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# INFLUENCING FACTORS OF PERCEPTION AND CONSUMPTION OF SAGO AS LOCAL STAPLE FOOD IN KENDARI CITY SOUTHEAST SULAWESI

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#### **ABSTRAK**

Sagu merupakan salah satu pangan lokal penting di Kota Kendari. Kajian dilakukan untuk mengetahui faktor yang mempengaruhi persepsi dan konsumsi pangan lokal sagu di Kota Kendari. Kajian dilakukan pada bulan Januari-Mei 2016 di Kota Kendari menggunakan metode survey terhadap 150 orang responden yang dipilih berdasarkan stratified random sampling berbasis etnis. Hasil kajian menunjukkan bahwa persepsi masyarakat terhadap pangan lokal sagu dipengaruhi secara nyata oleh jumlah anggota keluarga (0,008), etnis (0,042), lama mukim di Kota Kendari (0,002) dan tingkat kosmopolit (0,061). Sementara itu konsumsi pangan lokal sagu dipengaruhi secara nyata oleh etnis (1,628), tingkat kosmopolit (1,628) dan persepsi (4,935). Ke depan upaya peningkatan persepsi dan konsumsi pangan lokal sagu terus perlu di galakkan melalui berbagai ajang promosi dan sosialisasi.

Kata Kunci: Persepsi; Konsumsi; Pangan Local; Sagu

#### I. INTRODUCTION

The pattern of food consumption has shifted in which consumers have now taken into account aspects of healthiness, organoptic properties, and natural resources and environment when making decision about food consumption. Besides, the development of information technology and globalization, as well as changes in standardization in food production processes from upstream to downstream, also influence people's food consumption habits (Cassini et al, 2016; Cassini et all, 2015: Mark et al, 2012). Food is one of the basic human needs which is part of Human Rights (HAM) as stated in the Universal Declaration of Human Rights in 1948. Food sufficiency in terms of quantity, quality, and nutrition is a pillar for the formation of quality human resources to improve Indonesian national competitiveness at the global level (Apriani and Baliati 2011). Rice is still the main staple food of the Indonesian people, although there are several sources of local foods that are very potential to be developed including sago (Saragih, 2003)

Sago is traditionally used as one of staple foods in some countries such as Papua New Guinea, Malaysia, as well as several regions in Indonesia. Sago plants grow and develop well in these areas, and are produced locally for consumption and also for economic development (Flach and Schuling, 1989: Abidin and Asaad, 2015: Husain

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2004 in Rauf and Lestari,2009). Singhal et al. (2008) noted that sago plants can grow well in some marginal areas such as swamp land, saline land, and acid land. This plant is also very resistant to floods, fires and also strong winds. Sago plants can produce starch up to 25 - 40 t/ha/year (Bintoro, 2014: Syakir, 2014).

The development of sago as a local food is in accordance with the "local" tradition in some areas, because sago is only consumed in a number of regions so that it is specific to locality. According to Husain (2004) as cited in Rauf and Lestari (2009), local food is food produced locally (a certain region / region) for economic and consumption purposes. Local food development is related to maintaining the sustainable life of local communities (Choia and Kima. 2015).

Boros et al (2013) stated that local foods contain some characteristics such us: (1) the place of production and the end consumer separate with geographical distance; (2) based on environmental sustainability in production methods; (3) self production. They grow plant but still mantain the ethics, have strong relationship with surrounding environment; and (4) supply chain is usually short. Some researcher also classify the local food with ethnic food. Some researcher also using ethnic food paradigm to describe food form heritage and culture of one ethnic groups such us Maori food from New Zealand, Hindu Food from India (Kwon 2015; Burges, 2014).

Sago is one of local food that has developed into one of the famous food in Kendari City. The choice of people's consumption of sago is closely related to the awareness of food diversification that was promoted by Kendari City Government. In fact, in the last few years, the Government of Kendari has been actively implementing local food programs, namely SIKKATO, which is the acronym of several local staple foods, namely Sinonggi (local food from sago), Kambose (local food from corn), Kasoami and Kabuto (local food from cassava) (Abidin et al, 2015: Musadar et al, 2016).

The choice to consume local food related with social perception, which illustrates the persons' opinion about what they have seen, felt or experienced. Perception can be in the form of an impression, interpretation or assessment based on the experience gained. Perception is influenced by several things including (1) the stimulation object that will provide value, emotion, familiarity and intensity; (2) personal factors that can provide different perceptions such as the level of intelligence, interests, emotion and others; (3) The influence of groups that will give other people's responses which will give direction to one's behavior (4) Cultural background factors where a different perception of the object due to different cultural backgrounds. Perception is also influenced by customs and age (Rahmat, 2015; Yuwono, 2006).

Food consumption is inseparable from one's perception of food type, as is the case with local food consumption. Cultural factors, individual perceptions, tradition, family, formal and non-formal education, and exemplary of community leaders also influence the pattern and a person consumption type (Sumaryoto, 2009). Furthermore Borot et al. (2014) noted that there seems to be a consumer awareness at recent time to consume a lot of local food.

Sumaryanto (2009) explained that individual eating habits are influenced by cultural factors, individual perceptions, families and communities, so that the initial stage in realizing food diversification is to change perceptions. Formal education level and also nonformal educational, role models from elite groups and mass media

consumer tastes.

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promotion also influence consumption habits. Suryana (2014) mentioned that currently there is a change in food consumption tastes that are starting to leave local food and traditional food. Food consumption patterns are influenced by surrounding food resources, people's purchasing power, knowledge about food and nutrition, and

#### II. RESEARCH METHODOLOGY

The study was conducted in Kendari City in January - May 2016 using a survey method of 150 respondents spread throughout the subdistrict areas. Respondents were determined using the stratified random sampling method based on ethnic diversity in Kendari City. The sago as local staple food is known as Sinonggi, which is local food made from sago flour and served with fish and vegetables. Some data collected include perception (scoring), level of consumption (frequency of consumption in a week), age (years), education (years), number of household members (people), income (Rp / year), ethnicity (D = 1 for Tolaki ethnicity and D = 0 for ethnicities other than Tolaki, cosmopolite level (scoring)).

Measurement of perception using a Likert scale (scoring: Agree = 3; doubtful = 2; disagree = 1), with 10 statements namely: (1) Not a "villages food"; (2) Easy to obtain; (3) nutritious food; (4) Healthy food; (5) Hygienic food; (6) Consumed by all professions; (7) Consumed by all ages; (8) The price is affordable; (9) the serving is easy; (10) Can last a long time. Furthermore, cosmopolite level measurement (scoring: often = 3, sometimes = 2 and never = 1) uses 8 items, namely: (1) Newspaper Subscriptions; (2) Watching television; (3) Listen to radio broadcasts; (4) use of the internet; (5) Use of BBM / WA; (6) Use of mobile phones; (7) Participate in formal trainings conducted by the government; and (8) Participate in environment activities (social gathering, community service, recitation, etc.).

Data analysis used linear regression. Variables influencing perception and consumption level consisted of age, educational level, sex, number of household members, etnics (dummy variable 1 for Tolakineese and 0 for others), length of stay in Kendari, cosmopolite level and income (Sugiono, 2011) as follows:

$$Y1 = a + b1X1 + bnXn + e$$
  
 $Y2 = a + b1X1 + bnXn + e$ 

where:

Y1 = Perception

Y2 = Consumption level

bn = Predictor X1 = Variable e = Error factor

#### III. RESULTS

Berdasarkan hasil penelitian yakni terkait dengan pengaruh *leverage* keuangan terhadap nilai perusahaan, ditemukan hasil yakni sebagai berikut :

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#### **Characteristics of Respondents**

The survey results showed that the largest proportion of respondents' age was in the range of 36-60 years (75.3%) and the lowest was those aged >60 years (3.3%) while the remaining 21.3% were aged between 20-35 years. Therefore, most respondents are still in their productive age. Furthermore, the education level of respondents has reached >6 years, with the largest proportion of 9-12 years (graduated from junior high school and graduated from senior high school), and there also respondents who have achieved undergraduate education. The education level of the respondents will influence the decision to consume a food item. In terms of the number of family members, around 52.7% of respondents are classified as small families with the number of family members 2-4 people, and around 44% are classified as moderate families with family members 5-7 people, the rest are classified as large families (3.3%) with a number of family members >7 people. The number of family members will determine the choice and level of consumption of a food item.

The length of stay will affect interaction with the surrounding community which will ultimately affect the perception and consumption of local food in a particular area. The survey results showed that the majority of respondents (74.7%) had stayed >20 years in Kendari City. Furthermore, the ethnic composition of the largest respondents was ethnic Tolaki (24.7%). This was very reasonable, because the Tolaki ethnic was a local ethnic in Kendari city. Other ethnic groups that also inhabit the area of Kendari City are Muna, Buton, Bugis / Makassarnese (South Sulawesi) as well as Javanese and Sumatran ethnic groups, and a small percentage of Chinese (6.0%).

Respondents incomes generally range between 2-4 million per month (61.3%), followed by those who have income <2 million per month (24.7%), and those whohave income >4 million (14%). Thus the majority of respondents already have income above the Kendari City UMR (Regional Minimum Wages/RMW) in 2016 which reached Rp 2.007.000 per month. Regarding cosmopolitan levels, the survey results showed that the rates of respondent cosmopolitan were relatively high (85.55%), the moderate cosmopolitan levels about (7.49%), and about 5.96% were classified as low cosmopolitan levels. Cosmopolitan level determine openness to the world around which will affect the perception and consumption of goods and services.

## **Sago Consumption Patterns**

Consumption patterns indicate the habits of person or household to consume the food that is generally 3 times a day as a characteristic of Indonesian people's food consumption patterns. In this habit, person or household consumes both rice and non-rice food, which is more identically known as local food. The pattern of local food consumed by respondents in Kendari City is presented in Table 1.

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Table 1. The Kinds of Local Food That Consumed by Respondents in Kendari City 2016

No	The Kinds of Local Foods that are Consumed	Number of Respondents	Percentage (%)	
1	Sago	74	49	
2	Cassava	12	8	
3	Corn	1	1	
4	Sago and Cassava	21	14	
5	Sago and corn	8	5	
6	Cassava and corn	4	3	
7	Sago, cassava and corn	22	15	
8	Not consumed	8	5	
	Amount	150	100	

Sources: Primery data, 2016

Table 2 shows that local sago food was the local food most consumed by respondents, both consumed independently and consumed and integrated with other pattern of local food, such as sweet potatoes and corn. Usually this consumption pattern is not done simultaneously in one day, but it is consumed alternately with irregular patterns, depending on the availability of materials and tastes of each respondents. Even so, there were still respondents (5%) who did not consume local food including sago. Especially for local sago, the consumption patterns are quite varied, as in Table 2 which shows that some respondents have made sago as one of the staple foods that must be consumed every week.

Tabel 2. The Consumption Pattern of Sago in Kendari, 2016

No	Sago Consumption Pattern	Total	Percentage (%)
1	1 − 2 times a week	77	51
2	3 – 5 times a week	17	11
3	> 5 times a week	7	5
4	Not regularly/ once a month	24	16
5	Not consumed	25	17
Total		150	100

Source: Primary Data, 2016

Basically sago local food is the type of ethnic Tolaki local food. However, along with its development, this type of local food is not only consumed by the Tolaki ethnic community, but also by all ethnic groups inhabiting Kendari City. This is presented in Table 3.

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Table 3. Variation of Responden Ethnics that Consumed Sago in Kendari City, 2016

No	Ethnics	Number of respondents	Percentage (%)	
1.	Tolaki	37	29.6	
2.	Muna	20	16	
3.	Buton	22	17.6	
4.	Bugis, makasar, mandar, Tator (Sulsel)	20	16	
5.	Jawa, Bali, NTT. Manado, Others	18	14.4	
6.	Chinese	8	6.4	
	Jumlah	125	100	

Source: Primary Data, 2016

Table 3 shows that sinonggi is consumed by all ethnic respondents. So, sago has been accepted by all ethnic groups in Kendari City.

## **Influencing Factors of Perception for Sago Local Food**

The results of the perception analysis showed that respondents' perceptions of local sago food were relatively high (87%). The high perception is expected to encourage an increase in local sago food consumption. Community perceptions of local food are significantly influenced by the number of family members, ethnicity, length of stay and cosmopolitan level. Meanwhile other factors namely age, occupation, education and income did not show significant effect. This is presented in Table 4.

Table 4. Parameter Value of Multiple Linear Regression Analysis Factors that Affect Perception of Sago Local Food in Kendari City, 2016

No.	Variable	Regression Coefficient	Standard Error	Beta (standar z)	t-value	significanc e
1.	(Constant)	.823	.044	•	18.639	.000
2.	Age (X1)	001	.001	129	-1.183	.239
3.	Occupacy (X2)	006	.010	058	633	.528
4.	Education (X3)	.001	.002	.056	.609	.543
5	Number of household member (X4)	.008	.004	.179	2.010	.047
6.	Ethnics (X5)	.042	.015	.240	2.855	.005
7.	Length of stay(X6)	.002	.001	.317	3.233	.002
8.	Cosmopolite (X7)	.061	.034	.182	1.812	.073
9.	Income (X8)	2.973E-09	.000	.065	.700	.485
	R2			0,25		

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F-Value 4.824\*\*\*

The number of family members whose influence is significant showed that the perception of sago is getting better with the increase in the size of household. This is because with many family members, the amount of information received related to local food, especially sago, from various sources is also more diverse and will ultimately influence and further improve people's perceptions of local sago food.

Furthermore, ethnic factors show a positive value, which means that the Tolaki ethnic has a better perception of sago compared with other ethnic groups. This is very relevant because sago is one of the ethnic Tolaki local foods, even in its history for the Tolaki ethnic community the sago plant has become a very specific plant. Another factor whose influence is also significant is long settled. This is relevant because the longer of residence settled, the longer there is social interaction occurred and including local food sago which is one of the culinary in the Kendari city. It also as one of the local food for the community, especially the Tolaki ethnic, which is ethnically dominant in Southeast Sulawesi especially in the mainland region of Sulawesi. Kohsaka et al. (2016) that there is a tendency to increase local food consumption with the length of time someone has lived in a place. In this case it is likely because the longer a person lives, it will change their perception of the local food where they live.

The perception of local sago food is also influenced by cosmopolitan factors that describe the level of openness with the outside world. This is because a good cosmopolitan level will provide an information variety from various sources of information from printed, audiovisual and social media relating to local food, as well as social interactions which in turn affects people's perception of local food. This is also because the Government of Kendari City is currently promoting a food diversification program including increasing sago consumption as one of the local foods. Suryana (2014) stated that changes in food tastes at the moment are shaped and strongly influenced by the rapid development of information technology that is utilized by media promotion or advertising, including advertisements that sell food and drinks that image their products labeled as current, cool, and global trends. Furthermore, the messages conveyed by the media have a positive effect in determining the demand for certain types of food products and food selection, at least for the short term (Gibney, 2005).

#### The Influencing Factor of Sago Consumption

Sago consumption of respondents is quite diverse. Some respondents have made sago as one of the important staple foods in their daily food pattern which is marked by the frequency of consuming sago >5 times a week, However, there are also respondents who consume sago not periodically, but more inclined incidentally if there is a family event, party etc. The factors that significantly influence the level of sago consumption are presented in Table 5.

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Table 5. Parameter Value of Multiple Linear Regression Analysis Factors That Affect Sago Consumption Level in Kendari City, 2016

No.	Dependent Variables (X)	Regression Coeficient (bi)	t-value	Sig
	(constant)	-2,843	-2,731	0,007*
1	Age	0,001	0,051	$0,959^{\text{ns}}$
2	Education	-0,005	0,143	$0,887^{\text{ns}}$
3	Number of household			0,915
	members	-0.009	0,106	
4	Etnics	1,628	4,863	0,000*
5	Sex	-0,302	-1,050	$0,296^{\text{ns}}$
6	Length of stay in Kendari	0,021	1,515	0,132
7	Income	-1,452	-1,633	$0,105^{\text{ns}}$
8	Cosmopolite level	1,628	2,294	0,024*
9	Perception	4,935	3,646	0,000*
	R2		0,391	
	F-value	8,2	06****	

Notes: \* = significance in  $\alpha = 0.05$ ns = not significant in  $\alpha = 0.05$ 

Table 5 shows that ethnic factors significantly influence the level of sago consumption, which means that the level of consumption of the Tolaki ethnic sago consumption is higher than the other ethnic groups, This is very reasonable because sago is one of the Tolaki ethnic local foods, however other ethnicities also consume sago even though the consumption level is lower. Cosmopolite level also shows a significant effect. This reflects that if people more open mindset of the outside the world, they will get more new information which can influence their decision to consume. With a high level of cosmopolitanism, a person has an open pattern of social interaction that will eventually get information about local food Sinonggi which will ultimately influence it in consuming. The perception factor turned out to be one of the important factors affecting the level of consumption of sago . The analysis shows that the higher the level of perception, the higher the level ofsago consumption.

### IV. CONCLUSION

Kendari City can be an example of a region that is capable of diversifying food. Public perception of local sago food is high (87%). Sago has become one of the food types in the food pattern of the people of Kendari City and is consumed by all ethnic groups in Kendari City. Sago has been consumed along with other types of local food, namely cassava and corn. Sago local food perception in Kendari city is significantly influenced by the number of family members (0.008), ethnicity (0.042), length of residence (0.002) and cosmopolite (0.061). Meanwhile, local sago food consumption is influenced by ethnic factors (1,628), cosmopolites (1,628) and perception (4,935). In the

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future, efforts to increase the perception and consumption of sago still need to be encouraged both through advocacy and promotion to support food diversification.

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