 | 26.7 |
| | North Denpasar | 27 | 22.5 |
| 7 | Product of electronic money | | |
| | Go-Pay | 52 | 43.3 |
| | Ovo | 60 | 50.0 |
| | Dana | 8 | 6.7 |
| 8 | Frequency of Use | | |
| | 1 time a month | 15 | 12.5 |
| | 2-5 times a month | 41 | 34.2 |
| | 6-10 times a month | 25 | 20.8 |
| | 11-15 times a month | 18 | 15.0 |
| | > 16 times a month | 21 | 17.5 |
| | Total respondent | 120 | 100.0 |

In term of income, most electronic money users earn around 2-4 million rupiahs. This income is in accordance with the status of the respondents, who on average are not married or may not have family members, so the income is only used for personal needs. Meanwhile, most users reside in West Denpasar. The most widely used electronic money is the OVO product. Each electronic money product has relatively similar characteristics and usage methods. However, what distinguish them are the marketing strategy, the transaction accepting shop (which works with electronic money issuers), and the kinds of promotions offered. From the frequency of use, most respondents use electronic money 2-5 times a month. This shows that they are interested in using electronic money in their activities.

**Model Specification**

The measurement results of the outer model are presented in Table 5. This measurement is intended for the reliability and validity of all the indicators that make up the model. The results also show that the analysis can be carried out without modification or adjustment of the model because all criteria indicate the results' reliability and validity.

Table 5. Outer Model Measurement

| Indicator | Loading Factor | AVE | CR |
|---|---|---|---|
| Low risk of use (PR1) | 0.790 | 0.91 | 0.97 |
| Good system security (PR2) | 0.836 | | |
| Guarantee of security (PR3) | 0.856 | | |
| Easy to learn (KP1) | 0.801 | 0.91 | 0.97 |
| Easy to get (KP2) | 0.823 | | |
| Easy to use (KP3) | 0.854 | | |
| Speeds up the transaction (MP1) | 0.794 | 0.86 | 0.95 |
| Increase productivity (MP2) | 0.815 | | |
| The efficiency of transaction (MP3) | 0.696 | | |
| Attractive and easy-to-use (P1) | 0.866 | 0.89 | 0.96 |
| Increase of transactions (P2) | 0.786 | | |
| Promotional benefits (P3) | 0.784 | | |

CR: composite reliability, AVE: average variance extracted

Table 5 shows that the loading value is higher than 0.5, or even more than 0.7. These results indicate that the indicators on each factor or variable meet the validity to form a model. Based on Ghozali (2012), the factor loading value is (i) more than 0.30, meaning it meets the minimum level, (ii) more than 0.40, meaning more important, and (iii) above 0.50, meaning that it is practically important.

In the risk perception variable, the most influential indicator is security assurance (PR3) with a correlation coefficient (loading factor) of 0.856. In the ease of use variable, the most vital indicator is the ease of use of transactions (KP3) with a correlation coefficient of 0.854. Meanwhile, for the variable of usage benefit, the most substantial indicator is the increase in productivity (MP2) with a coefficient of 0.815. Finally, the promotion variable is more influenced by the attractiveness and ease of use (P1) indicators with a correlation coefficient of 0.866. Table 5 shows that the AVE values of all variables exceed the cut-off 0.7. This means that each construct variable can be relied on to explain the relationship between the variables in the model. In other words, the model characterizes a valid and convergent relationship. Meanwhile, the CR value of all variables exceeds exceed the cut-off value of 0.6. This value indicates that the relationship between variables in the model meets reliability.

**Factors Affecting Interest in Using Electronic Money**

Measurement of the inner model is carried out to determine the relationship between each construct variable, as presented in Table 6. In general, the relationship between variables finds a very significant correlation coefficient (p-value less than 0.05).

Table 6. Correlation between variables

| Construct Correlation | Estimates |
|---|---|
| Risk Perception - Ease of Use | 0.449 |
| Risk Perception - Benefit of Use | 0.409 |
| Risk Perception - Promotion | 0.482 |
| Ease of Use - Benefit of Use | 0.845 |
| Ease of Use - Promotion | 0.797 |
| Benefit of Use - Promotion | 0.769 |

The parameter estimation of the relationship between risk perception and ease of use shows a significant positive value of 0.449. This shows that the relationship between risk perception and ease of use affects an interest in using electronic money. Mbogo (2010) studied various factors that contributed to the successful use of non-cash payments by micro-enterprises in Kenya. He found that interest was determined by the ease of technology, accessibility, cost, and safety factors. Ease of accessibility including ease of use plays a role in technology adoption despite its risks (Pavlou, 2003). Convenience does not necessarily affect user interest without a guarantee of risk-handling or security regarding user data. Potential risks always arise behind the use of technology (Ackermann, Miede, Buxmann, & Steinmetz, 2011). Users certainly expect a low risk of using electronic money. Risks are related to system security and transactions both directly at cashier outlets and through applications on smartphones. The lower the risk perception and the easier to use the electronic money is, the more public interest in electronic money will be.

The relationship between the perceived risk and benefit variables of use shows a correlation coefficient value of 0.409. This shows that perceptions of the risks and benefits of use influence the interest in using electronic money. These findings confirm the research results of Priyono (2017) and Gefen & Straub (2000), where the benefits of use have the strongest influence on user interest. The results of this study indicate that OVO products are considered beneficial for their users, with an average usage frequency of 2-5 times a month.

It is very important to understand that there is a relationship between opportunity, uncertainty, and the possibility of getting an advantage (Komiak & Benbasat, 2006; Mayer, Davis, & Schoorman, 1995). Uncertainty regarding the risk of using electronic money can increase if users cannot measure product quality and rely solely on available information. Therefore, electronic money issuers must provide transparent information that assures users. For users of electronic money, they need to ensure security and discover the quality and benefits of using electronic money (Oktaviani, Faeni, Faeni, & Meidiyustiani, 2019). When certainty about security is not achieved, it will decrease the interest in using electronic money.

The relationship between risk perception and promotion variables shows a correlation coefficient of 0.482. This shows that risk perception and promotion affect the interest of electronic money users. The higher risk causes someone to be more afraid of transacting with electronic money, and vice versa. Risks should be minimized by electronic money issuers or the government by ensuring guarantees to users. Things that can be promoted are sales discounts at various merchants or stores to increase interest in using electronic money. Promotion can be done through advertising, publication, and public relations functions (Lupiyoadi and Hamdani, 2011)

Between the ease of use variable and the benefits of use, a correlation coefficient of 0.845 was found. These two variables affect interest in using electronic money. According to Davis et al. (1989) and Venkatesh & Davis (2000), the perceived ease is proven to affect the interest in using electronic money through perceived usefulness. This shows that the ease of using electronic money is in line with user expectations. If the use of electronic money is easier than other similar products, users will tend to choose an electronic money product that is easier to use.

The estimated parameter of the relationship between the ease of use and promotion variables shows a correlation coefficient of 0.797. These findings suggest that ease of use is associated with the promotion in influencing interest in using electronic money. Ease of use is a belief in electronic money technology, where an individual believes that it is easy to use and understand, as well as practical. The ease of use of electronic money will trigger an increase in user interest. This convenience includes access to electronic money accounts through various platforms or media on the user's gadget, including convenience in transactions. This convenience should be promoted to increase consumer interest in fulfilling their needs (Lupiyoadi and Hamdani, 2011). Cooperation between electronic money issuers and transaction providers is developed for payment gateway facilities for electricity, telephone, and other public utilities.

## Research Implication

The development of economic activity in Indonesia is entering the digital economy era, with the increasing use of electronic money. This research has resulted in the following implications or suggestions.

Changes in people's behavior and habits are encouraged and motivated in order to implement electronic payment system technology. New innovations have appeared in digital payment transactions in the form of financial technology (fintech), especially the use of server-based electronic money. The advantage of non-cash payments is the speed of transactions, which encourages the rate of money circulation and increases the production of goods and services (Popovska-Kamnar, 2014). Promotions such as discounts can encourage people to buy electronic money products.

Bank Indonesia uses prudent monetary criteria to regulate the use of electronic money. Money circulation is an important indicator of maintaining monetary stability. The issuance of non-cash instruments needs to be properly maintained and monitored with an orientation to stability. In line with the increase in transactions for money payment instruments, Bank Indonesia needs to regulate its effects on inflation and interest rates to be controlled in the context of financial system stability.

Electronic money issuers as technology developers in the future need to pay attention to risk perceptions, ease of use, benefits of use, and promotion to increase public interest. According to Hasniawati, Lase, & Hutabarat, (2020), the socio-economic characteristics which include education, age, income, and the purpose or function of the transaction affect the use of non-cash electronic payments. Socialization and promotion continuously strive so that users understand the risks, advantages, or disadvantages. Kochergin (2017) argued that the widespread use of electronic money is due to its speed and convenience. Electronic money issuers should pay attention to safeguarding the non-cash payment system.

## CONCLUSION AND SUGGESTION

The results of this study show that majority of the users of electronic money are 20-25 years old, female, holding a bachelor's degree, earning 2-4 million rupiahs, and using electronic money 2-5 times a month. Research also found that risk perception is determined primarily by the assurance of transaction security. The ease of use of electronic money is mainly influenced by the ease of transactions. Usage benefits are determined by increased productivity. Meanwhile, promotion is largely determined by the attractiveness of the promotion and the ease of use of electronic money.

This study also produces a constructive model that explains the relationship between perceived risk, ease of use, benefits of electronic money, and promotion. Interest in using electronic money is higher when the perception of risk is low, as well as when the e-money helps speed up transactions, increases productivity, and offers attractive promotions.

Furthermore, this research provides suggestions, including (i) change in people's behavior to understand and use electronic money wisely, (ii) regulation of the use of electronic money in the context of financial system stability, (iii) continuous socialization and promotion so that users understand the risks and advantages of the non-cash payment system.

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# Footwear business of village owned enterprises (BUMDes) and its role in increasing rural economic activities

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**ABSTRACT**

The village owned enterprises (BUMDes) has an important role in stimulating rural development and therefore it is necessary to examine its feasibility as a profitable business venture and has a sustainable impact on village development. The purpose of this research is to conduct a feasibility analysis of the BUMDes and its role in developing rural economic activity. This research method used a financial feasibility analysis to BUMDes of Harapan Jaya in Bogor Regency, Indonesia. Data were obtained through focus group discussion with informants who work in BUMDes as operational manager, supervisors, commissioners, as well as village officials and MSME entrepreneurs. The results showed that business feasibility analysis in the footwear marketing business by BUMDes is feasible as indicated by the net present value of 318 million rupiah; benefit-cost ratio 1.026; internal rate of return 35%; and a 2.56 year of payback period. Furthermore, BUMDes contributes significant profits for village. BUMDes involvement in the marketing of footwear products lead entrepreneurs and footwear workers earns a more income than the regional minimum wage. The collaboration between BUMDes and MSME resulted in a business profit of 80 million rupiah. BUMdes governance requires an increase in the quality of human resources and organization mechanism to be more competence and productive supporting performance targets, incentive mechanisms, and job satisfaction.

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## INTRODUCTION

Regional development aims to improve the quality and welfare of the community as measured by social, environmental, and economic aspects. From various factors of community welfare, economic development is one of the most important things in looking at people's welfare in an area. The rural development purposed to enhance the standard of living of rural communities and improving village welfare.

Rural economic growth is a process carried out by the community in managing existing resources in the village by forming partnerships, both with the government and with the private sector, which is characterized by the existence of a propulsive industry that can create new jobs and be able to stimulate an increase in the economy in the village (Asmawati & Supriyono, 2014). The challenge in dealing with rural economic development is to strive for the sustainability of existing economic activities, especially in advanced rural areas with effective and efficient governance, the participation of all elements of village communities, the use of technology, the support of the business climate in production and marketing, security guarantees, providing added value, and employment.

Rural development is always faced with limited government budgets. This needs to be opened with the inclusion of private participation or local-based business entities to be involved in village economic development. This is expected to reduce the gap in urban and rural development, as well as to promote the spatial transformation of the village to a more developed direction. This effort is inevitable to drive investment growth, to change in space and location, develop transportation, to use natural resources, and to improve the quality of human resources (Yan & Chen, 2018).

Law No. 6 of 2014 concerning Villages states that one of the priority programs in rural economic development is the establishment of village-owned enterprises (*Badan Usaha Milik Desa*, abbreviated as BUMDes). BUMDes is a business entity which is partly or wholly owned by the village through direct participation from the village wealth which is separated to manage assets, services, and other businesses for the maximum welfare of the village community (Regulation of the Minister of the Village, Development of Disadvantaged Areas, and Transmigration No. 4 of 2015 concerning Establishment, Administration, Management, and Closing of Village-Owned Enterprises). BUMDes aims at improving the village economy; optimizing village assets to be beneficial for village welfare; increasing community efforts in managing the economic potential of the village; developing business cooperation plans between villages and/or with third parties; creating market opportunities and networks that support general service needs; opening employment; improving community welfare through improving public services, growth and equitable distribution of the village economy; and increasing rural community income and village original income. BUMDes' management should prepare basic documents such as articles of association, bylaws, organizational administration, and financial administration (Kholmi, Jati, & Suhardi, 2018).

Murwadji et al. (2017) argued that the management of BUMDes has two main obstacles namely performance and financial constraints. The obstacle to BUMDes' performance is the community's knowledge that is still limited in doing business professionally, especially in preparing financial reports and operating results. Meanwhile, financial barriers come from the fraud of funds management resulting from operations or acts of corruption. At present, many BUMDes are not well developed due to the lack of competence in implementing BUMDes management in terms of both knowledge and human resources (Gunaya, Sujana, & Dewi, 2017; Muryanti, 2020). Suryanto (2018) stated that more than 22 thousand villages have already owned BUMDes, but those actively operating were less than 20%. The various BUMDes activities have not yet shown significant changes to improve the local economy such as job opportunities and economic activities creation. The social system in the village is required to be reinforced to develop social entrepreneurship comprehensively through the active collaboration of village stakeholders and the community (Muryanti, 2020). This is also associated with inadequate development of BUMDes businesses due to the selection of business types that are not market-oriented, and are not based on a careful business feasibility study.

The feasibility study is an activity that assesses in-depth whether or not an activity or business to be carried out. The purpose of the feasibility study is to find out how to minimize impediments and risks to the future business development. BUMDes is a profit-oriented economic institution. It should be prudent in operating its business so that a basic consideration is needed from a business feasibility study to avoid the risk of bankruptcy. A feasibility study is used to evaluate whether or not a business is feasible at the beginning of starting a business, or in the context of expanding the development of an existing business (Aini & Mawardi, 2019). The feasibility study is carried out so that the BUMDes can contribute sustainably to rural development, especially in the economic activity that affects the welfare of rural communities (Setyobakti, 2017).

Data from the Bogor Regency Community Empowerment Service in 2018 shows that out of a total of 416 villages in Bogor Regency, 380 of them already have BUMDes. However, only 79 villages are actively operating. One of the BUMDes that is active in Bogor Regency is BUMDes of Harapan Jaya, which is located in the village of Pagelaran. BUMDes of Harapan Jaya was founded in 2015, which was established as a mandate for the implementation of the village law. The development of the BUMDes in the last three years has not shown positive results.

BUMDes is not yet optimal in absorbing labor and contributing to the village original income (Hidayah, Mulatsih, & Purnamadewi, 2019b). The low performance of BUMDes is the result of determining the type of business that does not match the needs and potential of the village and has not carried out an in-depth business feasibility study. Moreover, BUMDes management and Village government officials have not been able to understand the business unit in detail. They also do not play a role in increasing village income and how to develop the economy of the village of Pagelaran.

This research aims to evaluate business feasibility and describe the role of BUMDes of Harapan Jaya in the economic development of Pagelaran Village.

## RESEARCH METHOD

This research was conducted in Pagelaran Village, Ciomas District, Bogor Regency which was conducted from January to March 2019. The data used primary data from focus group discussion (FGD). The FGD was carried out with three BUMDes management elements including operational implementers (3 people), commissioners (2 people), and agency of regional consultative as supervisor (2 people). The FGD was conducted to determine the concept of the business to be run, as well as the business cost component, and to calculate business feasibility. The feasibility analysis of the BUMDes and Micro, Small, and Middle Enterprises (MSME) footwear business aims to determine whether the footwear business is feasible or not. The study assumed a discount rate of 5% per year. Four standard criteria are usually used in a business feasibility analysis, including net present value (NPV), benefit-cost ratio (BCR), payback period (PP), and internal rate of return (IRR).

NPV is the net present value which is the difference between the value of benefits and value of costs over the life of the investment. To illustrate the future cash value relative to the present, the value of costs and benefits is multiplied by the weighting factor (discount factor) (Fauzi, 2014). A business is said to be feasible or a profitable business investment if the NPV higher than 0. In general, the NPV calculation is as follows.

$$NPV = \sum_{t=1}^{n} \frac{(B_t - C_t)}{(1+i)^t} \qquad (1)$$

in which NPV is the net present value of the footwear business, Bt is benefits of the footwear business in the t-year, Ct is the cost of footwear business in the t-year, i is interest rate, t is the period in years (1,2,3 ... n)

Benefit-Cost Ratio (BCR) is a comparison of the cash value of project benefits with the cash value of project costs. A business is feasible to run if it has a BCR value of more than 1, if less than 1, then the business is not feasible to run. In general, the BCR calculation is as follows:

$$BCR = \frac{\sum_{t=1}^{n} B_t/(1+t)^t}{\sum_{t=1}^{n} C_t/(1+t)^t} \qquad (2)$$

BCR is the benefit-cost ratio of the footwear business, Bt is benefits of the footwear business in the t-year, Ct is the cost of footwear business in the t-year, i is interest rate, and t is the period in years (1,2,3 ... n)

Internal Rate of Return (IRR) is the value of the discount that makes the NPV of a zero-value business. IRR describes the maximum interest rate that can be paid for the utilization of resources by a business activity (Rustiadi, Saefulhakim, & Panuyu, 2009). An effort is declared feasible if the IRR value is higher than of the interest rate, and vice versa. In general, the IRR calculation is as follows:

$$IRR = i_1 + (i_2 - i_1) \frac{NPV_1}{(NPV_1 - NPV_2)} \qquad (3)$$

IRR is internal rate of return of the footwear business, NPV1 is positive NPV, NPV2 is negative NPV, i1 is interest rate that produces a positive NPV, i2 is interest rate that produces a negative NPV.

Payback Period (PP) is a valuation technique to find out the period of return on investment of a business. In this study, the calculation of return on investment takes into account the discount factor and present value. A business is feasible if the PP value is lower than the life of the project, which means that after that period the company can return the capital spent on the business so it is feasible to run. In general, the PP calculation is as follows:

PP=n x (a-b)/(c-b) x 1 year (4)

in which PP is payback period of the footwear business, n is the last year in that the amount of cash flow (incoming cash PV) still does not cover the initial investment, a is the amount of initial investment, b is cumulative amount of cash inflows in n year, and c is cumulative amount of cash inflows in year n + 1.

Financial feasibility analysis conducted concerning on the following assumption: (i) the duration of project work is 8 years since the commencement of marketing in the first year, the project work time is derived from the economic life of the invested goods; (ii) stable marketing quantity, 150 scores per month; (iii) profits are obtained by BUMDes from the difference between the selling price of products to large companies and the purchase price of products from footwear entrepreneurs, namely five thousand rupiahs per pair, (iv) payment of salaries every 30 days, (v) workers involved as many as 3 people, 2 people for administration and marketing, 1 person for distribution, (vi) the interest rate is 5%; (vii) working day each year is 265 days.

## RESULT AND DISCUSSION

### General Description of Pagelaran Village

Pagelaran Village is located in the Ciomas District, Bogor Regency. Pagelaran Village has an area of 180 hectares, consisting of 16 community associations and 81 neighborhood associations. The total population of Pagelaran Village is 20.4 thousand people, consisting of 10.4 thousand men and 9.9 thousand women. The majority of its residents work in the footwear business activities. The development direction of the village refers to the vision and mission of development as outlined in the 2015-2020 Mid-Term Development Plan. The development plan document functions as a determinant of the direction of development in the village. The village's vision is to build a village towards progress. It is implemented in missions of improving infrastructure, developing the economy, increasing the economy of small businesses in footwear production, and increasing the skills of the villagers.

Table 1. Pagelaran Village Revenue, 2015-2018

| Revenue | 2015 | 2017 | 2018 |
|---|---|---|---|
| | ........ million rupiahs ........ | | |
| Village fund | 307.5 | 867.7 | 769.2 |
| Allocation of village fund | 513.6 | 516.6 | 526.2 |
| Regional levies and tax revenue sharing | 170.2 | 299.0 | 343.8 |
| Regent assistance | 200.0 | 100.0 | 200.0 |
| Provincial assistance | 115.0 | 165.0 | 115.0 |
| Original village exposure | 23.0 | 24.0 | 153.0 |
| Financial assistance | 0.0 | 0.0 | 315.0 |
| BUMDes equity participation | 0.0 | 0.0 | 50.0 |

Source: Pagelaran Village (2019)

The village government of Pagelaran utilizes the development budget that is sourced from village funds, allocation of village funds, profit-sharing funds, and government assistance funds. Each year, the income budget received by Pagelaran Village increases. It can be seen in Table 1.

Pagelaran Village budget absorption can be categorized as quite good, with the realization of an average of 90% in 2018 (Table 2). The ability to manage the village fund allocation comes from the ability to access capital from other sources. The ability to find the potential of village resources can increase the village original income, as a capital factor that determines the readiness of the village government in implementing development (Wahyu, Aditya, Wardani, & Jeni, 2019).

Table 2. Spending Budget of Pagelaran Village, 2015-2018

| Activity | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| | ............................ million rupiahs............................ | | | |
| Government Administration | 386.4 | 482.6 | 561.3 | 686.7 |
| Development Program | 1165.4 | 1317.2 | 1117.9 | 1182.2 |
| Community Development | 19.8 | 141.9 | 184.4 | 181.0 |
| Community Empowerment | 31.3 | 246.3 | 108.7 | 1977.4 |

Source: Pagelaran Village (2019)

### The Economic Potential of Pagelaran Village

Village-owned enterprises (BUMDes) are organizations formed by the village government and communities based on the mandate of Law Number 6 of 2014 concerning Villages. BUMDes has a role as a source of village income, to support village development programs and the implementation of village governance. The composition of the management of the BUMDes organization refers to the Regulation of the Minister of Village Development and Transmigration number 4 of 2015 concerning the Establishment, Administration, Management, and Closing of Village-Owned Enterprises. The management consists of advisors, operational executors, and supervisors. The BUMDes advisor is mandatory for the village head. Operational executors are held by villagers who are not concurrently village officials. Supervisors are selected from village consultative members. The management of the BUMDes of Harapan Jaya consists of a commissioner, a BUMDes chairman, two supervisors, a secretary, a treasurer, and six business unit heads (Figure 1).

The establishment of BUMDes of Harapan Jaya was approved on 19 June 2015. The BUMDes already has a set of articles of association and by laws stipulated by Pagelaran Village Regulation Number 2 of 2015. The statutes are legally strengthened by notarial deed No. 03 dated 23 March 2015. The establishment of BUMDes refers to the Pagelaran Village Regulation Number 1 of 2015 concerning the Establishment of a Pagelaran Village Owned Enterprise. In the recent condition, BUMDes business includes food and culinary, catfish cultivation, payment services, clean water facilities, and oyster mushroom cultivation.

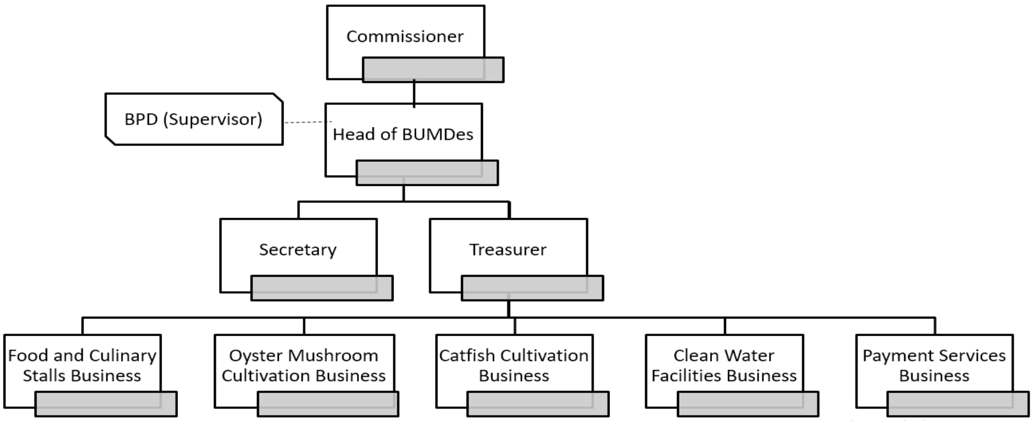


Figure 1. The organizational structure of BUMDes of Harapan Jaya. Source: Pagelaran Village (2019)

Entrepreneurship is an important key to generating economic growth. The types of entrepreneurship indicators affect gross domestic product (GDP) through various specific conditions. For example, entrepreneurial activity with indicators of business formation and need-based entrepreneurship could hurt growth in middle/low income countries. However, indicators of entrepreneurial attitudes such as perceptions, intentions, and role models have a positive influence on GDP in high-income countries (Doran, McCarthy, & O'Connor, 2018). Micro, small and medium scale entrepreneurship also has an important role in rural economic development. However, the problem often arises in the development of entrepreneurship is the availability of funds. Ocasio (2016) shows that not all micro-loans have a positive effect on economic development. Awareness of the specific needs of borrowers is important in designing credit programs that will drive business growth.

Pagelaran Village is the center for MSME footwear products that have been marketed to various cities in Indonesia. A total of 89 businesses produce various types of footwear including baby shoes, children's shoes, adult shoes and sandals, army shoes, and others. The average footwear products are made to order from buyers. Certain shoe manufacturers produce shoes with a stock system. The reason is that the shoe model from the agent is no different from other types of footwear oriented to market trends.

The selling price of footwear products in the village varies greatly according to the model and quality of the product. Micro and small businesses generally sell footwear products with prices ranging from 400 to 600 thousand rupiahs per score. Meanwhile, medium-sized businesses sell products with prices above 600 thousand rupiahs per score. The selling price of products from the footwear business to the market is determined through negotiation agreements. From the average sales of micro-businesses, they gain monthly turnover is less than 50 million rupiahs. Meanwhile, the monthly turnover of small business range 50 to 100 million rupiahs and the medium-sized businesses receive more than 200 million rupiahs. Furthermore, the average income of micro and small businesses of less than 5 million rupiahs per month. The average income of medium-sized businesses is remarkably higher than 29 million rupiahs per month (Table 3).

Table 3. Selling Prices, Turnover, and Income of Footwear MSME

| Category of MSME | Number of MSME | | |
|---|---|---|---|
| | Micro | Small | Medium |
| | ........... unit ........... | | |
| Selling Price | | | |
| <200 thousand rupiahs/score | 2 | 2 | 0 |
| 201-400 thousand rupiahs/score | 1 | 14 | 0 |
| 401-600 thousand rupiahs/score | 3 | 15 | 0 |
| <600 thousand rupiahs/score | 0 | 9 | 4 |
| Average Turnover | | | |
| <50 million rupiahs/month | 5 | 11 | 0 |
| 51-100 million rupiahs/month | 1 | 25 | 0 |
| 101-200 million rupiahs/month | 0 | 3 | 0 |
| 201-300 million rupiahs/month | 0 | 1 | 2 |
| >301 million rupiahs/month | 0 | 0 | 2 |
| Average Income | | | |
| <5 million rupiahs/month | 5 | 25 | 0 |
| 5 s/d 9 million rupiahs/month | 1 | 12 | 0 |
| 10 s/d 19 million rupiahs/month | 0 | 3 | 1 |
| > 19 million rupiahs/month | 0 | 0 | 3 |

Source: BUMDes "Harapan Jaya", data processed

The problem of developing MSME footwear business in Pagelaran Village is very diverse including variables of the availability of business capital, high raw material prices, decreasing labor force, dissatisfaction with selling prices, the role of craftsmen groups and the role of craftsmen and the government in business development (Hidayah, Mulatsih, & Purnamadewi, 2019a). To be able to develop local potential, BUMDes of Harapan Jaya should form a new business unit for product marketing services. Although marketing efforts do not directly address the problems of MSME, it is closely related to the footwear business capital system, which has so far relied on wholesalers. With a new marketing service business, the BUMDes should also provide capital assistance so that the footwear business can produce higher.

The marketing business unit displays advantages because it is secure in terms of business risk, business capital, conformity to education needs and human resource skills, and is relevant to answering problems faced by MSME. The advantages of product marketing services are expected to immediately resolve cash management needs, generate business profits, and develop an extensive business (Hidayah, Mulatsih, & Purnamadewi, 2020).

**BUMDes Business Model**

In the marketing of MSME footwear products in Pagelaran Village, BUMDes of Harapan Jaya can play a role in replacing the function of collecting traders (middlemen). As many as 83% of the footwear businesses in Pagelaran Village are small businesses. BUMDes focuses on empowering micro and small businesses so that their business operations can sustainably develop. Most of their business (92%) has a target market for wholesale shops and the remaining 5% is marketed to large companies through wholesalers.

Small business operations with marketing to large companies generate greater profits even though it is carried out through middlemen. BUMDes can act as a marketing mediator for footwear products to large companies. BUMDes facilitates the footwear business, especially small businesses, to change the market segment from wholesale stores to large companies. Changes in market orientation demand an increase in the quality of footwear products, so BUMDes should cooperate with related agencies to improve business skills and control product quality.

BUMDes revenue in the footwear business is obtained from the profit of selling products. Based on the results of the FGD, BUMDes received a profit of five thousand rupiahs for each sale of a pair of footwear. During the FGD, four small entrepreneurs committed to supplying the BUMDes marketing business. They are ready to produce footwear with different types, namely women's flat shoes, women's sandals, men's sandals, and men's shoes. The sharing of venture capital between footwear entrepreneurs and BUMDes each contributed 50 percent.

The footwear business process starts with BUMDes of Harapan Jaya getting orders from large companies. BUMDes then forwards the order to footwear entrepreneurs. Footwear entrepreneurs will produce goods to order. The quality control process is carried out by BUMDes together with entrepreneurs to produce product quality standards. Furthermore, the products are distributed by BUMDes to large companies. Three days after the delivery of the goods, BUMDes will get the proceeds from the sale which are then partially paid to the footwear entrepreneur. The flow of BUMDes footwear marketing business activities is presented in Figure 2.

BUMDes assists entrepreneurs to increase innovation in making footwear products. Joint monitoring and evaluation between BUMDes management and entrepreneurs is carried out every 3 months while updating market demand information. BUMDes also creates a catalog of footwear products to meet market demand. The collaboration between BUMDes and MSME footwear business shows the strength of economic activity through a sustainable supply chain. This work is not simple to achieve but requires the readiness of village resources to maintain sustainability. Villages need to prepare with adequate human resources in making village regulations, looking for business opportunities, preparing managers, making reports, and implementing supply chain management (Sulastriyono & Saputra, 2020).

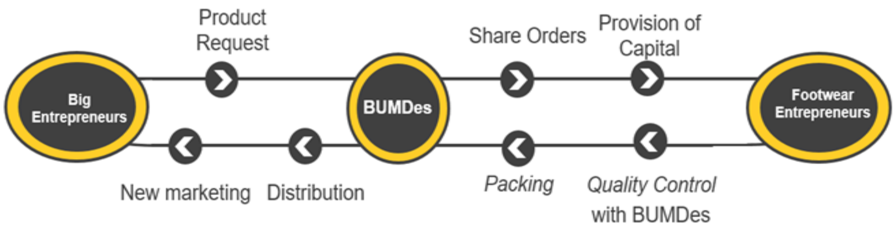


Figure 2. Footwear marketing business activities by BUMDes

## Business Feasibility

The business feasibility analysis was conducted to know the feasibility of establishing a footwear marketing business. There are several important cost components in the establishment of this business, namely revenue, investment costs, and operational costs.

Table 4. Annual Revenue of BUMDes Footwear Marketing Business

| Sale of product | Number of Goods | Cost per Unit | Total Cost |
|---|---|---|---|
| | thousand pair | thousand rupiahs | million rupiahs |
| Women's flat shoes | 15 | 50 | 750 |
| Wedges women's sandals | 9 | 60 | 540 |
| Men's sandals | 6 | 50 | 300 |
| Men's shoes | 6 | 55 | 330 |
| Total | | | 1,920 |

Source: BUMDes "Harapan Jaya", data processed

The revenue from the marketing of footwear products by BUMDes comes from the number of sales. The level of product sales is determined based on capital capability and consumer demand. Distribution is carried out directly from the MSME to the warehouse by the BUMDes. The total annual revenue of the marketing business of BUMDes is 1.920 billion rupiahs (Table 4).

The investment needs in the footwear marketing business are used to procure vehicles for distribution, computers, and supporting equipment. The total investment cost is approximately 214.5 million rupiahs in a year (Table 5).

Table 5. Annual Investment Needs of BUMDes Footwear Marketing Business

| Goods | Total Cost |
|---|---|
| | million rupiah |
| Computer | 10.0 |
| Modem | 1.0 |
| Printer | 2.0 |
| Pick-up vehicle | 200.0 |
| Desks | 1.5 |
| Total | 214.5 |

Source: BUMDes "Harapan Jaya", data processed

Costs required in a footwear marketing business consist of fixed costs and variable costs. It is estimated that the total cost required is 1.839 billion rupiahs. Fixed costs are costs whose amounts are not affected by the development of production and sales. Meanwhile, variable costs are costs incurred by the development of production (Nurmalina, Sarianti, &

Karyadi, 2014). The fixed and variable costs used in conducting business can be seen in Tables 6 and 7.

Table 6. Annual Fixed Costs of BUMDes The Footwear Marketing Business

| Fixed Costs | Cost per month | Cost per year |
|---|---|---|
| | .....thousand rupiahs... | |
| Communication | 100 | 1,200 |
| Stationary | 100 | 1,200 |
| Transportation | 500 | 6,000 |
| Electricity | 50 | 600 |
| Labor cost (2 person) | 5,000 | 60,000 |
| Vehicle tax | - | 6,000 |
| Total | | 75,000 |

Source: BUMDes "Harapan Jaya", data processed

Table 7. Annual Variable Costs of BUMDes Footwear Marketing Business

| Costs of product | Number of Goods | Cost per Unit | Total Cost |
|---|---|---|---|
| | pair | .. million rupiahs... | |
| Women's flat shoes | 15000 | 45 | 675 |
| Wedges women's sandals | 9000 | 55 | 495 |
| Men's slippers | 6000 | 45 | 270 |
| Men's shoes | 6000 | 50 | 300 |
| Labor cost (1 person) | - | 2 | 24 |
| Total | | | 1,764 |

Source: BUMDes "Harapan Jaya", data processed

The analysis of business feasibility criteria is carried out to determine whether the footwear marketing business unit by BUMDes is feasible or not. The calculation of investment criteria uses the cash flow method, where business projection over the next ten years is discounted at present. The analysis of the feasibility criteria can be seen in Table 8.

Table 8. Feasibility Criteria of BUMDes Footwear Marketing Business

| Value Investment | Criteria |
|---|---|
| NPV (million rp) | 318.2 |
| Net B/C | 1.026 |
| IRR (%) | 35.0 |
| Payback Period (years) | 2.56 |

Source: BUMDes "Harapan Jaya", data processed

The results of the calculation obtained an NPV of Rp. 318.2 million rupiahs. This value indicates that the business inflow for 8 years with an interest rate of 5 percent is greater than the cash outflow. These results indicate that the footwear marketing business by BUMDes is profitable and feasible to be implemented in the long term (NPV>0). The B/C ratio value in the footwear marketing business is 1.026. This value indicates that for every 1 expense incurred will result in a benefit of Rp. 1.026. This criterion also shows that the BUMDes business meets feasibility.

This study resulted in an IRR value of 35%. This indicates that the footwear marketing business has a projected return on investment of 35%. This also shows that the ability to return the capital is greater than the discount rate so that the business is feasible to develop. IRR shows the project's ability to generate a level of return on capital for companies that invest during the project implemented. The results of the analysis of the return on investment based on the present value with a discount rate of 5 percent, found the payback period of 2 years and 5.6 months. The magnitude of time is shorter than the calculation of the project life. This means that after that period, the BUMDes can return the capital that was spent, and the business of marketing footwear products began to earn profits.

Based on the analysis of the eligibility criteria, BUMDes of Harapan Jaya generally can revitalize its business by forming a new footwear marketing business unit in collaboration with local MSME. The synergy through the joint marketing system prevents negative market competition. Joint marketing is expected to provide advantages for small businesses because the selling price of the product has been agreed on by BUMDes. The collaboration also creates faith in price stability, enables to prepare business plans, and creates a conducive business environment for village development (Sutrisno, 2019). The collaboration can also be purposed to maintain production stability to prevent markedly changes in sales prices and market situations (Puspitaningrum & Gayatri, 2019). Meanwhile, this study shows that BUMDes can receive profits of 80 million rupiahs per year. The profit of the BUMDes business can provide the contribution potential of income to the village of Pagelaran. It is approximately four million rupiahs per year for supporting the village development program. This can further create independence for the village government to manage community services and village development.

The great potential of BUMDes management should be balanced with adequate public accountability. It is necessary to optimize the responsibility mechanism that is carried out both vertically and horizontally. An accountability mechanism based on governance is needed where stakeholders interact with each other to influence public policy outcomes. They interact with each other in the management of public organizations to meet the needs of the community. Because the central role of the village head in the BUMDes management process, it will likely create a conflict of interest in maintaining accountability in the management of the BUMDes (Kurniasih, Wijaya, & Setyoko, 2019). BUMDes governance is required to implement the principles of corporate governance and accountability that refer to village financial management. Thus, it can reduce the circumstance of abuse of authority or corrupt behavior (Winarsi, Widyantoro, & Moechthar, 2018).

The success of the collaboration in the marketing of footwear between the MSME and BUMDes is influenced by two factors. First is human resources. Qualified human resources are needed to drive BUMDes performance. Sofyani, Atmaja, & Rezki (2019) stated that the factors that drive BUMDes performance are patriotism, enthusiasm, skills, education level, experience, honesty, sense of responsibility, sincerity, seriousness, concern for the environment and society. Second is the organizational mechanism. BUMDes management should be taken along to an organizational mechanism that is conducive to improve performance and productivity. The organization encourages teamwork, participation and good communication, and transparency of management responsibilities. The organization facilitates the working of visionary leadership, the achievement of performance targets, incentive mechanisms, and job satisfaction. The rural business development program should be emphasized on implementing functions of organization mechanism such as developing innovation, making economic partnerships, strengthening capital formation, applying positive values of all members, facilitating members into the agribusiness chain, and improving the cluster of the production system (Soetriono, Soejono, Zahrosa, Maharani, & Hanafie, 2019). It also requires supporting factors in terms of infrastructure and facilities, the technology of processing equipment, and processed product modification technology (Rahim, 2018)

For micro and small entrepreneurs, partnerships with BUMDes essentially do not change the market segment. Even if there is a change, it will happen gradually and produce positive mechanisms for MSME. Micro and small entrepreneurs can still produce footwear to sell to grocery stores whenever they want, without disrupting cooperation with BUMDes. Furthermore, the footwear marketing business activities by BUMDes can improve the welfare of entrepreneurs and footwear business workers. They even earn more income than the regional minimum wage in Bogor Regency area.

## CONCLUSION AND SUGGESTION

The financial analysis of the BUMDes footwear marketing business in collaboration with MSME shows business feasibility. The feasibility criteria for the footwear marketing business resulted in a net present value of 318.2 million rupiahs, a benefit-cost ratio of 1.026, and internal rate of return of 35% (more than a 5% discount rate), and a payback period of 2.56 years. The collaboration between BUMDes and MSME resulted in a business profit of 80 million rupiahs. The collaboration also contributes income to the village income of four million rupiahs per year to support the village development program. This can build independence to manage government services and village development.

The synergy through the joint marketing system prevents negative market competition. The collaboration also does not prevent micro and small entrepreneurs from producing and selling footwear to grocery stores whenever they want without disturbing the product supply for BUMDes. The collaboration also resulted in increased income for entrepreneurs and workers in the footwear business, which exceeded the regional minimum wages in the Bogor Regency.

BUMDes governance requires an increase in the quality of human resources to be more competitive and productive. BUMDes organizations are also encouraged to be able to facilitate the working of visionary leadership, performance targets, incentive mechanisms, and job satisfaction.

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# Government expenditure and poverty reduction in the proliferation of new administrative areas of Central Kalimantan, Indonesia

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H72; I38; J21

**ABSTRACT**

The proliferation of new region in Indonesia is one of the most challenging issues related to regional autonomy, financial management and poverty reduction. The purpose of this study was to analyze the relationship between government expenditure and poverty linked to the regional economic activity and labor absorption. The study used a quantitative research by means of time series data collected from the new proliferation areas in Central Kalimantan, including Pulang Pisau, Katingan, East Barito, Seruyan, Gunung Mas, Murung Raya, Sukamara, and Lamandau. The analysis method used the path analysis to estimate statistical parameters indicating relationship between variables. The research result shows that poverty significantly affects on government expenditure in the new eight regency in Central Kalimantan province. Poverty has also had an impact on government expenditure through the provision of employment and Gross Regional Domestic Product (GRDP). The local government is expected to manage more effectively regional finances that focus on community economic activities. The policy also opens investment opportunity to increase economic activity and create jobs based on the prominent regional product such as agriculture, plantation and mining sectors. Investment can increase employment and indirectly reduce poverty.

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## INTRODUCTION

Regional autonomy as a form of implementation of the principle of decentralization in government administration has been running since early 2000. This policy is to respond to the mandates of the community needs and is a conceptualization of the division of power theory concepts that divide the power of the state vertically. In this context, power is shared between the central government on the one hand and the regional government on the other, which is legally constitutional within the framework of the Unitary Republic of Indonesia. This condition has implications for changes in the development paradigm that prioritizes various public policies in government services, the dynamics and processes of democratization, community empowerment, and regional economic independence. This policy is seen as a new way to create a better direction in the governance scheme in all fields.

Since regional autonomy was implemented, the mechanism of governance has been complemented with broad, real, and proportionately responsible authorities. Local government authority is strengthened with regulations, transfer mechanisms, and fair use of resources as well as a transparent, effective, and efficient financial balance between the central and regional governments. Regional government financing to balance central and regional government finances is carried out on the basis of decentralization, deconcentration, and assistance tasks. Development carried out in the region refers to the allocation of the budget to carry out programs and activities in many sectors. In addition, local governments are required to explore other funding sources by optimizing the role and potential of the local economy.

One important factor influencing the success of decentralization is the use of sufficient financial, human, and physical resources to support the implementation of functions assigned to the regions. The problem of decentralization is not just an adequate amount of funds, but the extent to which regional authorities can determine the use of financial resources in the region.

According to Liu, Martinez-Vazquez, & Wu (2017), fiscal decentralization provides a significant advantage to the efficiency of public spending. Large potential losses can lead to increased regional inequality. Fiscal decentralization at the district level in China leads to greater inequality with provinces. Quantitative fiscal decentralization tends to have a greater influence on regional inequality in terms of expenditure. The fact is that decentralized spending is a much more significant indicator of decentralization. This is supported by the opinion of Qiao, Martinez-Vazquez, & Xu (2008) that experiences in China by developing theoretical models of fiscal decentralization where overall national economic growth and equity in the distribution of regional fiscal resources are two objectives pursued by the central government. This model was tested using panel data for 1985-1998, showing that fiscal decentralization in China has led to significant economic growth and regional inequality.

Fiscal decentralization has raised the attention of governments, academic studies, and international institutions intending to increase economic growth in recent years. Fiscal decentralization that has been developed takes into account fiscal autonomy and the fiscal interests of local governments. Regional and hierarchical fiscal imbalances are closely related to national, provincial, and local levels of government which are illustrated by new countries such as local Vietnam (Hong Vo, Nguyen, Ha, & Tran, 2019).

According to Siburian (2019), fiscal decentralization reduces regional income inequality. Fiscal decentralization reduces the regional income gap more significantly than the centralized system. The decentralization system gives regional governments autonomy in designing development programs that are in line with the unique characteristics of a particular region and distributing resources more equitably. Decentralization is needed by local governments to provide public services efficiently. Meanwhile, according to Salqaura, Mulyo, & Darwanto (2019), fiscal decentralization policy provides an opportunity for the provincial government to regulate the allocation of government spending. Total expenditure significantly contributes to the Gross Regional Domestic Product (GRDP) of the agricultural sub-subsector. Foreign investment has a significant positive effect on animal husbandry, and domestic investment has a negative one on the GRDP's food crops subsector. The provincial government needs to support the agricultural subsector by allocating expenditures that will increase the GRDP of the agricultural subsector and increase foreign direct investment and domestic investment into the agricultural subsector.

According to Canare, Francisco, & Caliso (2020), decentralization has become a public finance reform that is common among developing countries in the last few decades. Some advocates are pushing for decentralization reforms in response to the problem of increasing income inequality. With decentralization, local governments have better information about the needs and preferences of the residents. Meanwhile, the central government has better economies of scale in providing public services and usually has good access to more important resources.

López-Bazo, Monastiriotis, & Ramos (2014) argued over how the impact of open trade on regional disparities within the country, how regional disparities affect the quality of government at the national level, and how the effects of various forms of decentralization on income inequality at the household level. This contributes to a better understanding of the complex relationship between inequality and economic growth to stimulate future research on this topic. Soejoto, Fitrayati, Rachmawati, & Sholikhah (2016) argued that the development of regional development includes four indicators namely economic growth, fiscal decentralization, income inequality, and educational inequality. These indicators well describe the real conditions of public welfare. Fiscal decentralization between the central and regional governments is measured by the transfer of balanced funds. Balance funds come from taxes and natural resources fund sharing, general allocation funds, and special allocation funds. Thus, decentralization will pay more attention to fiscal decentralization, income inequality, and educational inequality. This becomes an important indicator of the success of economic development, not just looking at economic growth in general.

According to Syari, Syamsurijal, & Robiani (2017), simultaneous fiscal decentralization has a significant effect on district/city GRDP in South Sumatra. However, in a partial test, the ratio of district/city to provincial expenditure is positive and not significant. This relates to the allocation of spending that has not had a direct impact on the economy of the district so that it has not yet given results that can support economic growth. GRDP is the total value added of goods and services produced from all economic activities in all regions in a certain year period. GRDP is useful to show the ability of economic resources produced by a region. If a region has a large GRDP figure, it means that economic resources are also abundant.

Development expenditure (capital expenditure) is used for investment and implementing predetermined government programs. Government development spending is expected to grow continuously to accelerate the national economy, strengthen finances, and improve the welfare of the community. The amount of regional expenditure continues to increase in recent years, reflecting regional government policies and the direction of regional development.

The provincial government of Central Kalimantan supplies regional spending for strengthening regional development, stimulating regional economic growth, and reducing poverty levels. Analysis of regional expenditures needs to be carried out as a basis for the evaluation and correction of the implementation of development policies in Central Kalimantan. Government spending affects regional economic growth and reduces poverty levels in society. Economic growth in the province of Central Kalimantan in the last ten years has been above six percent (BPS of Central Kalimantan, 2020a). In the same period, the number of poor people also decreased from being 6.77% to 4.81% (BPS of Central Kalimantan, 2020b). To overcome poverty, there are several important factors including GRDP, labor absorption, and government spending. Government expenditure can also accelerate economic growth which in turn will increase the income of the population under the poverty line and at the same time reduce poverty levels.

Three sectors support the economic growth of Central Kalimantan namely (a) the agriculture, livestock, forestry, and fisheries sector, (b) the mining and quarrying sector, and (c) the processing industry sector. In recent years, three sectors have increased and played a significant role in the formation of GRDP. Local government plays an important role in synergizing the three sectors to support the success of regional development and economic growth. These sectors are also able to absorb a significant number of workers.

The primary sector allocation has become a consideration for the central government in supporting the proliferation of new eight administrative areas in Central Kalimantan Province based on Law No. 5 in 2020. The new areas are Pulang Pisau, Katingan, East Barito, Seruyan, Gunung Mas, Murung Raya, Sukamara, and Lamandau. Forestry is the most dominant sector in the new areas, bringing about forests product such as wood and rattan. Moreover, the agricultural sector displays an important commodity of oil palm, rubber, coffee, and cocoa. Meanwhile, the mining and quarrying sectors rely on coal and gold mining. The manufacturing sector is also commonly found in the proliferation areas. This industrial sector is formed from the processing of forest, agriculture, plantation, and fishery products, namely the palm oil industry, rattan processing industry, furniture, the food industry, and processed fishery products. On the contrary, coal, gold, palm oil, rubber, and cocoa become a prominent commodity of exports for new regions. These sectors are expected to drive economic activities and development of the proliferation areas rapidly.

Furthermore, the primary sector generally employs a very large number of workers and will certainly affect economic growth, increase productivity, and produce a high output. This will also immediately increase income and purchasing power so that the economic growth of a region will develop (Mankiw, 2019).

The study is aimed to analyze the relationship between government expenditure and poverty, and also concerning the regional economic activity and labor absorption in the new proliferation area in Central Kalimantan.

## RESEARCH METHOD

The research approach is quantitative research using secondary data. This research is confirmatory in which the researcher has determined several factors that influence government expenditure in eight regencies of Central Kalimantan Province. The new regencies are Pulang Pisau, Katingan, East Barito, Seruyan, Gunung Mas, Murung Raya, Sukamara, and Lamandau.

The variables in this study consisted of GRDP, labor absorption, poverty, and government expenditures from 2006 to 2018 in the new regency of Central Kalimantan Province. The operational definition of variables are as follows.

a. Regional government expenditure is the realization of total regional expenditure in the form of capital expenditure in the new regency of Central Kalimantan Province which is expressed as a percentage of provincial government expenditure.
b. GRDP is the overall value added of goods and services by various economic sectors in the new regency of Central Kalimantan Province, expressed as a percentage of provincial GRDP.
c. Labor Absorption is the number of working age population (aged 15 years and over) who work in the new regency of Central Kalimantan Province, expressed as a percentage of the provincial labor force.
d. Poverty is measured by the percentage of poor people in the new regency of Central Kalimantan Province.

Figure 1 explains the relationship among observed variables expressed through equations comprising the direct and indirect paths. The direct path includes the relationship between GRDP, poverty, and labor absorption separately to government expenditure. The indirect path is displayed through the effect of poverty on the government expenditure using GRDP and labor absorption as mediators.

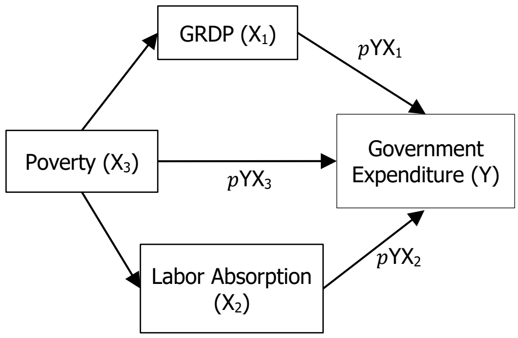


Figure 1. Path analysis model

Based on the path analysis above, obtained three equation models as follows:

$$Y1 = pYX3 + \varepsilon \quad (1)$$
$$Y2 = pYX1 + pYX3 + \varepsilon \quad (2)$$
$$Y3 = pYX2 + pYX3 + \varepsilon \quad (3)$$

in which X1 is GRDP, and X2 is labor absorption, X3 is poverty, Y is government expenditures, p is path coefficient, and ε is an error.

The analytical method uses path analysis, with the Statistical Package for the Social Sciences (SPSS) software application. The path analysis relationship construction is presented in Figure 1. Evaluation of the model in each path conducted using the t-test on each parameter of the equation.

## RESULT AND DISCUSSION

### Description of New District

Central Kalimantan Province initially has 6 regencies/cities that are Palangka Raya City, Kapuas Regency, East Kotawaringin Regency, West Kotawaringin Regency, South Barito Regency, and North Barito Regency. Based on various considerations, especially responding to the aspirations of the community for the effectiveness of development implementation at the local level. In 2002, the central government approved the proliferation of a new administrative area. The new eight regencies are Sukamara, Lamandau, Seruyan, Katingan, Pulang Pisau, Gunung Mas, East Barito, and Murung Raya. As a result, there are eight new regencies added to become 14 regencies (Figure 2).

The new administrative areas proliferated from the administrative areas as follows. Sukamara Regency is a formation of new administrative areas of West Kotawaringin Regency. Lamandau Regency is proliferated from West Kotawaringin Regency. Seruyan Regency is expanded East Katowaringin Regency. Katingan Regency is proliferated from Palangka Raya City and Kotawaringin Timur Regency. Pulang Pisau Regency is shaped from Palangka Raya City and Kapuas Regency. Gunung Mas Regency is developed from Palangka Raya City and Kapuas Regency. East Barito Regency is developed from South Barito Regency and North Barito Regency. Murung Raya Regency is developed from North Barito Regency. The percentage of GRDP in eight new regencies are presented in Table 1.

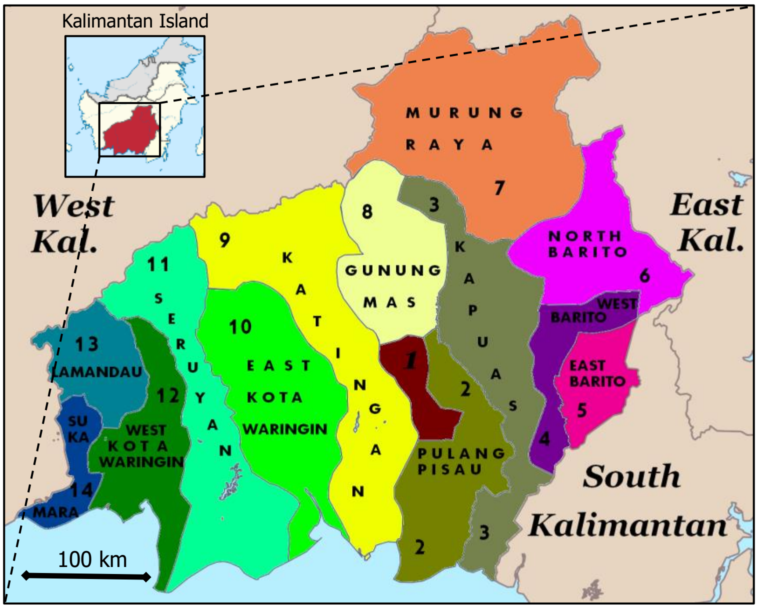


Figure 2. Map of the regency area in Central Kalimantan

Table 1 shows the pattern of Gross Regional Domestic Product (GRDP) distribution in eight new regencies. The largest percentage of GRDP during 2010-2018 in the Seruyan Regency with a value ranging from 5.82% to 6.74% and an average percentage of 6.33%. The lowest percentage of Sukamara Regency with the magnitude range from 2.80% to 2.95% and an average percentage of 2.88%. This shows that Seruyan Regency has more economic resources than other regencies. Meanwhile, Sukamara Regency has low economic resources. GRDP has a role as one of the main indicators in the economy. This economic indicator can be used to see the economic growth rate of a region. This GRDP is useful to show the ability of economic resources produced by a region.

Table 2 shows that the pattern of poverty in the eight new regencies during 2003-2018. The largest percentage of poverty found in the East Barito Regency with an average percentage range from 6.56% to 13.47% and an average percentage of 10.10%. The lowest percentage of Lamandau Regency ranged from 3.15% to 9.59% and an average percentage of 6.16%. This illustrates that the people in East Barito Regency have low welfare, while the people in Lamandau Regency are more prosperous than other regencies.

Table 3 shows the pattern of labor absorption in the eight new regencies. The highest labor absorption in the East Barito Regency with a percentage in 2011-2018 between 72.52% and 81.33% and an average percentage of 77.05%. The lowest percentage is in Murung Raya Regency in the range of 65.09% to 73.96% and an average of 64.45%. The higher the labor absorption shows that the area has high economic activities that devote a lot of labor absorption. As such, North Barito District has high employment opportunities compared to other regencies.

Table 1. GRDP in Eight New Districts in Central Kalimantan Province

| New regency | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| | ........ | ........ | ........ | ........ | % | ........ | ........ | ........ | ........ | ........ |
| Sukamara | 2.95 | 2.88 | 2.88 | 2.87 | 2.91 | 2.88 | 2.87 | 2.86 | 2.80 | 2.79 |
| Lamandau | 3.67 | 3.64 | 3.75 | 3.73 | 3.73 | 3.66 | 3.65 | 3.61 | 3.61 | 3.65 |
| Seruyan | 6.74 | 6.56 | 6.50 | 6.46 | 6.41 | 6.26 | 6.19 | 6.06 | 5.82 | 5.69 |
| Katingan | 5.19 | 5.15 | 5.26 | 5.30 | 5.41 | 5.48 | 5.49 | 5.43 | 5.43 | 5.47 |
| Pulang Pisau | 3.42 | 3.34 | 3.40 | 3.46 | 3.58 | 3.65 | 3.61 | 3.54 | 3.53 | 3.52 |
| Gunung Mas | 3.44 | 3.48 | 3.56 | 3.67 | 3.75 | 3.78 | 3.79 | 3.75 | 3.73 | 3.82 |
| Barito Timur | 5.64 | 5.79 | 5.62 | 5.47 | 5.29 | 5.10 | 5.04 | 5.05 | 5.09 | 5.01 |
| Murung Raya | 5.98 | 6.20 | 6.12 | 5.97 | 5.73 | 5.58 | 5.51 | 5.45 | 5.55 | 5.50 |

Source: (BPS of Central Kalimantan, 2020a)

Table 2. Poor People in Eight New Districts in Central Kalimantan Province

| New regency | 2003 | 2005 | 2007 | 2009 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ........ | ........ | ........ | ........ | ........ | ........ | % | ........ | ........ | ........ | ........ | ........ | ........ |
| Sukamara | 10.69 | 10.50 | 9.00 | 5.91 | 5.90 | 5.36 | 4.56 | 4.29 | 4.32 | 3.73 | 3.36 | 3.19 | 3.16 |
| Lamandau | 9.59 | 9.60 | 7.76 | 5.57 | 5.18 | 4.66 | 4.87 | 4.66 | 3.95 | 3.80 | 3.52 | 3.15 | 3.01 |
| Seruyan | 12.48 | 13.30 | 11.30 | 8.84 | 8.82 | 7.91 | 8.77 | 8.39 | 8.50 | 8.08 | 7.46 | 7.43 | 7.19 |
| Katingan | 12.67 | 11.90 | 8.68 | 7.00 | 6.47 | 6.10 | 6.55 | 6.42 | 6.53 | 6.23 | 5.78 | 5.22 | 5.02 |
| Pulang Pisau | 11.99 | 10.40 | 9.18 | 6.23 | 5.45 | 5.24 | 5.45 | 5.35 | 5.65 | 5.49 | 5.19 | 4.51 | 4.24 |
| Gunung Mas | 11.92 | 10.50 | 9.29 | 7.43 | 7.12 | 6.56 | 6.90 | 6.70 | 6.17 | 5.85 | 5.83 | 5.10 | 4.91 |
| Barito Timur | 13.47 | 13.50 | 12.30 | 9.24 | 9.27 | 8.52 | 8.83 | 8.55 | 8.41 | 7.64 | 7.17 | 6.56 | 6.32 |
| Murung Raya | 11.00 | 10.20 | 8.91 | 6.94 | 6.30 | 5.78 | 6.44 | 6.24 | 6.57 | 6.32 | 5.88 | 6.28 | 6.00 |

Source: (BPS of Central Kalimantan, 2020b)

Table 3. Labor Absorption in Eight New Districts in Central Kalimantan Province

| New regency | 2011 | 2012 | 2013 | 2014 | 2015 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| | ........ | ........ | ........ | ........ % | ........ | ........ | ........ | ........ |
| Sukamara | 73.49 | 72.49 | 74.46 | 75.53 | 71.60 | 73.61 | 74.18 | 73.37 |
| Lamandau | 75.19 | 77.56 | 71.90 | 65.55 | 71.76 | 73.00 | 67.93 | 68.65 |
| Seruyan | 74.41 | 65.60 | 68.75 | 68.37 | 74.23 | 72.86 | 74.90 | 71.66 |
| Katingan | 73.36 | 71.61 | 69.04 | 70.83 | 72.20 | 65.97 | 69.49 | 70.79 |
| Pulang Pisau | 73.36 | 69.51 | 66.93 | 67.34 | 74.48 | 74.72 | 70.98 | 75.31 |
| Gunung Mas | 73.44 | 79.05 | 76.94 | 72.24 | 77.44 | 74.87 | 75.76 | 73.78 |
| Barito Timur | 74.35 | 81.33 | 77.52 | 72.52 | 80.43 | 74.11 | 79.09 | 74.89 |
| Murung Raya | 73.96 | 70.91 | 69.69 | 65.09 | 71.73 | 68.83 | 69.58 | 66.49 |

Source: (BPS of Central Kalimantan, 2020c)

**The Effect of Poverty on Government Expenditures**

The effect of poverty on government expenditure in the new regency, Central Kalimantan Province presented in Table 4. The result shows that poverty has a significant effect on government expenditure in the new regency, Central Kalimantan Province. This is indicated from the F-statistic value of 0.000 which is smaller than alpha 0.05. The coefficient of determination is 0.211, which means that the diversity of data that can be explained by the model is 21.1%, the poverty variable influences government expenditure, the remaining 78.9% is influenced by other variables not yet included in the model.

The regression coefficient on the poverty variable (ρ) is 0.204 with positive parameters. This shows that every time there is an increase in poverty by 1%. It will have an impact on increasing government expenditure in eight new regencies, Central Kalimantan Province by 20.4%. The t-statistic value is 4.564 with p-value of 0.000 (p-value<0.05). It means that poverty has a significant effect on government expenditure.

Table 4. The Estimated Government Expenditure by Poverty

| Variable | ρ | t | p-value |
|---|---|---|---|
| Constanta | 4.684 | | 0.000 |
| X3 (Poverty) | 0.204 | 4.566 | 0.001 |

$R^2$=0.211

Government expenditure is expenditure carried out in the context of purchasing/procurement or construction of tangible fixed assets that have a value of more than twelve months for use in government activities. This study notes that poverty has a significant effect on government expenditure in the new regency, Central Kalimantan Province.

Government expenditure can have a significant impact on economic growth. Economic growth is a necessary condition for poverty reduction. The growth should spread to each income group, including the poor population group (Sukirno, 2002). Potential costs of inequality in fiscal decentralization as a development strategy. At the same time, it is important to stress the importance of implementing a fiscal equalization program to ensure the overall success of decentralization policies. Fiscal equity efforts that can be carried out by provincial governments tend to reduce the adverse effects of fiscal decentralization on intra-provincial inequality (Liu et al., 2017). According to Asmara & Suci (2019), fiscal decentralization aims to increase regional financial independence and to reduce financial dependence on the central government, but in practice, there are still many regions that depend on central funding for regional development. Regional financial independence has a significant positive effect on economic growth, while the Balancing Fund ratio has a significant negative effect on economic growth.

### The Effect of Poverty through GRDP on Government Expenditure

The effect of poverty through GRDP on government expenditure in the new regency, Central Kalimantan Province is presented in Table 5. The table indicates a significant effect of the poverty variable through GRDP on government expenditure. This is indicated from the F-statistic with the p-value is smaller than alpha 0.05. The coefficient of determination is 0.364 which means that the diversity of data explained by the model is 36.4% of the poverty variable through GRDP affecting the government expenditure, the remaining 63.6% is influenced by other variables not yet included in the model.

Table 5 shows that the poverty and GRDP variables simultaneously affect government expenditure. The regression coefficient on the poverty variable through GRDP (ρ) is -0.210 with a negative coefficient and coefficient of 0.572 the GRDP variable. This means that if there is an increase in poverty and GRDP by 1%, it will have an impact on decreasing government expenditure in the eight new regencies of Central Kalimantan Province with p-value of 0.001. This means that poverty through GRDP has a significant effect on decreasing government expenditure.

Table 5. The Estimated Government Expenditure by Poverty Through GRDP

| Variable | P | t | p-value |
|---|---|---|---|
| Constanta | 2.053 | | 0.000 |
| X1 (GRDP) | 0.572 | 6.304 | 0.000 |
| X3 (Poverty) | -0.210 | -1.025 | 0.001 |

$R^2$=0.364

The economic growth shows the extent to which economic activity will generate additional community income in a given period. In other words, the economy is said to have experienced growth if the real income of the people in a particular year is greater than do so the previous year. Poverty is a classic problem that is still being faced by any region or country. Many countries have not been able to fully overcome poverty, especially developing countries like Indonesia. The results of the study note that poverty through the GRDP has a significant effect on government expenditure in the new regency, Central Kalimantan Province.

Nyoman, Sudewi, & Wirathi (2013) argued that the implementation of fiscal decentralization policies has a positive impact on the development of the potential and creativity of local governments. Effectiveness in managing the results of regional wealth affects regional revenue which can then be used to improve the welfare of the community. Fiscal decentralization and economic growth simultaneously have a significant effect on poverty. Thus, fiscal decentralization and economic growth significantly have reduced the number of poor people.

According to Salqaura et al. (2019), one of the government's interventions to encourage increased agricultural sector output is through fiscal policy in the form of government spending. The government expenditure used is the total provincial government expenditure in the aggregate. The existence of a fiscal decentralization policy provides an opportunity for the provincial government to regulate the allocation of government spending. The provincial government needs to support the agricultural subsector by allocating expenditures that will increase the GRDP of the agricultural subsector and increase foreign direct investment and domestic investment into the agricultural subsector.

Suwardi (2011) argued that local government expenditure in the infrastructure and education sectors significantly influences agricultural productivity and poverty. The study also found that the effect of local government expenditure on poverty was highest shown by road infrastructure, followed by literacy and irrigation rates.

**Effect of Poverty Rate through Labor Absorption on Government Expenditure**

The effect of poverty through labor absorption on government expenditure are presented in Table 6. The table shows a significant effect of the poverty variable through labor absorption on government expenditure. This is indicated by the F-statistic with p-value is smaller than 0.05. The coefficient of determination is 0.281 which means that the variety of data that can be explained by the model is 28.1% of the poverty variable through labor absorption affects government expenditure, the remaining 71.9% is influenced by other variables not yet included in the model.

Table 6. The Estimated Government Expenditure by Poverty Through Labor Absorption

| Variable | ρ | t | p-value |
|---|---|---|---|
| Constanta | 14.962 | | 0.000 |
| X2 (Labor Absorption) | -1.003 | -3.980 | 0.002 |
| X3 (Poverty) | -0.371 | -2.942 | 0.015 |

$R^2$=0.281

Table 6 shows that the variables of poverty and labor absorption simultaneously affect government expenditure. The regression coefficient on the poverty and labor absorption variables are -0.371 and -1.003, respectively. It means that an increase of 1% in poverty and labor absorption variables will have an impact on decreasing government expenditure in the eight new regencies of Central Kalimantan Province. This means that poverty through labor absorption has a significant effect on decreasing government expenditure. In other words, an increase in government spending will be able to affect the decrease in the number of poor people through efforts to expand job opportunities.

The labor force is human capital that drives economic activities that produce goods/services in the regions. Poverty is a condition in which a person or group of people is unable to fulfill their basic rights to maintain and develop a dignified life. Poverty is also seen as the inability of the economy to meet basic food and non-food needs (measured in terms of expenditure). The growth of the workforce is traditionally regarded as one of the positive factors that spur economic growth. The greater number of workers means that it will increase the level of production, while greater population growth means the size of the domestic market is greater (Todaro & Smith, 2015). Based on the results, the study notes that the level of poverty through employment has a significant effect on government expenditure in the new regency, Central Kalimantan Province.

According to Fahd & Rasyid (2017), regional autonomy provides a more flexible regional government management in implementing its development strategy, especially in terms of allocating regional spending. The allocation of capital expenditures affects the level of poverty but does not directly affect the unemployment rate.

**Research Implication**

The results of this study provide an overview of the relationship between government expenditure, GRDP, labor absorption, and poverty rates in new proliferation areas in Central Kalimantan. This study provides the implications as follows.

First, poverty shows a significant effect on government spending. This is certainly inseparable from the government's process in developing the regional economy, so that the government is expected to be more effective and efficient in managing regional finances that provide benefits to the economy of the community such as the provision of economic infrastructure. Government policy is to ensure the availability of strategic staples and reduce the community problem and empower the poor. Strategies that can be carried out by the government include increasing the competitiveness of regional superior products, developing the creative economy in the entrepreneurial community, and developing household businesses. It is expected to encourage the economy's creativity and increase added value to regional production in Central Kalimantan. According to Ferraro & Simorangkir (2020), poverty alleviation programs need to be oriented towards environmental protection to prevent deforestation. Local governments need to understand that the poor are generally very dependent on natural resources and on deforestation as a means of obtaining consumer goods and providing livelihood security.

Second, an increase in labor absorption effects reducing the poverty rate. The government in the expanded region needs to carry out promotion and investment cooperation, as well as to facilitate investment for the public and the private sector. This will open up employment in various sectors and can increase the absorption of regional labor in the new regency, Central Kalimantan Province. At the same time, local governments also need to pay attention to food crop farming for the sustainability of local people' lives that fulfill environmental conservation aspects (Wardie & Sintha, 2018). Agricultural life of local people who meet conservation principles adjacent to forests, which hold a harmonious relationship of forest and land, by managing land in a limited area (1-2 ha) without the risk of land fires (Nopembereni, Sugiyanto, Sukesi, & Yuliati, 2019). According to Bappenas (2008), the economic performance of new autonomous regions is lagging behind in comparison to parent regions and other regions, generally due to limited human resources, and inadequate government support for the economy through public investment.

Third, poverty has been successfully reduced in the last few years. The government needs to make efforts to perform more optimally to create more jobs and improve the economy so that poverty can be further suppressed. Government policies are directed at increasing the application of agricultural technology, increasing production in the plantation, fishery, and forestry sectors. The plantation sector is dominated by oil palm, rubber, coffee, and cocoa plantation companies. The mining and quarrying sector that has priority is coal and gold mining. The manufacturing sector is more focused on the processing of forest products, agriculture, and plantations, namely the palm oil industry, the rattan processing industry, furniture, the food industry from agricultural products and processed fishery products. In the short term, regional proliferation encourages changes in personnel performance and development spending needed to stimulate demand for goods and services produced by the local area. Local governments generally fully support efforts to develop agriculture or the primary sector as the economic basis for the new autonomous regions. This results in a more even distribution of the new autonomous economic potentials that are equal to the parent regions (Bappenas, 2008).

## CONCLUSION AND SUGGESTION

Poverty shows a significant effect on government spending in the eight new regencies in Central Kalimantan Province. These findings indicate that the government is expected to be more effective and efficient in managing regional finances that focus on community economic activities, such as economic infrastructure development. The regional proliferation policy also opens opportunities and is more flexible for local governments in managing development strategies through the allocation of regional spending.

Poverty also has an impact on government spending through the provision of employment and GRDP. These findings indicate that increasing economic activity can provide employment and welfare so that poverty can be further reduced.

The new proliferation areas are enhanced to aggressively promote investment to increase economic activity and create jobs. This work is expected to increase community income and reduce poverty in the regions. The government can allocate government spending to stimulate an increase in the GDRP and open up investment opportunities for the public and the private sector in the agriculture, plantation, and mining sectors. Furthermore, the investment can increase employment and indirectly reduce poverty.

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