

## **Analysis of Development of Culinary Tourism Management Model in Case Study East Luwu District Based On SIG**

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### **ABSTRACT**

The rapid development of technology makes human needs for information about tourist attractions require the availability of appropriate information systems, therefore the geographic information system of culinary attractions is developed to help tourists. East Luwu Regency is one of the regencies in South Sulawesi that has the potential of culinary tourism which is said if it is not managed well. For this reason, a website application based on geographic information about restaurants serving typical foods of East Luwu Regency was created. In this application, you can see the Login list of the distribution of restaurant locations.

Keywords: East Luwu Regency, Website, Traditional Food.

### **INTRODUCTION**

The current era of globalization is competition in all sectors increasingly fierce, facing this problem, every organization must have competitive competition with other organizations. To achieve certain advantages, each organization performs a variety of ways, such as creating products with unique designs, using modern technology, organizational design and, most importantly, effective and efficient human resource management (Journal et al., 2018). Besides food, authenticity can indeed attract visitors to the destination. On the other hand, destinations use food as the main attraction. That is why some countries develop their destination marketing strategies by focusing on food. Therefore, it is important for destination culinary marketers to know the perception of target consumers about destination culinary and how to influence their intention to visit through effective marketing strategies. Furthermore, Hobsbawm and Ranger (1983) argue that dishes that are very well known for their taste and quality can be developed into tourist products. Eco-brand can be used to position products offered by companies as environmentally friendly products, making it easier for consumers to distinguish brands of environmentally friendly products from brands that are not environmentally friendly in the same product category (Wolok, 2019).

Besides the potential of the tourist attraction area owned by the East Luwu Regency, culinary tourism can be an alternative in developing the tourism industry. Culinary tours lately are increasingly popular with tourists. Not only because it was popularized by various shows produced by almost all private TV stations. A variety of food menus, especially regional specialties, are excellent. Even menus that were previously rare or never known suddenly became

the food menu that many people seek. This is an opportunity to develop culinary tourism in Indonesia because Indonesia has a variety of foods and drinks.

Factors of Environmental Conditions, Changes in the Future, Future, Future, Future, and Future. Tourist visits at the place of a visit that come for vacation, business, or MICE (meetings, incentives, conferences, exhibitions). In making a visit the tourists need tourism facilities and infrastructures such as transportation, accommodation, restaurants or other supporting services (BADOLLAHI & ALMY, 2019). Culinary tourism is an alternative in supporting the potential of natural tourism, cultural tourism, historical tourism, and marine tourism, This culinary tour is part of the type of tourism available because it is not complete if the tourists who come don't try the culinary specialties in the area. Although culinary tourism is often considered a complementary tourism product, culinary tourism has the potential to be developed because tourists who come are usually interested in trying the specialties of the area.

Push strategy: emphasis on personal sales and complex new products. Those are things that we think are suitable for businesses with customers where potential customers can be classified into a number of specific locations. We advise companies to continually update their video promotions and quality. When we enter the international market, customers also need to oversee product maintenance (Cutrona et al., n.d.)

The main advantage and advantage of using the internet as advertising media is its very effective ability to target its target consumers. In consumers of cultural advertising through the internet media are tourists both at home and abroad with specific criteria for entrepreneurs who like the local cultures of a community. The way the internet media works is by providing all local cultural content to then be visited by anyone who likes it.

Hardiningrum (2014) in his research entitled Information System for determining culinary tourism locations in Kudus *web*-based said that this system is a system created to facilitate domestic tourists or foreign tourists to find out where the location of typical culinary locations of Kudus. The system is expected to increase domestic tourists or out-of-town tourists, time efficiency in finding culinary locations, *G/S* uses computer technology to enter, store, examine, integrate, manipulate and display information in a geographical area related to the position on the surface of the earth.

Kusumawardani (2013) Tourism Information System in Malang Regency Based on Android, this study aims to develop a tourism information system application that can provide information about the location of attractions and their supporting facilities in Malang regency. The results of this study are tourism information systems that can run on *Website* tools, Lack of applications that have been built have not been able to track the position and distance of tourists to tourist attractions.

The results of this study in the form of suggestions about suitable tourist destinations for tourists seen from the priority distance and price to tourist attractions. An application developed is not based on the *Website*. Non-human aspects are regulations, policies, technical, social, technology and other relevant

aspects, which play a role in the planning, socialization, implementation, and supervision of ASB in the field. This non-human aspect greatly influences the success or failure of manufacturing to the application of ASB in the field. (Journal et al., 2019)

For the community, a good information system on culinary tourism is very much needed, therefore the design of a culinary tourism information system application based on East Luwu Regency is needed with a good specification. In addition to displaying information about culinary places, there must also be other components including searching, categorizing places culinary to differentiate maps by using google map to find out the culinary places in detail, *user ratings* to provide ratings or appreciation for the place or food and customer registration that has been provided.

East Luwu Regency has a very complete culinary archipelago with local flavors, there are several mainstay menus from the people of East Luwu Regency including *kapurung, dange, barobbo, pacco, lawa, dengen juice, winalu botini, olo flower, dapa opudi, winalu meti, gami kolame, pewo, winalu, binalo, wokeno, and pongasi*. All these traditional foods are expected to be able to build an integrated culinary network so that every tourist who comes can enjoy traditional culinary in East Luwu.

## **RESEARCH METHOD**

In this study, two types of data are used, namely secondary data and primary data. Secondary data were obtained from the Government of East Luwu Regency, the East Luwu Regency Tourism Office, the Industry & Trade Office and the Central Bureau of Statistics. Primary data were obtained by directly interviewing local residents, traders, cultural and food entrepreneurs in East Luwu Regency and tourists in tourist destinations in East Luwu Regency. The tools in this study include Laptops, *Google Maps* for processing and analysis of *GIS, GPS Garmin 60CSX* to determine the position of coordinates at the time of field observation, Spatial Data namely administrative maps of East Luwu Regency,

The determination of the informants of this research are the owners of traditional food stalls, and related agencies who are key informants or the main informants in obtaining data and information in completing this research, besides that researchers also determine supporting informants such as culinary lovers and local tourists who aim to add data and information needed. Through in-depth qualitative interviews (*in-depth interview*), researchers were able to obtain specific data regarding the focus of research in this regard related to the Development of *GIS*-based tourism management in East Luwu Regency. The research was conducted from April-July 2019 in East Luwu Regency.

## **RESULTS AND DISCUSSION**

The kingdoms that exist in most of the islands of Kalimantan, Maluku, Timor, Madura, Bangka Belitung, still have genetic links with the kingdom of Luwu. Whether true or not, that's what was recorded in the archipelago's classic records written not by one person (Mpu) and came from various kingdoms (Purnamai, 2014: 54). *Sagu* comes from Maluku and Irian, therefore *Sagu* has a

special meaning as a traditional food ingredient for local residents, until now there are no definitive data that reveal when the *Sagu* was known. Suspected of cultivation of *Sagu* region of Southeast Asia and the Western Pacific's ancient as the use of palm Mesopotamia. But according to Ong (1977), *Sagu* has been known since 1200 based on records in Chinese oral writings, for example, Marcopolo discovered *Sagu* in Sumatra in 1298 and a *Sagu* factory in Malaka was recorded in 1416.

Bugis culture can be accessed from many instruments such as lontara, there are many previous studies related and direct explanation from the Bugis tribe as well as from cultural experts who still understand Bugis cultural values. Based on the results of the study it was found that the culture of Bugis was formed because it was respected by the Bugis ancestors as the people who placed the fundamental of Bugis society (Prabowo & Mulya, 2018). Although Luwu is rich in agricultural land, *dineegri* farming is not given much attention by coastal residents, almost all coastal areas are very suitable for rice farming, but rice fields are only near the *Bariko*, *Suli*, *Larompong* and *Cimpu* rivers along the coast. it is very rare to find a large cornfield. He ignored growing rice and corn because the country has a lot of *Sagu* plants so that the population does not need to struggle to make ends meet. Rice is used as a staple food, only for prominent people, while the people do not enjoy it except at parties or sacrifices (Mappasanda, 1992/1993: 12-13).

Luwu's original handicrafts consisted only of weaving rough sarongs, forging gold and silver, and making nets and tapping *Sagu*. The remaining branches of handicrafts such as gathering forest products, weaving baskets of fine and rough rattan, bamboo sun hats and others. Fine objects made of rattan and bamboo, such as tobacco and betel dosage and various cap/skullcaps, handbasket from *Sagu* sheath. Trading in Luwu is important. Maritime trade was carried out with Arabs, Chinese, Makassarese, Bugis who came and lived temporarily but gained tremendous wealth from forest products and coffee production that continued to increase. Every year ships come regularly from Singapore, Pontianak, Wajo, and estuaries from Cenrana River and from Makassar to take Luwu forests production plants such as *Sagu*, rattan, honey, candles, dammar and carpentry wood. The number of ships continued to increase in 1886 to twelve, including large three-masted ships. Usually, they come in March and April and stay there until July or August then return with a load of *Sagu*, rattan, coffee, candles, leather, soga and ni bong wood to Singapore. Trade with Makassar, Balan nipa, and Bone is carried out with small boats containing *Sagu*, rattan, resin, and candles. *Sagu* expenditure is estimated to be  $\pm$  15,000 piculs, rattan  $\pm$  10,000 piculs and coffee 6,000 piculs per year (Mappasanda, 1992/1993: 15-18).

From the explanation above it is clear that *Sagu* has been produced and consumed for hundreds of years ago. *Sagu* became a reserve food because rice was very difficult to find and expensive at the time. So, it is not surprising that at this time many foods from processed *Sagu* are found in East Luwu Regency such as kapurung, dange, and others. Eastern Indonesia, *Sagu* has long been used as a staple food by some residents, especially in Maluku and Irian Jaya. The most advanced technology for exploitation, cultivation, and processing of *Sagu* plants is in Malaysia. *Sagu* plant known by the name of chiral in West Java, bulung, kresula, fur, rembulung, or resula in Central Java; lapia or napia in Ambon; tumba in Gorontalo; *Pogalu* or *Tabaro* in Luwu; rambiam or rabbi in the *Aru islands*. *Sagu*

plants are included in the Order Spadicflorae, Family Palmae. The Indo Pacific region has 5 genera (genera) of Palmae whose flour substances have been utilized, namely *Metroxylon*, *Arenga*, *Corypha*, *Euqeiissona*, and *Caryota*, the well-known genera are *Metroxylon* and *Arenga*, because the content of the aces is quite high.

This archipelago is famous for its unique variety of unique foods and exotic flavors. It has become a common gal if we ask questions about an area, then the question that arises then is regarding the specialties of the region. In East Luwu Regency there are at least four special foods namely kapurung, dange, lawa fern and pocco. *Sagu* is a plant known in the archipelago and grows in the Sulawesi region, especially in Luwu. *Sagu* has a philosophical value in the form of family or kinship social values. *Sagu* is also a food reserve for food sources and other businesses. *Sagu* has been cultivated since the 7th century and increasingly spread after the 15th-century *Sagu* originated in Maluku (Melamba, 2013: 114). The existence of trade contacts between the kingdoms of Luwu and Maluku made it possible to exchange commodities and culture so that *Sagu* could be accepted in Luwu and become a staple food. *Sagu* plant which has the Latin name *Metroxylon sp* thrives in *Sagu* forests that are spread in the Maluku region. *Sagu* trees need a life span of 8-12 years before they can be harvested. Harvesting is done by way of cutting down the tree trunks and *Sagu* starch extracted from the pith of the stem. New shoots that have grown are ready to replace the harvested tree.

*Sagu* has great potential in meeting food diversification needs. This crop is also only enough to be planted once, and after 12 years will be continuously harvested, without the need to open land for new planting. *Sagu* also does not need fertilizers, pesticides and other cultivation efforts such as modern agriculture. If this can be done, there will actually be a revolution in the production of carbohydrates in a cheap and mass, because there are no plants that can produce carbohydrates as cheap and as mass as *Sagu* (Astuti, 2008). In South Sulawesi, there is quite a lot of *Sagu* in several districts. The area of Luwu Raya (Luwu, North Luwu, and East Luwu) is a district that has great potential for *Sagu* development. East Luwu Regency has a vast area of land potential, where *Sagu* is not only cultivated but grows by itself. With good cultivation, later it can make *Sagu* in South Sulawesi develop properly and optimally (Jumadi, 1989).

Interface design is a process of describing how a system *interface* is formed. *The user interfaces* application of *GIS* attractions Culinary in East Luwu regency is divided into two parts, the *user interfaces* web system, and *user interface* application *Website*, the interface or better known as the *user* interface is a medium that connects humans and computers to interact with each other. Before designing the interface of all forms on the *Website*, then to make it easier to design will be explained in advance the menu structure or site map of the system. The design of the *user* site map can be seen in the image below.

### Website Page Menu

#### 1. Kapurung

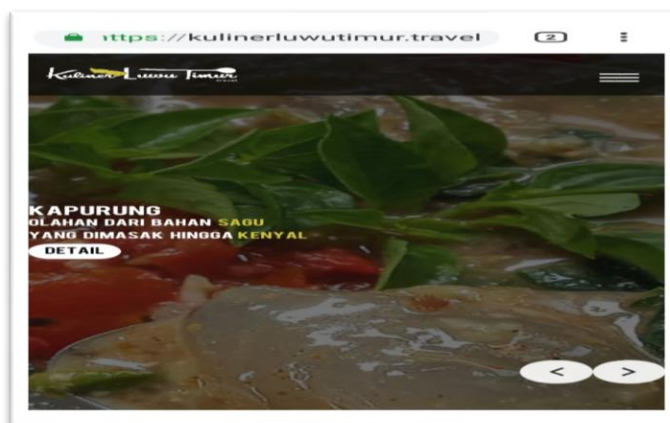


Image: kapurung display on Website

*Sagu* is not merely a staple food, but *Sagu* is also a source of human cultural information which is a collectivity (group) which states its identity (identity). East Luwu Regency is rich in natural doubts so that the concept (knowledge) of its people about the knowledge of infrastructure and food processing from *Sagu* varies with the type and form is ecologically owned knowledge. Not only food, but *Sagu* processing behavior or habits make the distinguishing features of other collectivities.

Traditions spoken verbally with a traditional lexicon of doubt have formed a culinary knowledge that has become a habit (culture) in the community and is a people's food that is taught orally from one generation to the next. Transmission of oral culture on how to process *Sagu* ingredients to become culinary variety such as traditions that are spoken orally with a lexicon of doubt traditionally has traditionally formed a culinary knowledge that becomes a habit (entrenched) in the community and is the people's food taught by tradition verbally from one generation to the next. Transmission of oral culture on how to process *Sagu* ingredients into culinary preparations such as lime, *dange*, *lanya*, *ongol-ongol*, and *cendol*.

Ways of speaking and transmission of knowledge about making food from *Sagu* are also included in the folklore study. As explained earlier that *Sagu* is a source of food for the people who have long been known by the community whose region is a producer of *Sagu*. *Sagu* is people's food because the food source is obtained from plants. Processed foods made from *Sagu* by way of processing and recipes are derived from the habits and traditions of the community which are transmitted and transmitted (transmitted) orally from generation to generation. The substance is *Sagu* is folk food because it is simple (the presentation is as is). Both can be observed that the hallmark of refined *Sagu* tradition by the people of East Luwu in particular, there are two types of process, using a wet *Sagu* and *Sagu* half wet (dry) by way doused with hot water (boiling) and burned. This seems to contain meaning and at the same time as a pointer that the ancestors used to produce recipes as well as the people who consume their food from *Sagu* forest products.

In traditional cuisine that is poured with hot water (boiling) in aci *Sagu*, it provides information that the people of East Luwu are people with a very high level of knowledge with simple technology. Because the cooking process with hot water is high knowledge because it takes into account the level of maturity into a measure. As for the half-wet corn processed (dry) by way of burning is a tradition of technological innovation is also a high level of knowledge. This illustrates that the East Luwu people are people who have a high level of intelligence in processing *Sagu*.

*Sagu* that is processed into good food is kapurung, dange, lanyu, ongol-ongol and cendol is a cultural activity that was passed down from their ancestors to the current generation. The habit of processing *Sagu* is a tradition that is spoken verbally from generation to generation to the present. this condition makes *Sagu*-producing communities (tribes) have a very high level of knowledge and utilization. Luwu community's staple food besides rice. In ancient times, kapurung or there was also called it *bugalu / pogalu* was preferred over rice (rice). Kapurung or *bugalu* is made from *Sagu* material that has been watered with hot water. The shape resembles a gel, printed in small round shapes (Anwar, 2006: 129).

To get *Sagu*, Luwu people usually do *Massambe*. *Massambe* is a process of processing *Sagu* starting from processing raw materials (*Sagu* which is still in the form of stems) into *Sagu* which is ready to be processed into various types of food (Anwar, 2006: 240). Once smooth, the *Sagu* is then doused with boiling water slowly while stirring until it is thick enough, like porridge. This method is the one who does it is not very advanced, it usually doesn't become (become very runny). Because the usual way to use both *Sagu* is put into a container and cooked on my stove or stirred stove continues to stir until the thickness is sufficient. After the *Sagu* is really thick, then removed and made dots using bamboo stems or other tools whose length is about 20 cm. the ends of the two stalks are put into *Pogalu Sagu* pulp or lime then rotated to form a circle and immediately put into a container that has been filled with cold water that has been previously boiled. This is done so that the *pogalu* spheres that have formed are not sticky again. Sometimes the water used is a vegetable sauce, fish, shrimp or meat that has been cooled (Anwar, 2006: 130).

Furthermore, after this circle has finished, only add side dishes that function as such as vegetables, fish, shrimp, meat and so on. Some vegetables that are often mixed with lime are spinach, vegetable nails, water spinach, and banana hearts. In the presentation, several regions in Luwu are also different, there are those who directly mix everything and some who divide their side dishes (such as in the Masamba area). Currently the lime making and serving model has undergone many additions. For example, the mixture that is used starts to vary, such as additional beans, etc.

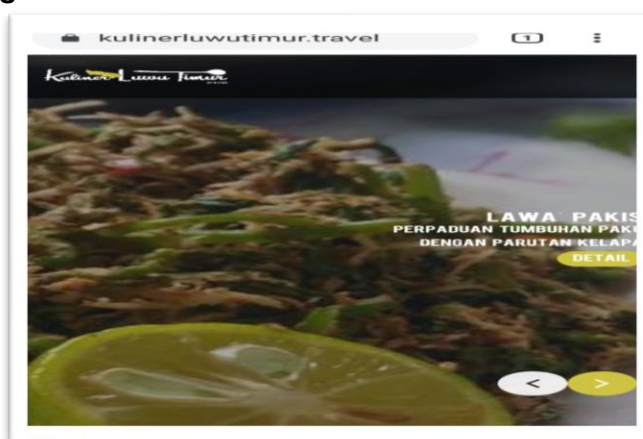
This was confirmed by the statement of one of the informants who said that;

*"Basically, the method of making lime is almost the same in all regions in South Sulawesi or in Maluku and Papua, while the difference is only in the processing of side dishes and the way they eat. If people in Masamba Kapurung make sure na separate between eating vegetables and new kapurung use hand, if the*

*same Papua Maluku eat Kapurung not use fish sauce vegetable yellow but use the new name is also different not Kapurung na say but papeda. Well, if we here in East Luwu eat lime using a new spoon, the vegetables will be mixed to taste lime because it absorbs all the seasoning. If the side dishes depend on us, what kind of sayuur we like” (Interview: Sirajuddin, June 23, 2019).*

Based on the statement above emphasizes that the process of making lime in almost every region in Indonesia is the same, only the side dishes to eat lime are different. This is considered reasonable because kapurung itself is not a native plant of Luwu but a plant originating from Maluku which was spread during the kingdom.

## 2. Lawak Pakis



**Image:** the appearance of lawak pakis es on the website

Lawak fern is a typical food most commonly found in East Luwu Regency. The main ingredients are vegetable ferns, grated coconut, Lombok seeds, kaffir lime, shrimp paste, and salt. There is also mixed with sea scallops. So, ferns are boiled half done, mixed with mussels that have already cooked. Then grated coconut is stirred and pounded with chili, salt, lime, and flavoring and added a little coconut milk (Purnamai, 2014: 35).

Lawa has a high protein value and is believed to increase stamina for men (Maya, 2013). According to an informant, he said that;

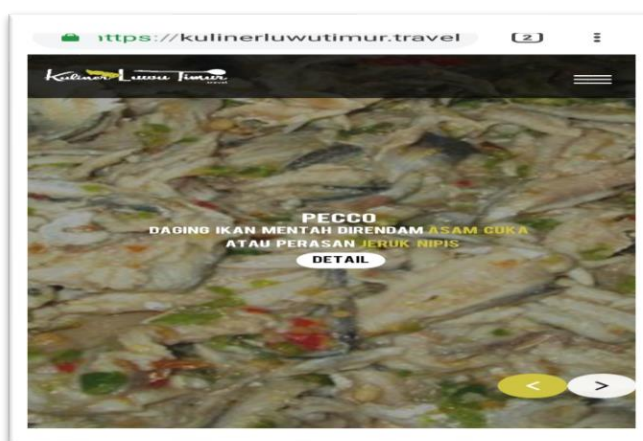
*"The fern laughter is very tasty, especially if you are eating raw with the same as grilled fish, we immediately forget that there is a lot of debt because it is delicious. Besides, the raw material used to make fern laughter is not hard to get and cheap. If you want to eat lawa, ferns, you just have to go looking for the riverbanks, so there is a lot of growth there. If there are noodles, we can grate the coconut maki already fried and then mixed. Also add spices such as Lombok, shrimp paste, fragrant lime juice, salt, and piccing so it tastes good. If I think this, there is a vitamin content in it because it is a green vegetable. Especially if there are parties or family meals like at a waterfall and on the*



*beach, certainly this place will not be left behind to be taken as a mainstay stock” (Interview: Hawasni, June 23, 2019).*

From the above statement, it is known that the fern lawa becomes a mainstay menu that is never absent brought when the East Luwu people do family recreation/picnic. Besides its good taste, this vegetable is also believed to have good vitamin content for the human body.

### 3. Pacco



**Website Image:** Pecco display on Website pages

Another special menu in East Luwu Regency is Pacco, this food is made from tembang fish or carede. The method is to separate the fish meat from bones and then crushed and shaped like a ball and mixed with vinegar, fried kelpa, chili sauce, lime juice, plus banana heart vegetables. It tastes sour, savory and spicy. How to make and eat it is similar to making sushi. This dish is usually brought to the guest of honor (Alamsyah et al, 2013: 70). Speaking of nutritional content, here are the nutritional content per 100 grams of Pacco:

Energy	Protein	Fat	PUFA	Carbohydrate	Vit C	Vit A
233gram	27gram	11gram	4gram	10 grams	18 mg	460pg <sup>1</sup>

From the nutritional content above, we can see that the PUFA (polyunsaturated *fatty acid*) content in this dish is quite high at around 4 g / 100 g. As is well known, one type of PUFA that is widely found in marine fish is omega-3. Omega 3 is one of the essential nutrients, meaning that our body cannot produce itself so it needs to be taken from outside. About the benefits, omega 3 has many benefits for the body ranging from brain development in children, anti-inflammatory, to reduce aging cognitive functions, and much more. Pacco 'is usually served with dange, processed food from *Sagu* that resembles rectangular dry bread.

<sup>1</sup> <https://www.sarihusada.co.id/Nutrisi-For-Bangsa/Activitas/Jari-Gizi/Pacco-Sashimi-A-la-Sulawesi-Selatan>

#### 4. Parede



Image: parede display on the website

Parede is a dish made from milkfish, cakalang or cob cooked with soups with turmeric, and other seasonings (Marselinus et al, 2015: 84). Parede comes from the word *Parede*, *Pa* shows the verb in the form of cooking activities, and *rede* comes from the Luwu Bugis language which means to boil. Allegedly this food has existed since time Luwu kingdom emerged in the early seventeenth century, during the reign of the kingdom of the Center Patipasaung moved to Wara (now better known by the name Palopo). Luwu kingdom is the oldest kingdom in South Sulawesi, this is based on the oldest written sources mentioning the Luwu that in a script known as the name *Sure 'Galigo*, The Luwu Kingdom is thought to have arisen around the X century AD during the reign of the Batara Guru who was also considered the first human in the Luwu (ancient Buginese) beliefs.

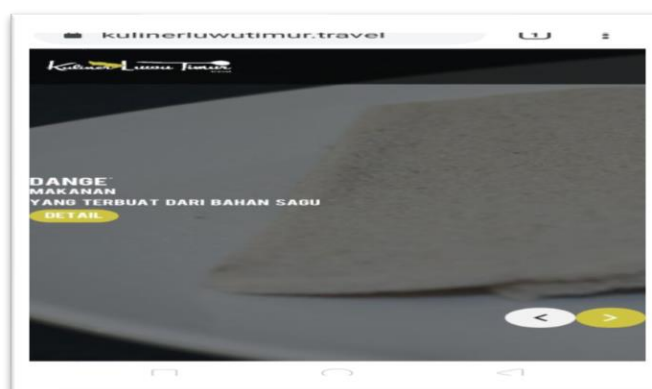
The specialty of parede is the clear, pale yellow sauce with a balanced sour-spicy taste. The sour taste has a distinctive spectrum due to the use of patikala acid and the thinness of young mangoes. Patikala acid is also "responsible" for the amazing aromatic aroma that emanates from this dish. All of our senses work to appreciate this simple dish. According to one informant's statement;

*"If the parede is like a real ji cooked fish, it's just that it has a distinctive aroma because it is put on patikala. There are also two kinds of parede, there are fish parede, there is also meat parede, so it depends on which one we like. This fish parede is often cooked at home, especially if you make lime, it certainly does not miss that parede is also made. But if the meat parede is adapted, the new program will be made because it is expensive," (interview: Hasma, June 23, 2019).*

Based on the interview above explained that the parede consists of two namely fish parede and meat parede. Parede fish can be consumed every day because the price of raw materials is cheap while the meat parede is made only when there are certain events such as parties. Parede is cooked almost the same as making cooked fish in general, except that parede is added with patikala which is an endemic fruit that grows in East Luwu Regency.

Parede is a fresh and sour fish dish, at a glance similar to Pallumara. The specialty of parede lies in the pale-yellow clear sauce with a balanced spicy and sour taste. Generally using fresh sea fish such as snapper and lamuru, although there are also people using milk fish (Winarno, 2012) Acid soup in fish is produced from pattikala / kecombrang which is a typical plant of Palopo city (Tenri, 2009).

## 5. Dange



**Figure:** Display of Dange on the website

Dange is a traditional Bugis food or cake, especially in the Luwu region. This cake is very popular in the Luwu community, so it becomes a daily meal. Usually, this traditional cake is served during family events or tudang sipulung (suave). Dange is rich in carbohydrates and is a traditional food that has been known several centuries ago. The sugar content is lower than rice is very good for diabetics (Purnamai, 2014: 33-35).

The dange in East Luwu Regency is different from the dange in Pangkep Regency. Dange in East Luwu Regency is rectangular and flat. Only about 1cm thick, white, to eat this food usually with fish sauce and sambal. Dange is made from *Sagu* flour that has been sifted and put into molds then burned, dange is better eaten while still hot because of its softer texture. when it's cold the dange texture will turn harder. Dange from *Sagu* is very rich in carbohydrates. *Sagu* is a staple food for Indonesian people in Sulawesi and other Eastern Indonesian regions such as Papua. *Sagu* carbs with levels of sugar are very low compared to rice. Therefore, food is most often consumed by diabetics as a substitute for rice which has levels of sugar that are very high. Dange is very delicious when eaten with Lawa 'and Pacco'.

**Table 1.2 Nutrients contained in processed Sagu**

Food material	Energy (cal)	Protein (gram)	Carbohydrate (gram)	Vit A (gram)	Vit B (gram)	Vit C (gram)
Kapurung	270	3,3	60.5	73.3	-	0.6
Dange	381	0.3	91.3	-	-	-
Bagea	393	1,4	75.3	93.9	0.1	-
Ongol-Ongol	340	0.6	74.8	-	-	0.4
Sinole	320	0.7	66.2	-	-	-
Cendol	297	0.6	65.9	-	-	0.3

Source: Ernawati et al., 2018: 39.

Dange feels bland and a bit hard. Generally, the way to eat this dange is by dipping it first in a bowl of fish soup, but don't dip it for too long because the dange can break. In addition to fish soup, dange is also widely eaten with vegetables. Dange is also a food that is durable and does not stale quickly so it is often used as provisions by the fishermen. According to an informant, he said that;

*"Dange in East Luwu Regency, North Luwu Regency, and Luwu Regency are different from Dange Regency in Pangkep Regency. If we are here the dangenya is thinner and made of Sagu while the dange in Pangkep Regency is made from glutinous rice. So, in terms of taste, it's obviously different because of different ingredients, but also if our dange here is thinner and white because it uses Sagu as the main ingredient. Dange is the best when it is used to eat with parede, ferns with lime water, especially if the chillies are very clear, the noodles taste very good, surely we will continue to eat if we try them "(Interview: Israfil, June 23, 2018),*

Based on the interview above it was confirmed that the types of dange found in East Luwu Regency were different from those in Pangkep Regency. This difference can be seen in the use of raw materials for Sagu and glutinous rice. This difference in raw material also certainly affects the taste. Dange in East Luwu Regency is thinner and elongated when it is served with parede, kapurung, and ferns.

### **Account Settings page**

The account settings page is a page to change the settings owned by the admin. System Testing Method: At this stage after the system or web SIG is finished, it will be tested first to see if there are still errors or need to be repaired then just apply it by uploading the file to a place (hosting) so that it can be

accessed easily by anyone, Black box testing is done by the author to show whether the application can run well. In addition, they created a new category called Transportation Services, which was requested through a technology platform; this allows countries to set conditions that not only apply to Uber but also for new and existing services (Santriono Refki, 2019). The draft test list is presented in the table below;

**Table 4: Testing Black-Box Systems on Web Systems for Admins**

No	Scenario	Test Case	Hope	Results
1	Page button Main course	The user chooses the button on the menu page main	System moved to next page	Was successful
2	Nearest Culinary	The user selects the button "5 culinary nearby"	Showing 5 culinary delights closest to the user's location are on	Was successful
3	Search Name Culinary	Enter name Culinary	Showing list culinary according to keywords	Was successful
4	Culinary list	Push the button "Culinary list"	Showing all its typical culinary list in the city of Solo	Was successful
5	Culinary location	The user chooses culinary	Showing list culinary location	Was successful
6	Culinary description	The user chooses culinary	Showing description Culinary	Was successful
7	Directions	Push the button "Direction" on Culinary	Showing instructions road to location culinary	Was successful
8	Application instructions	Push the button application instructions	Showing instructions use of the application	Was successful

## CONCLUSIONS

From the results of research conducted, the authors can draw the first conclusion, the geographic information system of culinary tourism objects based on Geographic Information Systems (GIS) in East Luwu Regency was built based on *Websites*, The web-based system used by the admin succeeded in doing data processing such as adding culinary tourism location data, changing tourism object data, viewing tourism object data and deleting tourism object data. Meanwhile, the *Website* application used by users succeeded in displaying the distribution map of culinary attractions, displaying culinary tourism categories in East Luwu Regency, displaying lists and general information of each culinary tourism object by category, and seeing the route where tourist attractions will be at seven.

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