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Function Analysis of Household Consumption in South Sulawesi Province (Case Study of Makassar, Gowa, Maros and Pare-Pare City)

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ABSTRACT

This study aims to determine the effect of permanent income and temporary income on people's consumption patterns in four regencies and cities in South Sulawesi Province (Makassar, Gowa, Maros, and Pare-Pare). By using the OLS (Ordinary Least Square)method and collecting data primarily by conducting interviews with two hundred community respondents, both workers from several professional fields, using a random sampling method. The results of this study indicate that permanent income has a positive and significant effect on people's consumption in four urban districts in South Sulawesi Province. However, temporary income does not have a significant effect on the level of public consumption in four regencies and cities in South Sulawesi Province. The simultaneous influence is believed that the level of consumption is still influenced by several other variables outside of this study, referring to the small F test value or only forty percent of the independent variables affecting the dependent variable.

Keywords: *Permanent Income, Temporary Income, Consumption, South Sulawesi.*

1. INTRODUCTION

Consumption is the total expenditure to obtain goods and services in an economy within a certain period of time. Consumption expenditure is the main component of Gross National Product, therefore the main attention needs to be paid attention to and focused on the analysis of the factors that determine consumption expenditure. Especially for household consumption expenditure, there are factors that determine the most, namely the level of household income. The higher the household income or society as a whole, the higher the level of consumption [1], [2].

Keynes argues that household consumption expenditure is strongly influenced by the size of the National Income, which means that household consumption expenditure will increase professionally if there is an increase in national income. The increase in household consumption expenditure is always smaller than the increase in income. The amount of the increase in consumption expenditure depends on the desires of the people in various consumptions, which is called the propensity to consume [2], [3], [4].

According to Friedman and Modigliani, that each individual will obtain higher satisfaction if they can maintain a stable consumption pattern than if they have to experience increases and decreases in their consumption. But Modigliani goes on to state that people will try to stabilize their level of consumption throughout their lives and also considers the important role of wealth or assets as a determinant of consumption behavior [5], [6]. People's consumption behavior can reflect the level of welfare of the people in an area and can affect changes in economic activity in a country. Public consumption expenditure is one of the macroeconomic variables, in the identity of national income according to the expenditure approach, the consumption variable is denoted by the letter C from the initials of the word consumption. A person's

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consumption expenditure is the part of his income that is spent. If the consumption expenditures of all people in a country are added up, the result is the consumption expenditure of the people of that country([7], [8], [9], ([10], ([11]

The average monthly per capita expenditure of South Sulawesi residents in 2019 was recorded at 228.72 thousand rupiah, which was an increase from previous years. This means that there is an increase in the level of public consumption from year to year regardless of whether it is in the city or in the village as well as food or non-food. As shown in table 1.

Table 1. Average Monthly Expenditure per Capita for Food and Non-Food in Urban and Rural Areas in South Sulawesi Province in 2011, 2012, 2013, 2014 and 2015 (Rupiah)

Styles	Average Expense per Month				
	2015	2016	2017	2018	2019
Author-Name	19.795	32.028	77.930	102.416	121.068
I. Food	14705	23065	44312	70269	107648
II. Not Food	5778	9549	17765	35678	45930
Housing and household facilities	3092	6681	13192	21811	35883
Goods and Services	2903	2853	6297	9061	9299
Clothing, footwear and headgear	1348	3011	4594	9646	11423
Durable goods	451	74	978	1469	3.025
Taxes and Insurance	1133	897	1486	2605	2.088
Party and ceremony needs	19.795	3 2.028	77.930	102.416	121.068
Total I + II	34.500	55.093	122.242	172.685	228.716

BPS,12,13,14

Based on Table 1. It shows that the average monthly per capita expenditure of South Sulawesi residents tends to increase every year. The distribution of expenditure for food and non-food consumption is closely related to the level of community welfare. In developing countries with low nutritional levels, meeting food needs as a basic need for life is still a top priority. The same thing happened in South-Sulawesi, both in urban and rural areas. In 2015, 48.9 percent of per capita expenditure in urban areas was used for food needs, while in rural areas it was recorded at 57.36 percent. Compared to 2002, there is a decrease in the percentage of expenditure on food consumption, both in urban and rural areas. In that year, the percentage of expenditure on food consumption in urban and rural areas was only 55.54 and 63.42 percent, respectively. As we have seen in table 1.1, where the level of public consumption increases every year, it is necessary to further investigate whether the variables mentioned above are the factors that cause changes in the level of public consumption. Based on the background described, a research was conducted on the effect of people's real income, real interest rates, and the inflation rate that occurred in South Sulawesi, on the level of public consumption in this case represented by 4 (four) big cities in South Sulawesi Province, namely Makassar, Maros, Gowa and Pare-Pare, with the title "Analysis of Community Consumption Functions in South-Sulawesi Province 2014-2019 (Case Study of Makassar, Maros, Gowa and Pare-Pare)".

2. LITERATUR REVIEW

Styles can be applied using the style palette available within the template. To activate it the press Ctrl+Shift+s. Apply the style as required based on the content and context. (Please don't highlight your text in yellow.) The concept of consumption, which is a concept that is Indonesianized from the English "Consumption". Consumption is spending on goods and services carried out by households with the aim of meeting the needs of the people who make these purchases. People's spending on food, clothing, and other goods they need is classified as expenditure or consumption. Goods that are produced to be used by the community to meet their needs are called consumer goods [7].

2.1 Absolute Income Hypothesis

The absolute income hypothesis was put forward by James Tobin, who said that consumption is determined by absolute income, so the relationship between income and consumption is a function of short-run consumption. There is a possibility that the short-run consumption function shifts over time so that it can turn into a long-run consumption function(Suparmoko, 1998). In a study conducted by Simon Kuznets which explains the function of short-term and long-term consumption, reveals that there are oddities about Keynes's theory of consumption. Simon Kuznets who examined consumption and income data using time series data found that the ratio between consumption and income was stable from decade to decade, even though there had been an increase in income so that Keynes's theory of decreasing APC with an increase in income did not apply ([12]), [13].

2.2 Relative Income Hypothesis

James Dusenberry argues that a society's consumption expenditure is determined primarily by the highest level of income it has ever attained. Decreased income, consumers will not reduce spending on consumption much. To maintain a high level of consumption, forced to reduce the amount of savings. If income increases, their consumption will also increase, but the increase is not too large. Meanwhile, saving will increase rapidly. This fact continues to be encountered until the highest level of income that we have achieved is reached again. After the peak of the previous income has been passed, the additional income will cause a lot of increase in

spending for consumption, while on the other hand the increase in saving is not so fast [14].

2.3 Permanent Income Hypothesis

The permanent income hypothesis was put forward by Milton Friedman in his book A Theory of the Consumption Function which defines it as the average long-term income expected to be received from human and non-human wealth. in return will get a salary, wages and others from his work. Meanwhile, income from non-human wealth is income obtained from fixed assets such as ownership of shares, bonds and real estate. In addition, according to this hypothesis, current consumption depends on current income and income that can be estimated in the future because someone has experience that his income changes randomly from year to year ([15], [[16], [17]

2.4 Relationship Between Consumption and Income

According to Keynes in Sukirno [15] public consumption expenditure is determined by the level of disposable income of the community concerned. Therefore Keynes put forward a law known as the Psychological Law of Consumption which discusses people's behavior regarding consumption when associated with income levels. The increase in residual income, namely income that is not spent on consumption, can trigger savings. This can happen if all consumption is met and applies to all able-bodied people who easily set aside some of their income for savings. For poor people, their income is only spent on consumption or sometimes the expenditure is greater than the income so that savings are negative or dissaving.

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Research conducted regarding "Analysis of Factors Affecting Household Consumption of TNI/POLRI Retirees in the Surakarta Region". using descriptive statistical analysis tools, regression analysis, classical assumption test and Chi Square test. The results of the study Taken together all the independent variables, namely income, number of family dependents, wealth and rank at a significance level of 5% have a positive and significant impact on household consumption of TNI/POLRI retirees. [17].

Research conducted by Siti Aisyiah and Izza Mafruhah (2003) which examined "Factors Affecting Consumption Patterns of the Surakarta Residency Sex Society During the Crisis (1998-2001)" used pooling regression analysis technique, which is a combination of time series data) and between regions (cross section) or called panel data. The result of this research is that the pattern of people's consumption behavior in a period is influenced by real income in that period, consumption in the previous period and the inflation rate, while the interest rate has no significant effect on people's consumption patterns [18].

Research conducted by Siti Fatimah Nurhayati and Masagus Rahman (2003) "Analysis of factors influencing the function of public consumption in Central Java Province in 2000". using multiple linear regression analysis. The results of this study are all independent variables, namely GRDP, population and inflation rate have a significant influence on public consumption expenditure [19]

Faizal (2019), The results showed 1). Pocket money (X1) has a positive and significant effect on the consumption patterns of boarding house students at UIN Alauddin Makassar (2). Scholarship (D1) has a positive and significant effect on the consumption patterns of boarding house students at UIN Alauddin Makassar. (3). Savings (D2) has no effect on the consumption pattern of boarding students at UIN Alauddin Makassar. Gender (D3) has no effect on the consumption patterns of boarding students at UIN Alauddin Makassar [20].

3. RESEARCH METHODS

This research on the analysis of community consumption patterns takes place in South Sulawesi, which will be represented by four major cities in the region, where the cities include Makassar, Maros, Pare-Pare and Gowa. The data used are secondary data obtained from institutions or agencies, including Bank Indonesia (BI) Makassar City and the Central Statistics Agency (BPS) for the South-Sulawesi Region. Primary data conducted by interviewing 200 respondents spread over four research locations in the South-Sulawesi region, namely Makassar City, Pare-Pare, Gowa Regency and Maros Regency. Dependent variable: Public consumption expenditures are expenditures made by households on goods and services with the aim of meeting the needs where real public consumption is measured in rupiah units Independent Variable, Permanent Income (X1): Community income earned in rupiah in one year month by calculating the salary and other income obtained regularly in that one month. Temporary Income (X2): Temporary income is people's income which is obtained in rupiah within one month by calculating income outside of the permanent income.

3.1 Fixed Effect

The F test is used to determine the panel data regression technique with Fixed Effect is better than the panel data regression model without a dummy variable by looking at the residual sum of squares (RSS). The statistical F test is as follows:

$$F = \frac{(RSS_1 - RSS_2)/m}{(RSS_2)/(n-k)} \quad (1)$$

Where RSS1 and RSS2 are residual sum of Squares technique without dummy variable and fixed effect technique with dummy. The null hypothesis is that the intercepts are the same. The calculated F statistical value will follow the F statistical distribution with m degrees of freedom (df) for the numerator and nk for the denumerator. m is the number of restrictions in the model without dummy variables, where n is the number of observations and k is the number of parameters in the Fixed Effect model.

3.2 Regression Estimation Model

In this study, the regression estimation model used refers to the consumption function model proposed by Duessenberg (1949) and Modigliani (1949) known as The Relative Income (RIH) which is modified. The model specifications are as follows:

$$C = b_1 x_1 + b_2 x_2 + e \quad (2)$$

4. RESULT AND DISCUSSION

4. 1 Characteristics of Makassar City Workers

Number of respondents based on workplace and gender respondents in this study amounted to 200 people of which 100 people worked as civil servants and 100 people worked as private employees and the sexes were 104 men and 96 women.

4.2 Age and Gender

The age of the respondent's workers is between 20 years to 51 years. From the data obtained, the most observed respondents ranged from 25 years to 29 years, as many as 88 people that the observed population is different from the expected population, where the expected population of 5 categories is 40 for each category. This means that the variation of the observed population is uneven.

4.3 Permanent Income

Permanent income is fixed income earned by workers every month, both income as employees and permanent income for workers outside of work as employees, where worker respondents earn income ranging from 750,000 rupiah to 12,000,000 rupiah. The most workers were workers who earned an income of 1,400,000 rupiah to 1,350,000 rupiah, as many as 58 people, while the fewest workers were workers who earned an income of 4,550,000 rupiah to 4,900,000 rupiah. that the observed population size based on permanent income is close to the expected population size, where the expected population size from 5 categories is 20 for each category. This means that the variation of the observed population is fairly even for each category.

4.5 Temporary Income

Temporary income is non-fixed income earned by workers in March 2019, both non-permanent income of workers as employees and non-permanent income of workers outside their work, such as salaries, allowances, bonuses and so on. Where worker respondents earn temporary income ranging from 75,000 rupiah to 11,000,000 rupiah. The most workers are workers who earn temporary incomes of 75,000 rupiahs to 175,000 rupiahs as many as 64 people, while the fewest workers are workers who earn 4,550,000 rupiahs to 12,000,000 rupiahs. that the number of observed populations based on temporary income is close to the expected population size, where the expected population size of 5 categories is 20 for each category. This means that the variation of the observed population is fairly even for each category.

4.6 Food Consumption

Food consumption is the amount of food consumption issued by workers in March 2019. Where food consumption includes rice, side dishes, fruits, cigarettes, water, milk, tea, coffee and others. Workers' food consumption in March 2019 started from 100,000 rupiah to 1,700,000 rupiah. Where 66 respondents spend their income on food consumption of 100,000 rupiah to 240,000 rupiah. While respondents who spend their income on food consumption of 750,000 rupiah to 1,700,000 rupiah are 14 people. that the observed population based on food consumption is close to the expected population size, where the expected population size of 5 categories is 40 for each category. This means that the variation of the observed population is fairly even for each category.

Normality test

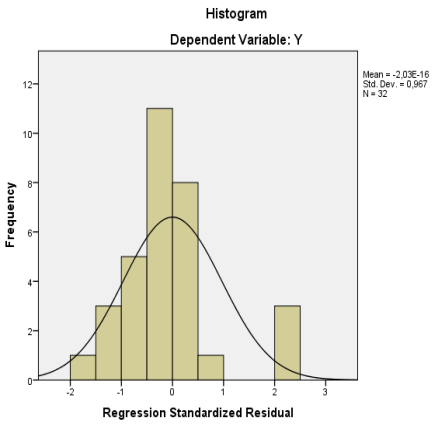

Figure 1. Result Regression

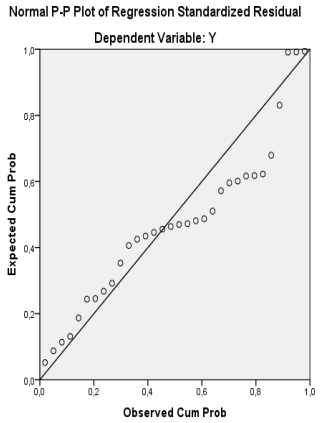

Figure 2. Analysis of Regression Results with OLS

4.7 t test

Partial test using the t test, using a significance of 5% and df 200, the value of t table = 1.645. This test aims to obtain the significance of the relationship of each independent variable to the dependent variable. Testing individually on the regression coefficients of each independent variable using a significance level of 5% obtained the following results: Permanent income has a calculated value of 2.447 > 1.645 with a significance level of 0.021. So it can be said that the permanent income variable has a positive and significant effect on the level of consumption in 4 urban districts in the Province of South Sulawesi. Meanwhile, temporary income has a calculated value of 0.417 < 1.645 with a significance level of 0.949, which means that temporary income has no significant effect on public consumption in four districts and cities in South Sulawesi Province.

4.8 Coefficient of Determination R2

This test is intended to measure how much the independent variable used in this study is able to explain the dependent variable. And from the calculation, it is obtained that the results of R2 are 0.420 or 42% of the variation in consumption variables explained by variations in the variables of Permanent Income and Temporary Income.

4.9 Test F test

That is simultaneously testing the relationship of independent variables as a whole with the dependent variable, by comparing the f count with the f table where the resulting f count is 3.101 while the f table is 2.60. With the result of calculated F greater than F table, Ho is rejected, this means that the independent variables simultaneously and significantly affect the dependent variable. Overall, the results of the regression estimation obtained and the conformity with the theory, as well as in terms of statistical significance from the results of the F test test, it can be said that together the two variables, both permanent income and temporary income, affect people's consumption in four districts and cities in the province. South Sulawesi.

Table 2. VALUE T

Variable	t-Statistic	t-Table	Keterangan
Permanen Income	2,447	1,645	Significant
Temporery Income	0,147	1,645	Non Significant

4.10 Economic Interpretation

From the results of data analysis obtained that permanent income has a positive and significant effect on consumption, this is in accordance with the economic theory of the consumption function as stated by Keynes where Keynes argues that a law known as the Phsylogical Law of Consumption which discusses people's behavior regarding consumption if it is related to income, namely "When income increases, consumption will also increase but not as much as an increase in income". It can be explained that income is a determining factor of the high and low of public consumption but the increase in consumption. It will not be greater than the increase in income, meaning that this additional income is not or not necessarily spent entirely on the consumption of people with low incomes.

Consumption is spending on goods and services by households with the aim of meeting the needs of the people who make the purchases. People's spending on food, clothing, and other necessities is classified as spending or consumption [25], [26], [27].

The effect of income on the level of consumption has a close relationship as it is said that income and wealth are the main determinants of consumption. [28], [29]

5. CONCLUSION

The effect of permanent income on the level of public consumption in four urban districts in the province of South Sulawesi on the public consumption equation, the hypothesis which states that there is a positive and significant relationship between permanent income and public consumption has been proven to be true. The OLS approach shows the same result, namely that permanent income has a positive and significant effect at the coefficient level of 0.422, which means that the permanent income of the community contributes a change of 42 percent. These results also support the findings of three previous studies which state that

income is an important factor influencing people's consumption in developing countriesThe effect of temporary income on the level of public consumption in four regencies and cities in the province of South Sulawesi in the public consumption equation shows no significant relationship, the hypothesis that there is a positive and significant relationship between temporary income and public consumption is not proven true.

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