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Analysis Of Household Food Consumption Patterns In Banjar Regency, South Kalimantan Province, Indonesia

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Abstract: *The availability of sufficient food for all residents in a region does not guarantee the avoidance of the population from food and nutrition problems at the household level. Food needs for household consumption are the main things in survival. Therefore, more attention is needed to the pattern of household food consumption so that it can meet the recommended nutritional standards. This study aims to analyse the patterns of food consumption and the factors that influence the pattern of household food consumption in Banjar Regency. The results of the analysis show that the consumption pattern of household food in Banjar Regency can be said to be still quite good. This is indicated by the level of nutritional adequacy still above 80% of the recommended nutritional adequacy rate of 2.150,00 kcal/capita/day. The average number of nutrient adequacy consumed by households in Banjar Regency is only 1.942,47 kcal/capita/day. While the factors that significantly influence the pattern of household food consumption are the variable household income, the number of household members and the dummy factor of rice for poor program (Raskin) at α=5%. The age factor of the family head has a significant effect of α=10%. While the rest, namely the education factor of the housewife, the dummy of work and the dummy of residence do not significantly influence even up to α=10%.*

Keywords: *food consumption patterns, nutritional adequacy rates, nutritional adequacy level*

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I. Introduction

Household food consumption is a food requirement by all household members that aims to strengthen food security at the household level. The pattern of food consumption is influenced by, among others: the availability of food, most of the population eating patterns and income level.

Food consumption to produce a healthy body needs to contain elements of carbohydrate, protein, fat, and vitamins/minerals in sufficient quantities and balanced. The quality of food consumption can be reflected in the balance of consuming various types of food. Therefore, the problem of malnutrition and bad nutrition is directly influenced by food consumption factors.

Insufficient food needs can be indicated on the fulfillment of energy, protein, fat and carbohydrates. Widyakarya National Food and Nutrition X (WKNPG) in 2012 recommended the fulfillment of the nutrition of the Indonesian population by 2.150,00 kcal/capita/day. If the amount consumed by the community is < 1.720,00 kcal/capita/day (< 80% AKG) then it can be classified as a society that is malnourished and this is stated to be categorized as not food resistant. On the contrary, if the amount consumed by the people is 1.720,00 kcal/capita/day (≥ 80% AKG) then it can be classified as a community that is categorized as sufficiently nutritious and in this case it is stated as a category of food security.

Related to the above, this study is intended to determine how the patterns of household food consumption exist in Banjar Regency and the factors that influence it.

II. Research Objectives and Contribution

Based on the background and formulation of the problem above, this study aims to find out:

1. The pattern of household food consumption in Banjar Regency.
2. Effect of household income factors, education of housewives, number of household members, age of household head, occupation (farmer or non-farmer), rice for poor program-*Raskin* (recipient or not recipient) and residence (village or city) on household food consumption patterns in Banjar Regency.

In addition, with this research, it is expected that:

1. Being able to provide information and insight for stakeholders such as the City Government, Bappeda, and others on the food consumption patterns of the people in Banjar Regency so that they can determine regional policies appropriately.
2. Can be used as a reference for other studies related to this study.

III. Research Methodology

Place and Time

This study uses a survey method carried out from May 2018 to April 2019 in the Banjar Regency area.

Data Types and Sources

The type of data used in this study is cross section data and time series data. Cross section data was obtained from the results of direct interviews with respondents who were guided by questionnaires. While the time series data is obtained from the relevant institutions and agencies through reports from their publications.

Sampling Method

The sampling method used in this study is the Multistage Probability Random Sampling method. This method is carried out in stages, from determining the place to the number of samples used. Banjar Regency consists of 19 sub-districts, of which there are only 6 sub-districts have villages and cities, these six sub-districts are targeted as populations. While 13 other sub-districts were not included as the target population because they did not have any city. From the 6 sub-districts, 2 sub-districts were selected using the Simple Random Sampling method, namely Martapura and East Martapura districts. The next step is to select villages and cities in selected sub-districts. Martapura Sub-District has 8 villages and 18 cities. While Martapura Timur sub-district has as many as 11 villages and 9 cities. From the total number of villages and cities in each sub-district, one village and one city are taken. So that there are two villages and cities were selected.

The number of samples used in this study is 120 households. Where the number of households sampled is adjusted to the proportion of households in each village and city, as follows:

$Kel.Jawa = \frac{1.421}{(1.421+456)} \times 60$=45,42= 45 Households

$Kel.Pekauman\ Ulu = \frac{456}{(1.421+456)} \times 60$=14,57=15 Households

$Desa\ Labuan\ Tabu = \frac{305}{(305+514)} \times 60$=22,34=22 Households

$Desa\ Tambak\ Anyar\ Ulu = \frac{514}{(305+514)} \times 60$=37,65=38 Households

Data Analysis

To answer the first objective to determine household food consumption patterns in the Banjar Regency is done with a simple tabulation analysis method, where food consumed per household in a week later converted into the magnitude of the absolute value kcal in accordance with the conversion factors issued by BPS 2014. Meanwhile, to get capita / day value then the resulting kcal value is divided by the number of household members then divided again by the number of days. Thus obtained value of household food consumption per capita per day.

After the household food consumption values obtained with units of kcal/capita/day, then to know the level of nutritional adequacy can be calculated using the following formula:

$$TKG = \frac{kkal/kapita/hari}{2.150kkal/kapita/hari} \times 100\% \quad (1)$$

description:

TKG: Tingkat Kecukupan Gizi (Nutritional Adequacy Rate)

In accordance with the results of the 2012 WNPG in Amin (2017), the level of nutritional adequacy was categorized into three groups, namely less than 80%, both 80-110% and more > 110%. So to test the research hypothesis the pattern of household food consumption in villages and cities used the statistical hypothesis, namely:

H0 : TKG < 80% AKG recommendation, malnutrition

H1 : TKG ≥ 80% AKG recommendations, enough nutrition

To test both hypotheses above, the t_{count} formula can be used as follows (Walpole, 1995):

$$t_{hit_i} = \frac{TKG_i - 80\%}{\frac{S_i}{\sqrt{n_i}}} \quad (2)$$

description:

S : standard deviation

n : the number of samples

i : village, city

Criteria for decision-making with a confidence level of 95% or α = 0.05 used for the research hypothesis of household food consumption patterns in villages and cities, namely (Gujarati, 2012):

H_0 is rejected if $t_{count} > t_{table}$

H_0 is accepted if $t_{count} \leq t_{table}$

To answer the second objective to determine the effect of household income, education of housewife, number of residents in the household, age of household head, employment (farmers or non-farmers), rice for poor program-*Raskin* (recipients or non-recipients) and place of residence (village or city) with Household food consumption patterns can be found by using the Logit model as follows (Agresti, 1996):

$$Logit\ [\pi(x)] = Ln\left[\frac{p}{1-p}\right] = g(x) = \alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5D_1+\beta_6D_2+\beta_7D_3 \quad \text{..... (3)}$$

description:

g(x) : The value of the estimated logit (TKG < 80% = 0; TKG ≥ 80% = 1)

α : Constants

β : Logistical coefficient of each factor

X_1 : Household income

X_2 : Housewife eduation

X_3 : Number of residents in the household

X_4 : Age of household head

D_1 : D*ummy* work type, farmer = 0; non-farmer = 1

D_2 : D*ummy* rice for poor program (*Raskin*), recipients = 0; non-recipients = 1

D_3 : D*ummy* place of residence, village = 0; city = 1

Then to test the overall model simultaneously, the *G* test is used. The *G* test is formulated as follows (Raharjanti and Widiarti, 2012):

$$G = -2Ln\left[\frac{L_0}{L_1}\right] \quad \text{..... (4)}$$

description:

L_0 : Likelihood without explanatory variables (the model only consists of constants)

L_1 : Likelihood with explanatory variables (the model only consists of all variable)

The hypothesis used is as follows:

$H_0 : \beta_i = \beta_1 = \ldots = \beta_p = 0$

H_1 : at least there is one $\beta_i \neq 0$, i= 1,2,…, p

The G test follows the distribution of X2 (*Chi-Square*) with a free *P* degree, so the test rule uses the statistical hypothesis as follows:

H_0 is rejected if $G_{count} \geq X^2_{k(p)}$

H_0 is accepted if $G_{count} < X^2_{k(p)}$

While for the partial test, *Wald* test is used by the following formula:

$$W_i = \frac{\beta_i}{SE_i} \quad \text{..... (5)}$$

description:

β_i : Logistic regression coefficient value for *i*-variable

SE_i : The standard error value for the *i*-variable

With the hypothesis used is as follows:

$H_0 : \beta_i = 0$

$H_1 : \beta_i \neq 0$

Wald's test follows the standard normal distribution, so the rules of decision are:

H_0 is rejected if $|W_{count}| > Z\frac{\alpha}{2}$

H_0 is accepted if $|W_{count}| \leq Z\frac{\alpha}{2}$

For the interpretation of coefficients based on coefficient odds ratio, with the following formula:

$$P_i = \frac{Odds\,1}{Odds\,2} = \frac{\frac{P_1}{1-P_1}}{\frac{P_2}{1-P_2}} \quad \text{..... (6)}$$

description:
p_1 : Probability of occurrence *Pi* (1)
p_2 : Probability of occurrence *Pi* (0)

IV. Results And Discussion

Characteristics Of Respondents

Characteristics of respondents included the age of housewives, education of housewives, number of household occupants and total household income (Table 1).

Table 1. Characteristics of Respondents

Characteristics	Household	
	Village	City
Age (year)	42	41
Household Occupants (person)	4	4
Education Level (year)	8	9
Income (IDR/day/capita)	30.945,82	36.859,02

Source : Cross Section Data Processing (2018)

Age of Housewives. The results showed that, the age of housewives is relatively diverse both in the village household from the age of 22 years to 62 years and housewives in the city from the age of 20 years to 67 years. The average age of housewives in the two regions is relatively the same, namely 42 years. This shows that the age of household mothers in general is still in productive age, so that it could be better in case of determining the pattern of food consumption.

Number of Household Occupants. The number of residents in this study is the number of people who live in a house and take part in consuming food in the house. From the results obtained it is known that the average number of residents in the village and in the city is relatively the same, which is as many as 4 people. This means that in one household it consists of a family head, mother and two children.

The Formal Education Level of the Housewife. The results of the study showed that the average level of education between the household mothers in the village and in the city tended not to have a big difference. The average education of village housewives is only one level lower than the average education of housewives in the city. The average level of education in rural households is 8 years or equivalent to grade 2 junior high school (not completing junior high school level), while housewives in the city are 9 years or equivalent to junior high school graduates.

Household Income. Based on the results of the study, the average total household income in Banjar Regency is IDR 3.827.833,33/month or IDR 35.035,79/day/capita. The household income comes from various types of jobs. If the income of the household is divided into villages and cities, then the average income in the village is IDR 3.162.837,84/month or IDR 30.945,82/day/capita. While the average income in the city is IDR 4.124.277,11/month or IDR 36.859,02/day/capita. If seen from the two revenues, the household income in the city is greater than the income in the village which reaches IDR 961.439,37/month or IDR 5.913,20/day/capita. In general, household income in the village is obtained from the agricultural sector, where income in the agricultural sector is relatively smaller. In addition, the role of housewives also determines the income of households in the village and in the city. Almost all of the housewives in the village are just ordinary housewives while more housewives in the city tend to work.

Household Food Consumption Pattern

The consumption pattern can be seen from the adequacy of nutrition obtained from energy and protein consumption. To measure the adequacy of energy and protein can be measured from food consumed, then converted into kcal according to the conversion factor issued by BPS. The results of the conversion are as described below:

Nutrition Adequacy Rate. Based on the results of the study, the average number of nutritional adequacy consumed by households in Banjar Regency was only 1.942,47 kcal/capita/day (Table 2). This shows that the nutritional adequacy rate is still below the recommended number of Indonesian nutrition adequacy, which is 2.150,00 kcal/capita/day (WKNPG, 2012). In line with this, the households in the village as well as in the city are also still equally under the recommendations of Indonesia's nutritional adequacy. The nutritional adequacy rate in rural households is 1.978,90 kcal/capita/day while the adequacy of household nutrition in the city is only 1.926,22 kcal/capita/day as in (Table 2).

The nutritional adequacy rate has a limitation that can be categorized whether someone is said to be someone who is malnourished or vice versa as someone who is sufficiently nutritious. The limit is 1.720,00 kcal/capita/day or 80% of the recommended nutritional adequacy rate. So that it can be seen from the results of the study that even though the number of nutritional adequacy of these two households is still below the recommendations for fulfilling the nutrition of the Indonesian population, it is still above the minimum level of nutrition adequacy.

Table 2. The average number of household nutrition adequacy in Banjar Regency

Household	Nutrition Adequacy Rate (kcal/capita/day)	Recommended Nutrition Adequacy Rate (kcal/capita/day)
Village	1.978,90	
City	1.926,22	2.150,00
Village + City	1.942,47	

Source : Cross Section Data Processing (2018)

The highest nutritional adequacy rates in households in cities and villages are found in food items in the grain group, in the city that is equal to 806,86 kcal/capita/day and in the villages 794,61 kcal/capita/day. The second order is the beverage ingredients group, which is equal to 197,39 kcal/capita/day in the village and 185,93 kcal/capita/day in the city. The oil and fat group in the villages and in the city ranks at third position with 181,10 kcal/capita/day and 171,64 kcal/capita/day respectively. While for the animal food group the households in the village donated calories of 330,68 kcal/capita/day and in the households in the city amounted to 361,03 kcal/capita/day. While the smallest nutritional adequacy rate for households in the village are a group of tubers is only 22,53 kcal/capita/day and for a household in the city is the seasonings that only 15,47 kcal/capita/day (Table 3).

Table 3. Average household food expenditure In Banjar Regency

Food Expenditure	Household	
	Village (kkal/capita/day)	City (kkal/capita/day)
Grain Group	806,86	794,61
Tubers	22,53	24,55
Fish	111,51	114,28
Meat	146,16	151,73
Eggs and Milk	73,01	95,02
Vegetables	70,60	40,30
Nuts	65,40	29,59
Fruits	41,58	31,58
Oil and Fat	181,10	171,64
Beverages	197,39	185,93
Seasonings	28,82	15,47
Other Consumption	91,92	112,15
Finished food	142,02	159,39
TOTAL	1.978,90	1.926,22

Source : Cross Section Data Processing (2018)

There is a tendency for higher calorie consumption levels of food grains, especially rice in rural households than in cities. This is in line with the results of the *Susenas* data released by BPS in 2018, stating that the grain group has the largest proportion of household consumption in Indonesia. Households in villages have a greater amount of grain consumption than households in the city, namely villages 936,10 kcal/capita/day while cities only 756,80 kcal/capita/day (BPS, 2018).

The above is also in accordance with the results of Jian-ping Li *et al* (2012) in China which stated that per capita rice consumption in city residents in China is lower than that of villagers because the city population consumes more cereal, besides the city population needs more water to process their food and city dwellers only need a few calories to maintain their energy balance. Conversely, calorie consumption from animal foods tends to be higher in households in cities than in villages.

In addition, at a certain income level, households will prioritize low-priced food such as food energy sources, then with increasing income there will be changes in consumption preferences, namely from food at low prices, to more expensive foods such as food sources of protein. This is in accordance with the *Law of Bennet* in Yuni Hamid (2013) which says that the ratio of starch-containing staple foods will decrease when household income increases. This shows that when household income increases, food consumption in the group

of grains will decrease, whereas the consumption of other food groups will increase, especially groups containing protein such as fish groups. So that fish consumption will increase while rice consumption decreases.

Nutritional Adequacy Rate. The level of nutritional adequacy is the percentage of the ratio of the amount of nutrition consumed by a person to the recommended nutritional adequacy, which is 2.150,00 kcal/capita/day. The level of good nutritional adequacy reaches 100% of the recommended number, while the nutritional adequacy rate is said to be lacking if it only reaches < 80% of the recommended nutritional adequacy figures.
Based on the above, the average level of adequacy of household nutrition in Banjar Regency is only 90,35% of the recommended figure. This means that the level of nutritional adequacy is still below the recommendations for fulfilling the nutrition of the Indonesian population but is still above the minimum level of nutrition adequacy (still greater than 80%).

If we look at the level of nutritional adequacy in the villages and cities of Banjar Regency, then the households in the villages reach 92,04% and the households in the city are only 89,59%. If compared with the National TKG data, it is known that the National TKG has still not reached 100%, which is only 99,91%. While for TKG each household is known to reach 99,58% in urban areas while in rural areas it exceeds 100%, which is 102,21%. This shows that the TKG of Banjar Regency is not much different from TKG Nasional, which are both still under 100%. However, the average level of nutritional adequacy in Banjar Regency and National is still more than 80% of the recommended nutritional adequacy rate, so that when viewed from the average nutritional adequacy level, it is still classified as a community that is categorized as sufficiently nutritional or prosperous..

Based on the results of hypothesis testing, obtained a value of t_{count} of 2,35 while t_{table} with α=5% of 2,04 or greater, so the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. In other words, the level of nutritional adequacy (TKG) in rural households is significant more than 80% of the recommended nutritional adequacy rate (AKG). This means that the households in the village are included in the household group with sufficient nutrition. Even though they live in villages, they tend to have greater calorie intake because more work is needed in the village.

The same thing happens in urban areas based on the results of hypothesis testing, the value of t_{count} is 4,06 while t_{table} is 1,99 at α=5% or greater, so the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. In other words, the level of nutrition adequacy (TKG) of households in the city is significant more than 80% of the recommended nutritional adequacy rate (AKG), which means that households in the city are also included in the group of households with sufficient nutrition. This is consistent with the description that households in the city are prosperous communities because they can easily obtain various types of food.

Average Food Expenditures (IDR*).* After household food consumption is converted into rupiah. The results of the study show that the average household food expenditure in Banjar Regency is IDR 21.235,68/day/capita. If seen from the average expenditure on household food consumption in the village tends to be greater than the household in the city. Household food expenditure in the village reaches IDR 22.122,25/day/capita while the household in the city is only IDR 20.840,47/day/capita, there is a difference between the two, which is IDR 1.281,78/day/capita (Table 4).

Table 4. The average household food expenditure In Banjar Regency

Food Expenditure	Household	
	Village (IDR/day/capita)	City (IDR/day/capita)
Grain Groups	2.300,51	2.403,32
Tubers	118,92	129,50
Fishes	3.820,91	3.921,33
Meat	1.638,16	1.666,65
Eggs and Milk	1.252,59	1.784,49
Vegetables	3.020,85	2.032,23
Nuts	529,89	446,49
Fruits	1.078,19	631,28
Oil and Fat	630,79	654,71
Beverages	1.023,21	1.164,73
Seasonings	542,62	599,63
Other consumption	587,68	735,52
Finished Food	2.145,56	2.650,64
Tobacco	3.432,37	2.019,97
TOTAL	22.122,25	20.840,47

Source : Cross Section Data Processing (2018)

When viewed from the expenditure of each food group in villages and cities, it is seen that spending on vegetables, beans, fruits and tobacco is greater in the villages, while expenditure on other food groups is lower than in cities. However, from the four food groups, the tobacco expenditure group had the biggest difference compared to the others. So this is what causes a large difference between household food expenditure in villages and cities. This shows that indeed the people in the village tend to consume more tobacco than the people in the city.

The largest food expenditure in the household in the village is to buy fish at IDR 3.820,91/day/capita or 17,27% of the total food consumption expenditure. For the second and third largest food expenditure, the expenditure for tobacco and vegetables respectively was IDR 3.432,37/day/capita (15.52%) and IDR 3.020,85/day/capita (13.66%) (Table 4).

No different from rural households, the largest food consumption expenditure in the city is also occupied by expenditure on fish, which is IDR 3.921,33/day/capita or 18,82%, while for the second and third places is expenditure on food at IDR 2.650,64/day/capita (12,72%) and grains IDR 2.403,32/day/capita (11,53%) (Table 4).

Factors that Influenced the Household Food Consumption Pattern in Banjar Regency

From the results of calculations using the SPSS 18 application, the equation of the pattern of household food consumption in Banjar Regency is obtained as follows:

$$Logit\ [P] = Ln\left[\frac{P}{1-P}\right] = 2{,}499+0{,}0000001X_1{*}+0{,}071X_2-2{,}520X_3{*}+0{,}077X_4{**}-0{,}280D_1-2{,}029D_2{*}+1{,}392D_3$$

*Description: * = significant up to α 5%*
*** = significant up to α 10%*

The value of Y or the dependent factor value in the logit model above shows that households have better food consumption patterns and poor food consumption patterns, where 0=food consumption patterns are not good and 1= food consumption patterns are better. This is based on the nutritional adequacy rate and the level of nutrition that is consumed by the household. Households whose consumption patterns are not good, households with a smaller nutritional adequacy rate of 1.720,00 kcal/capita/day or nutritional adequacy level below 80%. While households whose consumption patterns are better are households with a greater nutritional adequacy rate equal to 1.720,00 kcal/capita/day or the level of nutritional adequacy above 80%.

Goodness Test Model. Before the above equation model is interpreted for the coefficients used, then the model is first tested the goodness of the model to find out whether the model used is fit with empirical data. The results of the analysis with the *Ceofificients Omnibus Tests* of the *G* test were 102,703 and the *P* value was smaller than α=5% (0,050) which is 0,000 (Table 5). This shows that independent factors are significantly influential together.

Furthermore, to determine the ability of dependent factors that are able to be explained by independent factors, the values of *Cox & Snell R Square and Nagelkerke R Square* are used. Based on the test results show that the *Nagelkerke R* Square value is 0,786 (Table 5). This shows that the household food consumption pattern of 78,60% is determined by independent variables on the function, while the remaining 21,40% is determined by factors outside the model or which are not included in the function model.

Tabel 5. The results of the logit analysis of food consumption patterns household in Banjar Regency

Predictor	*Coef*	*SE Coef*	*Z*	*P*	*Oods Ratio*
Constant	2,499	3,658	0,467	0,494	
Income of household (IDR)	0,0000001	0,000	13,308	0,000*	1,000
Education of housewife (year)	0,071	0,162	0,192	0,662	1,073
Household occupants (person)	-2,520	0,740	11,599	0,001*	0,080
Age of household head (year)	0,077	0,044	3,133	0,077**	1,080
Jobs type	-0,280	0,976	0,082	0,774	0,756
Raskin recipients	-2,029	1,020	3,954	0,047*	0,131
Residential location	1,392	0,863	2,603	0,107	4,021
Concurrent Test Criteria (Model): G=102,703, DF=7, P-*Value*=0,000 *Nagelkerke R Square*=0,786					

Source: Cross section data processing with the SPSS application (2018)

Partial Test. Based on the partial test (*Wald* test) shows that the factors that significantly influence the pattern of household food consumption in Kabupaten Banjar are household income factor (X_1), number of household occupants (X_3) and rice for poor program-*Raskin* (recipient or non-recipient) (D_2) up to α=5%. While the age

factor of the family head (X_4) has a significant effect up to α=10% (Table 5). While the rest, namely the education factor of housewives (X_2), employment (farmer or non-farmer) (D_1) and place of residence (village or city) (D_3) does not significantly influence up to α=10%. Details about each factor can be described as follows:

The household income factor has a positive coefficient value with an odds ratio of 1,000. Judging from the *P* value is smaller than α=5% (0,050) which is 0,000, so the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. The combination of positive coefficient direction signs and odds ratios means that if the household income increases by one rupiah unit then the chances of a better household food consumption pattern increase or greater 1,000 times the original. With greater income, the household has the ability to obtain sufficient food for energy and nutrition needs. The higher the level of income, the number and type of food tends to improve. In addition, income also affects a person's purchasing power. High-income households will increase the quantity and can choose a better quality of food, so that the pattern of food consumption in the household will be better.

The education factor of housewives has a positive but not significant coefficient value. Judging from the *P* value greater than α=5% (0,050) which is 0,662, so the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. This shows that in order for the pattern of household food consumption to be better, there is no need for the level of education of the housewives. This also gives an understanding that efforts are being made so that the pattern of food consumption of a household is better not from the level of education of the household. A housewife who has a higher education does not necessarily have extensive experience in managing, processing and calculating how many calories each family member needs. This is because even though there is learning about food management in formal education but housewives do not implement the information they can in their daily behaviour and lifestyles. So how high the level of formal education carried out by housewives does not guarantee that their household food consumption patterns can be better.

The number of household occupants has a negative coefficient value with an *odds ratio* of 0,080. Judging from the *P* value is smaller than α=5% (0,050) which is 0,001, so the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. The combination of negative direction signs and odds ratios means that if the household has a greater number of household occupants then the opportunity for the household food consumption pattern to be better decreases or is smaller than 0,080 times the household that has the number of residents of one person below. The number of household residents is related to household income which will ultimately affect the consumption patterns of the household. This means that the more the number of residents in the household, the more income used for food needs, if the household's income remains (does not increase with the increase in the number of household occupants), the smaller the amount of food consumption for each household due to limited food purchased. So that every increase in the number of residents of a household will cause the food consumption pattern tend to be bad.

The age factor of the family head has a positive coefficient value with an odds ratio of 1,080. Judging from the *P* value of the age factor of the family head is not significant at α=5% (0,050) but significant to α=10% (0,100) which is 0,077, so the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. The combination of positive direction coefficient values and *odds ratios* means that households that have an older family head age, the opportunity for a better household food consumption pattern increases or is greater than 1,080 times that of a household that has a family head age of one year below. At a certain age, someone's productivity experiences an increase, but as we get older, a person's productivity will decrease, especially elderly. In this study the age of the family head is in the productive age range. Where when the age of the family head increases, the productivity increases in work also. Therefore the age of the head of the family can influence the pattern of household food consumption, the more the age of the head of the family increases, the more productive and more income will be generated and it makes the food consumption patterns of the household will be getting better.

Other factors that may influence not significantly affect the pattern of food consumption of a household are the *dummy* factors of work. This factor is used to distinguish between households whose main job is farmers and non-farmers, where farmers=0 and non-farmers=1. Job type factors have negative coefficient values but are not significant. Judging from the *P* value greater than α=5% (0,050) which is 0,774, so the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. This shows that the pattern of household food consumption does not depend on the type of main work of the household, whether as a farmer or non-farmer. The main type of work of the head of the household is indeed able to influence the level of income of the family which also indirectly affects the consumption of food. But if in the family the income earned is felt to be unable to meet the needs of the household, then with all their efforts they will do side work to increase income. Neither the household whose main occupation of the head of the family as a farmer or non-farmer who feels his income is low will still try to find additional income. In this case, the type of work of the head of the family is not able to determine the pattern of household food consumption.

Rice for Poor Program (*Raskin*) *dummy* factors were used to differentiate between households that received *Raskin* and those who did not receive the *Raskin*, where 0=*Raskin* recipients and 1=not *Raskin*

recipients. This factor has a negative coefficient value with an odds ratio of 0,131. Judging from the *P* value is smaller than α=5% (0,050) which is 0,047, so the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. The combination of direction and negative comparison value and odds ratio means that households as recipients of the *Raskin* household consumption patterns are not better or smaller than 0,131 times than households that are not *Raskin* recipients. The presence of a household *Raskin* program has the excess income needed to buy rice at a more expensive price, so the presence of *Raskin* excess income can be used to buy more or better quality foodstuffs. Because of the importance of *Raskin* assistance, this means that against the pattern of household consumption, households that receive *Raskin* will have better consumption patterns of their households.

The last *dummy* factor is the location of residence used to differentiate between households in villages and households in the city, where 0=village and 1=city. Residence factor has a positive coefficient but not significant. Judging from the *P* value greater than α=5% (0,050) which is 0,107, so the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. This shows that the *dummy* factor of residence does not significantly influence the food consumption pattern of a household. At the household level, the diversity of food consumption is closely related to demographic characteristics, social aspects, economic and natural resource potential. The existence of these differences coupled with constraints in food distribution between regions causes the pattern of food consumption between regions to vary from one region to another, for example between rural and urban areas. But the regions in Banjar Regency, both rural and urban areas, now have not much difference in social, economic and even distribution of food. Every household in the village and in the city can easily obtain various types of food needed. The food distribution route has now reached remote rural areas. Thus, both the household in the village and in the city does not affect the household food consumption pattern.

V. Conclusions And Recommendations

Conclusions

Based on the results and discussion in this study, conclusions are:

1. The consumption pattern of household food in the village and in the city can be said to be still quite good. This is indicated by the level of nutritional adequacy of each above 80% of the recommended nutritional adequacy rate of 2.150,00 kcal/capita/day.
2. Factors that significantly influence the pattern of household food consumption are household income variable, household occupant number and raskin dummy factor at α=5%. While the age factor of the family head has a significant effect α=10%. While the rest, namely the education factor of the housewife, the dummy of work and the dummy of residence do not significantly influence even up to α=10%.

Recommendations

Based on the results and discussion and conclusions in this study, it can be suggested:

1. To increase the pattern of household food consumption both in the village and in the city in order to achieve the recommended nutritional adequacy rate of 2.150,00 kcal/capita/day in Banjar Regency.
2. In order to achieve the recommended nutritional adequacy rate, it can be done by increasing income through improving the quality of human resources to be able to increase skills in work, raising awareness of households in the village and in the city about the importance of family planning to control the number of household members expansion of *Raskin* (rice for poor program) assistance to the community so that the presence of *Raskin* is able to improve food consumption patterns to become better.

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