The Impact of Empowering Local Communities Through Food and Beverage Businesses at The Palo Naga Tourism Object, Deli Serdang Regency, North Sumatra Province

Yon Suprapto¹, Syahrul Syahrul², Masditou³, Nova Syahfitri⁴
Politeknik Pariwisata Medan, Indonesia¹,²,³,⁴

Article Info
ABSTRACT

This study aims to determine the empowerment of local communities through food and beverage businesses at the Palo Naga tourist attraction, the effect of selling traditional food and drinks on increasing visitor interest in coming to the Palo Naga tourist attraction. This research is a quantitative descriptive research and the samples of this research are several food and beverage sellers and visitors of the Palo Naga tourist attraction. The results of this study are that the management of the Palo Naga tourist attraction is very serious to guide the community, especially housewives in supporting the Palo Naga tourist attraction to sell in the tourist attraction area. All outlets are provided by the manager to be used as a place to sell free of charge and all sellers involved are from local residents. To improve the skills of these women sellers, the management often organizes training, both training on food processing and making souvenirs, in collaboration with some agencies by providing vocational homes as places for the training. The existence of the Palo Naga tourist attraction which utilizes the community's paddy fields besides having a cool natural and village feel as a visitor attraction, turns out to be a reason to enjoy the atmosphere and traditional food at this tourist attraction has a very strong influence on visitors coming. Most of the food and drinks are rather difficult to find in the city and the transaction system is also quite interesting where payments to sellers are not in cash, but using a medium of exchange made of wood.

Corresponding Author:
Syahrul Syahrul
Politeknik Pariwisata Medan, Indonesia
Email: syahrulnugraha27@yahoo.com

INTRODUCTION
Tourism development is able to stimulate business activity to generate significant social, cultural and economic benefits for a country (Tsekouropoulos et al. 2022). The opportunity for the tourism sector is prospective, because apart from being one of the producers of tourism economic growth, the tourism sector is expected to have the opportunity to become a growth driver for other development sectors, such as the plantation, agriculture, trade, industry and others (Kawuryan et al. 2022). Tourism is a new type of industry capable of producing rapid economic growth in providing employment, increasing income, living standards and stimulating other productivity sectors. Furthermore, as a complex sector, it also includes real classic industries such as the handicraft and souvenir industry (Markose, Tazhathethil, and George 2022).
Lodging and transportation are economically also seen as industries. The emergence of new tourist sites in various regions in Indonesia provides another very diverse and dynamic dimension (Berriane 2020). Even areas where previously the people never thought that their area would become a tourist location because they felt they did not have the potential to be made or developed into a tourist area, but now it has turned into a tourist location that is quite attractive to visitors from various regions (Brondoni 2020). The community's creativity and innovation have been able to conjure up an area that previously had little potential to be used as a tourist area, but by utilizing all the resources they have, they are able to create a new atmosphere, namely making the area an attractive tourist location (Ridwan et al. 2020). Currently, various regions in North Sumatra have presented tourist sites with natural nuances that are packaged in such a way that it is interesting to visit. Areas that have rice fields or farms or plantations have been used to become new tourist sites. Rice field tourism has become one of the agricultural tours (agro tourism), which is now starting to be found in many areas in North Sumatra which are packaged with tourist villages where the village community is directly involved in the development of these tours (Ramli and Ujang 2020). This is because the community feels the benefits directly from tourism activities in their area. Many things can be done by the community in order to increase or earn income through tourism activities such as renting rooms as homestays, food and beverage businesses, vehicle rentals, parking services and so on. Therefore, the role and involvement of the community in developing tourism in the village will greatly determine the sustainability of tourism in the area. So it can be said that the success of tourism activities in the village is very dependent on the intensity of activities, location, management and community support. In terms of activities, the involvement of the local community cannot be ruled out and the planning formulation must also be adjusted to the wishes of the local community. The pattern of life of rural communities in Indonesia, which generally has special characteristics, such as the culture of the people, which is still original and sometimes unique, is used by the residents as a commodity for tourists or visitors from other regions (Novellia, Eriawan, and Triana 2021).

The Palo Naga tourist attraction is located in Deli Serdang Regency, North Sumatra Province, Indonesia. Deli Serdang Regency itself is one of the regencies located in the northern part of Sumatra Island. This village has attractive tourism potential due to its natural beauty and rich cultural heritage (Aman et al. 2021). The Palo Naga tourist attraction can be linked to the efforts of the local government and local communities to develop the tourism sector as a source of income and economic development (Sucipto, Wati, and Kartanegara 2021). This village has attractions such as beautiful village natural scenery, cultural uniqueness, or other tourist attractions that attract tourists. The development of the Palo Naga tourist attraction can also be part of the local government's strategy to reduce economic disparities between regions and improve community welfare (ŞALVARCI 2022). By exploiting the existing tourism potential, it is hoped that it can create jobs, increase people's income, and improve the standard of living of the local population. The local government and various related
parties have attempted to design community development and empowerment programs at the Palo Naga tourist attraction, such as forming tourism awareness groups, tourism technical training, assistance in business development, improving tourism infrastructure (Subedi 2017). With the efforts to develop and empower the Paloh Naga tourist attraction, it is hoped that it can provide economic, social and cultural benefits for the community local community. In addition, it is also hoped that it can strengthen the tourism sector in Deli Serdang Regency and provide an interesting experience for tourists visiting the area (Pasrizal et al. 2022).

The objective of this study were to determine the empowerment of of local communities through the food and beverage business at the Palo Naga tourist attraction and to determine how the sale of traditional food and beverages affect the increase in visitor interest in coming to the Palo Naga tourist attraction (Nurul Badriyah et al. 2023).

METHODS
This research is quantitative descriptive. (Chen and Cheng 2022) says descriptive research is research conducted to determine the value of the independent variable, either one or more (independent) variables without making comparisons, or linking it with other variables. Meanwhile, according to (Sadat, Handayani, and Kurniawan 2020), descriptive research is research conducted to describe certain symptoms, phenomena or events. Data collection is carried out to obtain information related to phenomena, conditions, or certain variables and is not intended to test hypotheses. The main purpose of the analysis is to provide an illustrative and/or summary description that can help readers understand the types of variables and their interrelationships (Ismayanti and Kholiq 2020). While the samples for the visitors were as many as 60 people. Sampling was done randomly. To collect data from respondents, this study used data collection tools in the form of physical observation, literature study, interviews, questionnaire distribution. The distribution of questionnaires to the respondents who were the samples in this study was personally administered (personally administered questionnaires) in which the researcher dealt directly with the respondents and provided necessary explanations about the questionnaires and could be collected immediately after being answered by the respondents. Answers use a 5-point Likert scale. The scores used are as follows:

- a. Answers strongly agree = 5
- b. Agree answer = 4
- c. Neutral answer = 3
- d. Disagree answer = 2
- e. Answer strongly disagree = 1

The analysis technique used in this research consists of 2 techniques. For the formulation of the first problem using a technique is descriptive qualitative technique in which the exploratory method is used in the process. As for the second problem formulation using correlative quantitative analysis techniques.
RESULTS AND DISCUSSION
In data analysis in this study, the number of respondents who distributed the questionnaire was 60 questionnaires for visitors and 30 questionnaires for traders and all of these questionnaires could be collected again. To analyze the answers from the questionnaire that had been collected, it was analyzed in the following stages: The data collection process aims to find out the responses or responses of the food and beverage sellers at the research location regarding the facilities, their interests and expectations with the business they are doing at the tourist attraction. Furthermore, to complete the data, the researcher also conducted interviews with the manager of the tourist attraction.

The Main Motivation of Traders Involved in the Food and Beverage Business at the Palo Naga Tourism Object
Based on the interview results, the answer was that the main goal of the traders was to increase family income and their desire to support local tourism development. It is known that this tourist attraction is open on Saturdays and Sundays, and the number of visitors on Sundays or on other holidays is quite high, so this certainly increases their sales. They stated that their income on Sundays was between IDR 300,000 and IDR 500,000. This is of course a large enough income and able to supplement family income. In line with this, they also realize that the progress of their business is very dependent on the number of visitors to these tourist objects, so they are trying to support tourism development in the area. Based on the results of interviews with object managers, the answer is that all products sold must use natural and original ingredients without preservatives. To ensure this, each product will be tested first (test panel) before being sold.

Efforts to Improve Skills in Food and Beverage Business Activities
As an effort to increase the skills and knowledge of traders about product processing, the object manager often invites from various agencies to provide training to traders. Training activities are usually carried out at the vocational home provided by the manager. Several agencies that have provided training include Bank Sumut, Angkasapura Kuala Namu and various other institutions. The training for the community provides much-anticipated benefits for improving the skills of these traders.

Main Challenges or Problems Faced in Running a Food and Beverage Business at the Palo Naga Tourism Object
Unlike in other tourist areas in general where usually in tourist areas there are many community groups that make quotations from traders who sell goods. This does not happen at this tourist attraction because everything is handled by the object manager. So far, according to the business actors, the problem they are complaining about is that when the rice harvest season has ended and the rice fields have dried up, the number of visitors has also decreased. This certainly affects the sales of their products. The
management continues to try to bring in visitors at these times by displaying various attractions such as holding traditional games in the rice fields, educational tours and holding various folk festivals which are expected to invite more visitors.

**Plans to Develop or Diversify the Food and Beverage Business in the Future**

Based on the results of interviews with traders, it is known that traders who are quite old, namely more than 60 years, they say that they have had enough with the business they are currently doing because the income they earn is more than enough. However, it is different from those who are younger. They are very optimistic and willing to learn more things to improve their skills and develop their business so that on another day they can still run their business in other places such as in their home environment with a variety of different menus. They even wanted to open a restaurant and catering business.

**The Role of Managers of Palo Naga Tourism Objects in Empowering Local Communities**

The people of Palo Naga realize that the existence of this tourist attraction has a positive impact on the community. They are quite aware that this tourist area is very dependent on visitors. In an effort to provide maximum service to visitors, the manager does various things by involving various levels of society ranging from children to adults. The participation of the people who are directly involved in this activity is divided into several groups such as traders, who are responsible for providing food and drinks, especially on Saturdays and Sundays and at various other events organized by the manager. Furthermore, the role of the youth is as a counter guard where payment is exchanged made of wood and a place for traders to exchange the exchange tool for real value (rupiah) to the exchange officer. The making of this medium of exchange is also carried out by the craftsmen who are sold to the tourism manager. Students from elementary to high school are also involved in several cultural activities and traditional games which are held at certain times. Based on the results of interviews with local community leaders, it is known that community involvement in tourism activities in Palo Naga is very high and tourism managers also prioritize local residents to be involved in every tourism activity in that location.

**Management Support for Improving the Community's Economy through Food and Beverage Sales Business Activities**

In line with the Palo Naga tourism object development program which seeks to help the economy of the surrounding community, especially in the field of culinary breakfasts and lunches which have been running for about 4 years, the manager is trying to provide several small stalls arranged in a row along the road to the rice fields and several cafes. a simpler one that is bigger in size near the open stage. The manager also provides a swimming pool for children, toilets, bathrooms and an open stage for cultural arts performances. To support tourism activities in the area, the management
through BUMDes provides several spots such as traditional art galleries and character education which are devoted to the development of art and the development of children's and youth education. Production houses and vocational village programs are provided as centers for the village's superior food products. The following table presents the responses of the community, especially women selling traditional food and beverages who have been carrying out activities at these tourist objects.

<table>
<thead>
<tr>
<th>Tabel 1. The Responds Of The Seller about Their Selling Activities at Palo Naga Tourism Objetc</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source : Primary Data

Based on table 1, of the 8 variables of merchant satisfaction at the tourist attraction, traders are generally very satisfied with a score of 4.90. The equal rights and obligations of fellow traders as well as management support for the progress of the business ranks very satisfied with a perfect score of 5.00. The management's commitment to provide rights and obligations is carried out to all traders who are directly involved in the location. The selling price for each product is determined by the manager. Product feasibility for sale must follow the criteria set by the manager, such as taste, portion, and spices used. All products made must use natural ingredients and if food is found that uses flavorings, the manager will not give the seller's permission to be sold at that location. Transactions must be made using a medium of
exchange that can be purchased through the available counters. Meanwhile, merchants

can exchange their coins at the counter with a discount of 10% for the manager's cash
cleaning costs and workers' salaries. Furthermore, the response of traders who are

happy to trade in that location with a value of 4.97 is a very good value where the

conditions are very comfortable and conducive for traders because they avoid various

quotations and the availability of selling facilities and a clean environment. This is one

of the reasons they like to sell at this tourist spot. When we asked about the 10% quote

from their sales, they unanimously stated that they did not mind at all because it was

clear that the purpose was for cleaning, security and management costs for the tourist

attraction. The response of traders who stated that the sales results at that location

were very profitable, scored 4.91, which was a very good assessment. In general, the

products sold at this tourist attraction always run out every time they sell. Some sellers

usually finish selling at 11 a.m. with an average selling price of Rp 1,000,000 to Rp

1.500,000 with a profit of around Rp 300,000 to Rp 500,000, especially on Sundays. Of

course this is a source of livelihood for residents, especially for those who sell in that

location. The feasibility of the place to sell gets a score of 4.82 which indicates that the

place to sell the traders is in the very good category. Even though the shop is made of

wood, it is well maintained. The uniqueness and uniqueness of this tourist location
turns out to be a magnet for people to enjoy recreation while enjoying snacks sold by

traders at the location, even though on Saturday the number of visitors is not as busy

as on Sunday. The number of buyers who are always busy is the reason traders really

like trading at that location. Traders give a value of 4.81 for this indicator. Sales that

buyers always buy get a score of 4.69. This indicates that transactions between sellers

and buyers at these tourist sites are very promising and provide good economic value

for traders. The uniqueness of the transaction system that uses an unusual medium of

exchange is one of the attractions and the products being sold are also traditional food

and drinks which are now hard to find so this is also an attraction for visitors.

The Impact of Food and Beverage Products (X) on Visitor Interests in Palo Naga

Attractions (Y)

An analysis of the impact of food and beverage products on the interest of visitors to

the Paloh Naga tourist attraction was put forward through the stages of analysis used

through the SPSS program on the answer data of respondents which were used as

research objects. The relationship between food and beverage products on the interest

of visitors to the Palo Naga tourist attraction can be analyzed using a correlation test

with the following stages:

1. Determine the hypothesis with a one-tailed test, where:
   H0: \( \rho = 0 \), There is no relationship between food and beverage products and the
   interest of visitors to the Palo Naga tourist attraction.
   Ha: \( \rho < 0 \), there is a relationship between food and beverage products and the
   interest of visitors to the Palo Naga tourist attraction.

2. Determine the decision-making criteria by providing an interpretation of the
   value of the correlation coefficient on the value of \( r \). The provisions according to
Sugiyono (2013) guidelines for providing an interpretation of the correlation coefficient are as follows:

0.00 - 0.199 = very low
0.20 - 0.399 = low
0.40 - 0.599 = moderate
0.60 - 0.799 = strong
0.80 - 1.000 = very strong

3. Determine the decision-making criteria by comparing the calculated t value with t table, that are:
   - t count value > t table value then H0 is rejected.
   - t count value< t table value then H0 is accepted.
   In determining t count a two-tailed test is used:
     - If Sig. (2-tailed) < α then H0 is rejected.
     - If Sig. (2-tailed) > α then H0 is accepted.

4. Interpretation of Data Analysis Results

   Correlation testing in this study was processed using SPSS 16.0 for Windows on the data obtained from the respondents' answers. In the analysis to determine the magnitude of the influence of food and beverage products on the interest of visitors to the Palo Naga tourist attraction, it can be stated from the value of the determination in the summary model (Table 2).

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.912</td>
<td>.831</td>
<td>.798</td>
<td>2.47633</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Food and Beverage Products

Based on the summary model in table 2, where the criteria for interpreting the coefficient of determination show that there is an influence of food and beverage products on the interest of visitors to the Palo Naga tourist attraction of 83.10% (0.831 x 100%). It can be concluded that the determination of food and beverage products at the Palo Naga tourist attraction is able to attract visitors to come because of the uniqueness of traditional food and drinks and this gives a strong position, when compared to the remaining 16.90% (100% - 83.10 %) influenced by other factors not included in this study. In analyzing the correlation between variables, it can be stated in the table 3.
Table 3. Constant Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>St. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>12.745</td>
<td>2.436</td>
<td>5.237</td>
</tr>
<tr>
<td></td>
<td>Food and Beverage Products</td>
<td>.381</td>
<td>.051</td>
<td>.686</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Visit Interest

Source: Primary Data, 2023

The correlation value between food and beverage products at the Paloh Naga tourist attraction with the interest of visitors to come is 7.500, tcount 7.500 > ttable 1.660 then H0 is rejected. This means that there is a positive influence between food and beverage products at the Paloh Naga tourist attraction with the interest of visitors to come. The significance level is 0.000 < α, then H0 is rejected, which means that there is a positive and significant influence at the 0.05 significance level between the presence of food and beverage products at the Paloh Naga tourist attraction and the interest of visitors to come. Meanwhile in determining the category of influence between variables can be seen through the correlation relationship (Table 4).

Table 4. Corelations

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Food and Beverage Products</th>
<th>Visit Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Beverage Products</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
</tr>
<tr>
<td>Visit Interest</td>
<td>Pearson Correlation</td>
<td>.874**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data, 2023

Based on the table 4, where the correlation value between food and beverage products at the Paloh Naga tourist attraction and the interest of visitors to come is 0.874. In accordance with the provisions of the criteria for influence between variables, the two variables are in the "strong" category, namely between 0.80 - 1.00. So it is known that
the influence of food and beverage products on the Palo Naga tourist attraction with the interest of visitors to come is in a very strong category. Thus, the determination of food and beverage products as a Palo Naga tourist attraction with visitor interest comes in the strong category.

Discussion
Denai Lama Village is located in the north of Deli Serdang Regency with an area of 295 hectares, consisting of 125 hectares of land and 174 hectares of paddy fields. The current population of Denai Lama Village is 3723 people, consisting of 989 heads of households, with the average population being farmers and farm labourers, where rice is the main commodity in paddy fields apart from vegetables. Meanwhile, the land area is mostly planted with coconut, banana, oil palm and melinjo trees which usually grow around residential areas.

Denai Lama Tourism Village has four tourist support spots, they are:
1. Traditional Art and Character Education Workshops
   Sanggar Lingkaran is an organization engaged in the field of art and the development of children's and youth education, with the aim of forming character by increasing self-confidence during the transition to adulthood. Provides traditional music and dance training for children and youth in Denai Lama Village and its surroundings. Strengthening children and youth through character education, with participatory methods is the main attraction in the education process for children and adolescents.
2. Palo Naga Agrotourism
   Palo Naga Agrotourism presents views of rice fields supported by spots such as; tracking, open stage, gazebo, children's pool, meeting hall and the Palo Naga traditional market (PTPN) which sells traditional breakfast menus and farming products in the middle of a 75 hectare rice field while enjoying traditional dance and music performances.
3. KAMU Market (Youth Work Market)
   This spot is located under the trees packed with the concept of a traditional market that sells traditional food while enjoying traditional dance and music performances. What's interesting about this spot is that the payment system uses shell coins (tempu) as a medium of exchange.
4. Production House
   The production house is a center for small business training and product marketing by groups of women made from basic ingredients melinjo, papaya and banana in the Vocational Village Program which are the main products of Denai Lama Village, such as; the melinjo group is currently producing a variety of food from melinjo-based ingredients such as: - melinjo dodol – melinjo chips, the Banana Processing Group is currently producing food variants from banana-based ingredients such as: - banana cake (dry and wet/steamed) - banana dodol - banana chips - banana chips The Papaya Group currently produces food
variants made from papaya ingredients such as: - papaya lunkhead - candied papaya (dry and wet). The Handicraft Group, which currently has made many crafts from wood waste in the furniture business, coconut shells, bamboo and palm oil sticks, such as: - nameplates (tables) from wood waste in the furniture business - fruit baskets and parcels and plates made of coconut sticks palm.

Activities and Products of Kampoeng Lama Tourism Objects

1. The Kenduri Sawah Festival
Kenduri Sawah or eating together as a means of prayer so that agriculture runs smoothly and is kept away from all plant pests and diseases. This "Kenduri Sawah" is a place for friendship between fellow citizens, creating cohesiveness and applying village cultural values through the "Kenduri Sawah" Festival.

2. Tour Packages
Pakpong (Kampong Package) in this tour package tourists get: Edu farming, improving personal and social skills through planting rice and vegetables observing rice fields and catching fish in groups breakfast, enjoying breakfast in art galleries and lunch in rice fields Agrotourism Palo Naga with village food.

CONCLUSION
Based on the description in the previous chapter, the following conclusions and suggestions can be described as follows: The manager of the Palo Naga tourist attraction is very serious in fostering the community, especially women as sellers in supporting the Palo Naga tourist attraction to sell in the tourist attraction area. All outlets are provided by the manager to be used as a place to sell free of charge and all traders involved there are from local residents. To improve the skills of these women traders, the management held training on food processing and making souvenirs in collaboration with various agencies by providing vocational homes as places for the training. From the results of food processing training in the village, three groups of mothers have been formed based on the products they make, such as the melinjo group which produces and sells various food products made from melinjo, the banana group which produces and sells various foods made from bananas, and the papaya group. However, these products are still being processed and sold at the production house and have not yet reached the tourist attraction. The existence of the Palo Naga tourist attraction which utilizes the community's paddy fields besides having a cool natural and village feel as a visitor attraction, it turns out that the reason to enjoy the atmosphere and traditional food at this tourist attraction has a very strong influence on visitors coming. Most of the food and drinks are rather difficult to find in the city and the transaction system is also quite interesting where payments to sellers are not made in cash, but use a medium of exchange made of wood where each piece of wood is worth Rp 2,000. In addition, to further increase the income of food and beverage traders at the tourist attraction, the management should make cooking class packages specifically for traditional food which are carried out per package. Then provide plant and fruit seeds to be planted around people's homes and the fruit will be purchased
by the management through the BUMDes (Company Owned by Village) that have been formed to then be sold to traders for processing. That way more people will benefit from the existence of these tourist objects.

Furthermore to give a more traditional touch, food and beverage sellers should wear Javanese or Malay clothing when selling, so that it will be more attractive. It is also important to increase the types of food and beverage products sold by combining them with Malay specialties because there are also quite a number of Malay ethnic groups in the area. The manager also needs to provide spots for taking pictures by renting out traditional clothes and farmer's clothes for visitors. Managers should also sell souvenirs to be brought home by visitors such as products produced at production houses.

REFERENCES
Novellia, Aurora, Tomi Eriawan, and Era Triana. 2021. “PENGEMBANGAN PAKET WISATA WARISAN BUDAYA (CULTURAL HERITAGE TOURISM) DI KABUPATEN DHARMASRAYA.” *Abstract of Undergraduate Research, Faculty of Civil and Planning Engineering, Bung Hatta University* 2(3).


