THE EFFECT OF INCOME, SAVINGS, EDUCATION LEVEL, NUMBER OF HOUSEHOLD MEMBERS, AND HOUSEHOLD CRITERIA (SMOKER AND NON-SMOKER) ON HOUSEHOLD CONSUMPTION EXPENDITURE IN SUNGAILIAT DISTRICT

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Abstract

The purpose of this research is to analyse and determine the effect of income, savings, education level, number of household members, and household criteria (smoker and non smoker) on household consumption expenditure in Sungailiat District. This study relied on primary data from 100 household in Sungailiat District. Data analysis was performed with multiple linier regression. The results demonstrated and partially income, number of household member, and household criteria (smoker and non-smoker) had a positive and significant effect. Savings showed a negative and significant effect. Meanwhile, education level provided a positive and insignificant effect. Simultaneously income, savings, eduation level, number of household member, and household criteria (smoker and non-smoker) affected household consumption expenditure in Sungailiat District. On average, Sungailiat District residents use nearly all of their earnings on consumption. Most consumption expenditures are made to meet food needs. Household with smoker spend more money on consumption than non-smokers.

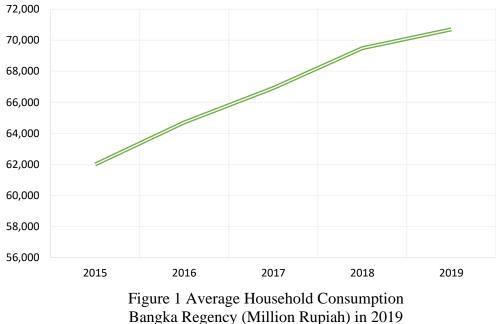
Keywords: household consumption, income, savings, education, number of household members, household criteria (smokers and non-smokers)

1. INTRODUCTION

Economic factors that can affect the level of household consumption are household income, consumption of durable goods, future living conditions, household wealth, interest rates, and reduced inequality in income distribution from government policies. Demographic factors that can affect consumption expenditure include population size and population consumption. While non-economic factors that can affect the level of consumption are social and cultural factors such as diet, education level, principles, morals, and norms that adapt to the surrounding environmental conditions (Rahardja and Manurung, 2008).

Currently, urban communities are increasingly showing a consumptive attitude by prioritizing wants over needs. If someone applies a consumptive pattern in meeting their needs, then no matter how much income someone gets, they will not feel enough (Wulan, 2018). Based on data from the Central Statistics Agency (BPS) of Bangka Regency, the average consumption expenditure of the people of Bangka Regency every year always increases. The development of the average household consumption in Bangka Regency can be seen in Figure 1.

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Source: Bangka Regency BPS, 2021

From Figure 1, it can be seen that the average household consumption expenditure in Bangka Regency from 2015 to 2019 has increased every year. The tendency for an increase in household consumption expenditures every year can be caused by the high growth and population in Bangka Regency, especially in Sungailiat District which has a larger population than other sub-districts in Bangka Regency (Statistics Bangka Regency, 2019).

The large number of residents can create a diversity of perceptions in determining spending for their respective household consumption. For some households, food consumption is important and must be satisfied in large quantities. While for others, they think that there are other consumptions such as health care that must be fulfilled so that food consumption can be done in small quantities (Wulan, 2018). This difference also occurs in Sungailiat District. Moreover, Sungailiat District is the sub-district with the largest population among other sub-districts in Bangka Regency.

The number of households in Sungailiat District is 29,004 households. There is an imbalance in the distribution of the population between sub-districts in Bangka Regency, as well as villages and villages in Sungailiat District. The highest population distribution of Bangka Regency is in Sungailiat District, which is 30.46 percent. Sungailiat District is the capital of Bangka Regency. Meanwhile, the highest population in Sungailiat District is in Sungailiat Village with 6,701 households.

Another factor that can affect household consumption expenditure is the smoking habit of members in a household. In a study conducted by Ginting (2020), the expenditure made for the consumption of cigarettes by a family member can lead to deviations in household consumption expenditures either directly (crowding-out) or indirectly.

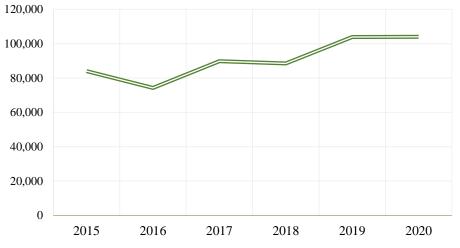


Figure 2 Average Per capita Cigarette Expenditure Bangka Regency Source: Bangka Regency BPS, 2021

As shown in Figure 2, the average monthly per capita expenditure on cigarettes in Bangka Regency tends to increase every year. In 2015 household expenditure on cigarettes amounted to 84,014 Rupiah. The year 2016 decreased from 2015 which was 74,238 Rupiah. In 2017 again experienced an increase from the previous year of 89,783 Rupiah. In 2018, the average monthly per capita cigarette expenditure again decreased by 88,499 Rupiah. In 2019 there was a significant increase with a value of 103,910 Rupiah and in 2020 it increased by 104,013 Rupiah.

2. LITERATURE STUDY

Consumption Theory

According to Mankiw (2014), consumption carried out by a household consists of three, namely non-durable goods such as food, beverages, soap, toothpaste. Second, durable goods, such as vehicles, cell phones, and household appliances. Third, service consumption is the consumption of intangible goods by households in meeting secondary needs including education, health services, and others.

John Maynard Keynes ConsumptionTheory

In his theory, Keynes states that current consumption is influenced by disposable income. Even if there is no income or income equals zero, consumption must still be met. An increase in disposable income will lead to an increase in consumption even though the increase is smaller than the disposable income. The Keynes consumption function is often written:

Information:

- C : consumption value
- C₀ : autonomous consumption
- B : marginal propensity to consume (MPC)

bY_d : disposable income

Keynes' theory of consumption is based on three assumptions. These allegations include the propensity to consume (MPC = marginal propensity to consume), the average

consumption (APC = Average propensity to Consume), and income is the most important determinant of consumption (Sukirno, 2010).

Irving Fisher Consumption Theory

Fisher's model removes the obstacles experienced by consumers, the tastes of consumers, and how the obstacles that occur together make decisions on saving and consumption. This theory contains individual decisions in carrying out consumption activities in accordance with current conditions and future estimates (Mankiw, 2014).

James Duesenberry Consumption Theory

James Duesenberry issued a consumption theory of the relative income hypothesis which aims to restore the relationship between consumption and income that is balanced with unbalanced to obtain an explanation of the causes of the emergence of different consumption patterns in each individual. According to Duesenberry, individual consumption expenditures are not measured based on current income, but depend on the achievement of the highest income by the individual (Prabowo, 2017).

Income Theory

Based on the phenomenon that often occurs, the addition of income does not only affect the amount of goods consumed, but also can improve the quality of the goods consumed. For example, when income increases, someone will buy rice in large quantities and of better quality than before (Soekartawi, 2002).

Saving theory

The desire to ensure consumption in the future makes a person have the desire to save. Circumstances and conditions in the future can not be predicted. To deal with this uncertainty, savings can be used as reserves to ensure a good life in the future (Prabowo, 2017).

Education Level Theory

Heads of families who have a high level of education will make household consumption expenditures even greater because apart from being used for large consumption, households with high incomes will use most of their income to be saved or invested. On the other hand, poor families are identical to the level of education and low income of the head of the household will cause almost all of the income to be used for consumption in small amounts (Ananda, 2015).

Number of Household Members Theory

The number of household members has an effect on household consumption. The more members of the household, the need for consumption, especially food consumption, will also be large according to the number of family members. (Agustin, 2012).

Household Criteria (Smoker and Non Smoker) Theory

In the short term, smoking can reduce living standards by diverting household income sources for basic needs. Cigarette spending can reduce nutritional adequacy status for households with low income levels due to reduced allocation of household consumption expenditures for staple foods and health care (Sari, 2017).

3. RESEARCH METHODOLOGY

Data

The data collection methods in this study were: distributing questionnaires, heritage studies, and supporting secondary data from related agencies such as the Central Statistics Agency for the Province of Bangka Belitung Islands and Bangka Regency and the Regional Development Planning Agency (Sugiyono, 2016).

Model

The analytical tool used in this study is the method of multiple linear regression analysis. Multiple linear regression analysis is useful to see the effect of income, savings, education level, number of household members, and household criteria on household expenses in Sungailiat District. The multiple linear regression equation model of this study is:

<i>EHC</i> _i =	$= \alpha + b_1 INC_i - b_2 SAV_i + b_3 EDU_i + b_4 FAM_i$
	$+ b_5 HCR_i + \varepsilon_i \dots 2$
Informa	ation :
EHC_{I}	: Household Expenditure
α	: Regression Constanta
INC _i	: Income
SAV_i	: Saving
EDU_i	: Education Level
FAM _i	: Number of Family Members
HCR _i	: Household Criteria (Smoker and Non Smoker)
ε_i	: Error term
i	: Cross section

Research Hypothesis

The hypothesis is a temporary estimate of the formulation of a research problem. Pre-existing theories are used as the basis for guessing. Based on the theory that has been described, the hypothesis is written as follows:

- 1. Income has a positive and significant effect on household consumption expenditure in Sungailiat District.
- 2. Savings have a negative and significant effect on household consumption expenditures in Sungailiat District.
- 3. Education level has a positive and significant effect on household consumption expenditure in Sungailiat District.
- 4. The number of family members has a positive and significant effect on household consumption expenditure in Sungailiat District.
- 5. Household criteria (smokers and non-smokers) have a positive and significant effect on household consumption expenditure in Sungailiat District.
- 6. Income, savings, education level, number of household members, and household criteria (smokers and non-smokers) have a positive and significant effect on household consumption expenditure in Sungailiat District.

4. RESULT AND DISCUSSION

Multiple Linear Regression Analysis

This study uses multiple linear regression analysis which is useful to determine the effect of each independent variable consisting of education, savings, education level, number of household members, and household criteria (smokers and non-smokers) on the dependent variable which is consumption expenditure. households in Sungailiat District.

Coefficients	Sig.
-	0.000
202186.784	
0.609	0.000
-0.173	0.606
17385.956	0.186
210723.826	0.000
116907.601	0.040
-	202186.784 0.609 -0.173 17385.956 210723.826

Table 1. Multiple Linear	r Regression	Test Results
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Source: Processed by Researchers, 2021

Based on Table 4.1, the results of multiple linear regression testing are as follows:

 $EHC_i = -202186,784 + 0,609 INC_i - 0,173 SAV_i + 17385,956 EDU_i + 210723,826 FAM_i + 17385,956 EDU_i + 210723,826 EDU_i + 21$ 11690,601 HCR_i

The equation model obtained from the regression results shows that the constant value is -202186.784 which indicates that if all variables in the research model are equal to zero, then household consumption expenditure in Sungailiat District is -202.186,784 rupiah. If income increases by 1,000 rupiah, it will increase household consumption expenditure by 609 rupiah, provided that other variables are constant. The regression coefficient value for the saving variable is -0.173 percent, indicating that savings will decrease by 173 rupiah when consumption expenditure increases by 1,000 rupiah. The regression coefficient value for the education level variable is 17385.956 which indicates that the higher the level of formal education completed by the head of the household with 1 level of education, the household consumption expenditure in Sungailiat District will increase by 17,385,956 rupiah.

The value of the regression coefficient for the variable number of household members is 210723.826 indicating that if the number of household members increases by 1 person, it will increase household consumption expenditure in Sungailiat District by 210,723,826 rupiah. The value of household criteria (smokers and non-smokers) has a positive and significant effect. The regression coefficient value for household criteria variables (smokers and non-smokers) is 116907,601. This indicates that the household criteria (smokers and non-smokers) will increase their household consumption expenditure by 116,907,601 rupiah if the household has a smoking habit.

Hypothesis Testing

Partial Significance Test (t Test)

The results of the t test can be seen in Table 4.2.

Table 2. Partial Significance Test Results (t-test)

Model	Т	Sig.	
(Constant)	-1.562	0.000	
Pendapatan	15.026	0.000	
Tabungan	-0.517	0.606	
Tingkat Pendidikan	1.333	0.186	
Jumlah Anggota Rumah Tangga	6.709	0.000	
Kriteria Rumah Tangga	2 079	0.040	
(Perokok dan Non Perokok)	2.078		
Source: Processed by Researchers, 2021			

Source: Processed by Researchers, 2021

Based on Table 4.2, it can be seen that the results of the t-test conducted regarding the effect of the independent variables on the dependent variable showed that the income variable, number of household members, and household criteria (smokers and nonsmokers) had a positive and significant effect on household consumption expenditure in Sungailiat District. . Savings have a negative and insignificant effect on household consumption expenditures in Sungailiat District. The level of education has a positive and insignificant effect on household consumption expenditure in Sungailiat District.

Simultaneous Significance Test (F Test)

To find out whether the independent variables together have an influence on the dependent variables then used Test F

Model	Sum of	Df	Mean	\mathbf{F}	Sig.
	Square		Square		_
Regression	7.244	5	1.449	215.491	0.000
Residual	6.320	94	6.723		
Total	7.876	99			

 Table 3. Simultaneous Significance Test Results (Statistical Test F)

Source: Processed by Researchers, 2021

Based on Table 4.3, the results of the F test show that income, savings, education level, number of household members, and household criteria (smokers and non-smokers) have a positive and significant effect on household consumption expenditure in Sungailiat District with probability values of income, savings, education level, number of household members, and household criteria (smokers and non-smokers) of 0.000 < 0.10.

Coefficient of Determination Test (R^2)

The test results The coefficient of determination (R^2) is shown in table 4.8:

Table 4. Coefficient of Determination Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.959	0.920	0.915	259294.815

Source: Processed by Researchers, 2021

Based on Table 4.4, the coefficient of determination of income, savings, education level, number of household members, and household criteria (smokers and non-smokers) is able to explain the variable household consumption expenditure in Sungailiat District by 92 percent and the remaining 8 percent is influenced by other factors not referred to in this study such as interest rates, use of credit, and working hours.

The Influence of Income on Household Consumption Expenditure in Sungailiat **District.**

The results of this study are in line with research conducted by Ananda, 2015, Masykur et al, 2015 and Adiana et al 2012 which state that income has a positive and significant effect on household consumption. Based on the results of interviews, households with low incomes will buy foodstuffs with lower prices and quality, such as consuming rice with cheaper brands. Households with low incomes will try to get their

children to attend public schools on the grounds that by attending public schools, households pay lower tuition fees than private schools. Low-income households also spend less on health by choosing BPJS class 3 with lower costs.

The Influence of Savings on Household Consumption Expenditures in Sungailiat District

The results showed that savings had a negative and insignificant effect on household consumption expenditures. This is in line with research conducted by Kartikawati (2017) and Vera Paulin Kay (2013) which states that saving has a negative effect on household consumption expenditure. The household's decision to save will have a negative effect on household consumption because any increase in consumption will reduce the amount of household saving. Households will save more and poor people will save less because in poor households consumption expenditure will be more than the income earned. Meanwhile, for wealthy households, savings are obtained from household income that is not consumed. Therefore, the greater the consumption expenditure, the smaller the savings. This can happen because it is influenced by the education level of the head of the household who on average has a high school diploma. The high level of education of the head of household makes households have the initiative to think about their future.

The Influence of the Education Level of the Head of the Household on Household Consumption Expenditures in Sungailiat District

The results of this study are in line with research conducted by Masykur et al (2015) which states that the level of education has no significant effect on the consumption of poor households in West Aceh Regency. Low and high income households in Sungailiat Sub-district consume not too much different. Households with higher education in Sungailiat District are dominated by household heads who work in the formal sector such as civil servants and tin employees. Meanwhile, households with low education are dominated by household heads who work in the informal sector such as daily laborers. However, there are still many heads of households in Sungailiat District who are highly educated but have low incomes due to the narrow employment opportunities and large population in Sungailiat District and Bangka District. This increasing need is not only limited to food needs but also includes the need for information, higher social status in society and the need for recognition from others.

The Effect of Number of Household Members on Household Consumption Expenditure in Sungailiat District

The results of the study are in line with research conducted by Prabowo (2017) which states that the number of families has a positive and significant effect on household consumption. This can happen because every member of the household needs food intake every day. The more household members, the higher consumption expenditure, especially in terms of food and basic needs. This also applies to the opposite, the fewer the number of household members, the lower the expenditure on food consumption.

In accordance with the facts that actually occur in Sungailiat District, food consumption is the consumption that has the greatest influence on household consumption expenditure. The needs that are mostly issued by households according to the number of members in each household are food needs.

The Influence of Household Criteria (Smoker and Non-Smoker) on Household Consumption Expenditure in Sungailiat District

Household criteria (smokers and non-smokers) have a positive and significant impact on household consumption expenditures in Sungailiat District. The results showed that the average household in Sungailiat District had low and medium income, which ranged from less than Rp. 1,500,000 to Rp. 2,500,000 and most of the heads of households worked as daily labourers. This low and moderate income level indicates that there are still many households in Sungailiat District which are classified as poor households. In addition, there are more households with smoking criteria than households with nonsmoking criteria. The results of the study are in line with research conducted by Ginting el al (2020) and Wulandari (2019) stating that cigarette spending has a positive and significant effect on household consumption.

Comparison of Smoker Household Consumption Expenditure and Non-Smoker Household Consumption Expenditure

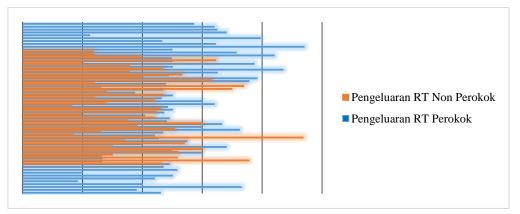


Figure 4.1 Comparison of Smoker Household Consumption Expenditure and Non-Smoker Household Consumption Expenditure Source: Processed by Researchers, 2021

Households that have smoking household members have lower consumption expenditures than non-smoking households. Household smokers will reduce consumption expenditures for food needs or other needs so that they can consume cigarettes even in small quantities. Meanwhile, high-income households will not reduce spending on food needs and other needs, but rich households will reduce their level of savings to buy cigarettes. This causes the expenditure of rich households with smoking criteria to increase and be higher than non-smoking households.

Household smokers with low incomes consume an average of A1 cigarettes, kretek salt warehouse, lucky strike bold 12, Djarum super MLD, lintingan, and change brands with an average consumption frequency of 5-7 packs per week. Meanwhile, household smokers with high incomes consume Malboro, Dunhill, Dji Sam Soe Magnum, Class Mild cigarettes on average with an average consumption frequency of 3-5 packs per week. The habit of consuming cigarettes can create dependence because it is addictive and causes household members to continue to smoke even though their income has decreased.

Household smokers with low incomes or are experiencing a decline in income will reduce cigarette consumption or buy cheaper cigarettes in order to continue to consume

cigarettes. Meanwhile, households with high incomes will continue to smoke in the same amount and brand without reducing spending on food, education, health and other expenses. Different things occur in non-smoking households, which consume the most on food expenditures, other needs, and educational needs. Households with household heads who work in the formal sector or are headed by female households, and households with household heads over 60 years of age prefer not to smoke. This can happen because of awareness of the dangers of smoking for physical health.

5. CONCLUSION

Based on the results of the discussion and analysis of the effect of income, savings, education level, number of household members, and household criteria (smokers and non-smokers) on household consumption expenditures in Sungailiat District, it can be concluded that income, number of household members, and household criteria (smokers and non-smokers) have a positive and significant effect on household consumption expenditure in Sungailiat District. Savings have a negative and insignificant effect on household consumption has a positive and insignificant effect on household consumption has a positive and insignificant effect on household consumption has a positive and insignificant effect on household consumption expenditure in Sungailiat District. Simultaneously income, savings, education level, number of household members, and household criteria (smokers and non-smokers) simultaneously have a positive and significant effect on household consumption expenditure in Sungailiat District.

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