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The Effect of Sociodemographic and Environmental Factors on Food Consumption Expenditure of the Urban Poor in Indonesia

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Abstract: This paper aims to assess sociodemographic and environmental factors on food consumption expenditure of urban poor households in 33 provinces in Indonesia from 2008-to 2019. The data used in this study were sourced from the Central Bureau of Statistics. The method used is panel data econometrics with a fixed-effect model. This study provides empirical evidence that income per capita, population, family planning acceptors, and single residents have a positive and significant effect on the food consumption expenditure of the urban poor. Meanwhile, access to drinking water and improved sanitation has a negative and significant effect on food consumption expenditures for the urban poor. The policy implication that can be prioritized is to increase human capital investment because it will increase competence and employment opportunities so that the income earned can increase consumption. Increasing family planning acceptors is also needed to suppress the population growth rate because if there are additional family members, it will increase the consumption burden. This will impact increasing poverty if a level of welfare does not accompany it. In addition, access to drinking water and improved sanitation needs to be improved because they impact the health of the population in the long term.

Keywords: Sociodemographic; Environmental; Food Consumption Expenditure; Urban Poor

Introduction

Poverty is a parasite in a country's economy. If allowed to drag on, it will cause severe socio-political problems, so a strategy is needed to eradicate or minimize it. Poverty alleviation needs to be done from various perspectives because poverty is a

multidimensional problem (Assegaf, 2015). The declaration of poverty alleviation shows the world's concern for this problem as one of the main targets and targets of the Sustainable Development Goals (SDGs), which will decorate the world's development plans from 2015-to 2030 (Hoelman et al., 2015). Goal 1 of the SDGs is "No Poverty". That is, the world has agreed to eradicate poverty.

Poverty has become a classic problem in economic development (Mansi et al., 2020). Poverty is closely related to food security because poor people have limitations in consuming their daily food (Zakiah, 2016). The conceptualization and measurement of poverty have been the subject of intensive research for more than a century (Christiaensen & Shorrocks, 2012). Higher levels of commercialization categorize urban poverty as having higher environmental and health risks, social fragmentation and crime. The urban poor is much more vulnerable than the rural poor due to their limited rights to control resources (Zainal et al., 2012). For example, adjustments to subsidy programs and government policies can have a disproportionate impact.

The phenomenon of poverty occurs at all provincial levels in Indonesia. Data from the Central Statistics Agency shows that the poor population in March 2020 was 26.42 million people, increasing from 1.63 million people in September 2019 and 1.28 million people in March 2019. Compared to September 2019, the number of poor people in March 2020 in urban areas increased by 1.3 million (from 9.86 million people in September 2019 to 11.16 million people in March 2020). Meanwhile, in rural areas, it rose by 333.9 thousand people (from 14.93 million people in September 2019 to 15.26 million people in March 2020).

The increase in the number of poor people is relatively high in Indonesia. However, there was an increase in population access to sanitation and improved drinking water in previous years, net enrollment ratio, family planning acceptors, and labour force participation rates. This data shows the gap phenomenon because it is an anomaly from empirical evidence that has been found in previous studies that education has been seen as the primary weapon against poverty (Awan et al., 2011; Awan et al., 2011; Julius & Bawane, 2011; Mutisya et al., 2016; Njong, 2010; Tsujita, 2012; Wibowo, 2011). The higher the level of education possessed by the community, the higher the competence and productivity (Rose & Dyer, 2008). This will affect the level of income which, in the end, people avoid poverty (Rolleston, 2011). The more people with a higher education level, the fewer poor people in a country (Sanz et al., 2017).

Residents who can access improved sanitation and drinking water significantly improve their health status (Hutton & Chase, 2016). Its linkages with education, livelihoods, and community welfare make sanitation and improved drinking water the basis of economic development (Mara et al., 2010; Sabogal et al., 2014). Another benefit of access to improved sanitation and drinking water impacts the community's economic climate and is very important to break the chain of poverty. This description is intended to show that environmental factors such as the availability of access to improved sanitation and drinking water are significant in understanding poverty (Maizunati, 2017). This study seeks to present the latest evidence on sociodemographic and environmental factors on consumption expenditures of urban poor households. Furthermore, we analyze why much progress has not been made and suggest strategies to increase the impact of sociodemographic and environmental factors on urban poverty reduction in Indonesia.

Literature Review

The population in urban areas is substantial, and the pace of development of urban areas in developing countries has severe social, economic and physical impacts (Hove et al., 2013). As a result, one of the problems is that urban poverty is one of the biggest and most urgent challenges facing modern society (Panori et al., 2019). The Central Bureau of Statistics uses the concept of the ability to fulfil fundamental rights to measure poverty in Indonesia. The poor have an average monthly per capita expenditure below the poverty line. The poverty proxy in this study uses the percentage of food consumption expenditure of the urban poor.

Food is primary consumption closely related to poverty because poor households are more focused on meeting their food needs than their non-food needs (Central Bureau of Statistics, 2017). In general, the structure of the expansion of food consumption can reflect the level of household welfare; as stated by Engel's Law, the higher the level of household income, the lower the percentage of expenditure on food consumption (Clements & Si, 2017; Deaton & Drèze, 2010; Maizunati, 2017). An increase in food consumption will increase total household expenditure, thus impacting households approaching or even exceeding the poverty line.

The United Nations projects the transformation of the population of urban areas by 2050 in as much as two-thirds of developing countries (Montgomery, 2009). This demographic transformation will have profound implications for people's health in urban areas. Several things can measure the health condition of the urban poor, one of which is environmental factors. The emergence of disease is influenced by many factors such as climate change, globalization, and urbanization, and some of these factors are, to some extent, caused by human activities (El-sayed & Kamel, 2020; Lindahl & Grace, 2015; Nii-Trebi, 2017). The environmental dimensions tested in this study include access to improved sanitation and drinking water.

Poverty occurs due to deprivation ability in the form of a person's lack of ability to ownership of basic needs, commodities, income, and resources (Burchi & Muro, 2016; Davis & Sanchez-martinez, 2014; Tenai, 2016; Wells, 2013). Poverty prevents a person from accessing essential services such as education, sanitation and improved drinking water (Duflo et al., 2012; Mukherjee et al., 2020; Nleya, 2008). Lack of household access to improved sanitation and drinking water can have an economic impact of 7% of GDP, excluding social and environmental consequences (Hutton & Chase, 2016). For this reason, improving access to sanitation and improved drinking water for urban poor households can provide economic and social benefits such as reduced cases and deaths from diarrhoea, malnutrition, and indirect impacts on health conditions.

The shift in the structure of the urban economy from manufacturing to service industries has resulted in most jobs requiring workers with unique skills and levels of formal education, which the poor cannot afford (Petrova, 2019; Pham, 2017). Various deregulations significantly affect the increase in the concentration of economic activity in big cities in Indonesia in the industrial and financial sectors carried out by the government to spur further and improve these economic sectors (Tjiptoherijanto, 2016). The urbanization of the low-income population is caused by the economic transformation that is concentrated in the formal sector. The formal sector provides income for the poor, but

on the other hand is a livelihood that is in great demand by rural residents, which triggers the growth of migration and contributes to changes in the social dimension in urban areas.

Poverty results from unfair rights. Including the right to access health, education and freedom (Davis & Sanchez-martinez, 2014). Access to public education can be seen from the indicators of literacy rates, school participation rates, and educational attainment. The urban poor does not always benefit from existing education programs. The urban poor has limited access to education (Cameron, 2016). A study conducted by Kartiasih & Pribadi, (2020) stated a significant negative effect of the literacy rate on poverty in Indonesia. Another study conducted by Tombolotutu et al. (2018) states that literacy rates positively and significantly affect poverty in districts/cities in Central Sulawesi. Although education does not directly affect the welfare of the population, participation of the poor in education is an essential investment in the long term. Education provides opportunities for the poor to develop their human resources, build good capabilities, and encourage increased economic productivity.

In Indonesia, the role of informal sector workers still dominates the total number of workers. Informal sector workers are in an unorganized, irregular and primarily legal but unregistered sector. The informal sector is a labour-intensive business sector that is in great demand by migrants and the urban poor with low skills (Chaudhuri, 2015; Sparks & Barnett, 2010). Sukmaniar et al. (2020) stated that most informal sector workers in urban areas are workers with low levels of education, are immigrants with many household members, and some live in slum areas. Good management of the informal sector is a capital to develop the productivity of the poor, which in turn can improve the welfare of the community.

The informal sector, identical with low productivity and less efficiency, is often seen as an obstacle to economic growth (Febrianto, 2020). However, the informal sector is like a hero for small groups of people because it can be used as a primary and alternative source of income (Nguyen et al., 2013; Paramita & D, 2013; Pitoyo, 2007; Porta & Shleifer, 2014). The existence of the informal sector in the national development system has shown a significant role. In addition to resilience, ease of substitution and flexibility in doing business, the informal sector also has promising prospects.

Low human capital will cause the population to grow faster, making investing in human capital more difficult. Efforts to suppress high population growth are carried out with family planning programs by encouraging couples of childbearing ages to use contraceptives. Allen (2007) said that family planning programs had played an essential role in controlling population growth, reducing poverty, and increasing the human development index. Evidence from the United Nations, governmental organizations, and other non-governmental organizations supported this conclusion.

High fertility rates and population growth lead to the transmission of poverty across generations and widen the income and health gaps of the lower and middle classes (Muniz, 2012; Wietzke, 2020). The results of research conducted by Bailey et al. (2014) provide evidence that family planning programs are associated with a reduction in children and adults living in poverty. This study was conducted on planning programs in the United States in the late 1960s and early 1970s and examined its relationship to poverty rates in short and medium-term public census data. The results showed that the group born after

the family planning program was less likely to live in poverty in childhood and the same group was less likely to live in poverty as an adult. In the long term, the implementation of the family planning program can choose a balance between growth and changes in the population's age structure and socio-economic development to impact a more prosperous life for the population.

Another phenomenon in which the married population has a higher average wage than the unmarried population, called the marriage premium, is well known (Heshmati et al., 2019). The impact of marital status, which is grouped into single, married, divorced or widowed, is interesting to examine on food consumption expenditures which may have a negative or positive relationship because they cooperate to increase the per capita income of their families.

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Methods

The data used in this study is secondary data about the percentage of food consumption expenditure of the urban poor and sociodemographic and environmental factors that are thought to have an effect. The data covers 33 provinces in Indonesia in 2008-2019 obtained from the Central Statistics Agency. North Kalimantan was not included in the unit of analysis for this study because it was only divided on November 16, 2012. A list of 33 provinces can be seen in Appendix 1. The variables in this study consist of response variables and predictor variables. The response variable used is the percentage of food consumption expenditure of the urban poor. While the predictor variables used are sociodemographic and environmental factors.

The analysis method used in this research is panel data analysis. According to Baltagi (2015), panel data analysis can use the fixed effect, random effect or pooled least square method. The selection of the best model among the three models uses the Hausman, Chow and Lagrange Multiplier test. The Hausman test determines whether the model will use a fixed effect or random effect, while the Lagrange Multiplier test is used to determine the best model between random effects or pooled least square. Chow test is used to determine the best model between fixed-effect or pooled least square.

The regression model built in this study is based on a study conducted by (Pindiriri, 2015). Their study states that the factors causing poverty, in general, can be modelled using a consumption model or a poverty model. This study will use a consumption model as research conducted by Pindiriri (2015) as follows:

$$PMAE_i = \beta_i X_i + \varepsilon_i \quad (1)$$

PMAE , $PMAE_i$ is the average per capita monthly percentage of food for poor urban households to-i, X_i is a vector causing consumption of low households to-i, and ε_i is an

error term. Pindiriri (2015) states that the advantages of using a consumption model include: (1) it can be used to reduce household consumption; (2) the consumption model does not require a strong distribution assumption. Furthermore, equation (1) is described based on the variables used in this study in order to obtain the following formula:

$$PMAE = f(Sociodemographic, Environmental) \quad (2)$$

Equation (2) assumes the specification from the model that PMAE is the percentage of food consumption expenditure of urban poor households, sociodemographic is the dimension of sociodemographic factors, environmental is the environmental factor. Equation (2) can be expanded as follows:

$$PMAE_{it} = Sociodemographic_{it}^{\beta} + Environmental_{it}^{\gamma} + \varepsilon_{it} \quad (3)$$

Equation (2) is rewritten in the form of an equation as follows:

$$PMAE_{it} = \alpha_{it} + \sum \beta Sociodemographic_{it} + \sum \gamma Environmental_{it} + \varepsilon_{it} \quad (4)$$

Equation (4) in this study for the sociodemographic variable is aggregated into ten types. The Environmental variable is aggregated into two variables: access to sanitation and improved drinking water. Equation (4) is then operationalized in the following form:

$$\begin{aligned} PMAE_{it} = {} & \alpha_{it} + \beta_1 Primary_{it} + \beta_2 Junior_{it} + \beta_3 Senior_{it} + \beta_4 GRDP_{it} \\ & + \beta_5 Labor_{it} \beta_6 Contraception_{it} + \beta_7 Single_{it} + \beta_8 Married_{it} \\ & + \beta_9 Divorced_{it} + \beta_{10} Widowed_{it} + \beta_{11} Water_{it} \\ & + \beta_{12} Sanitation_{it} + \varepsilon_{it} \end{aligned} \quad (5)$$

$PMAE$ is the consumption expenditure of the urban poor. $Primary$ is the net enrollment ratio (SD/MI/Package A). $Junior$ is the net enrollment ratio (SMP/MTs/Package B). $Senior$ is the net enrollment ratio (SMA/SMK/MA/Package C). $GRDP$ is GRDP per capita. $Labor$ is the percentage of the population working. $Contraception$ is the percentage of married women aged 15—49 years using the contraceptive method. $Single$ is the percentage of the population who are single status. $Married$ is the percentage of the population who are married status. $Divorced$ is the percentage of the population who are divorced. $Widowed$ is the percentage of the population who are widowed status. $Water$ is the percentage of household population by provinces and improved drinking water. $Sanitation$ is the percentage of household population by province and improved sanitation.

Findings

Empirical results

The results and discussion of this study will first discuss descriptive statistics and maps of the percentage of food consumption expenditure for the urban poor in 33 provinces in Indonesia from 2008 to 2019. Descriptive statistics, a distribution map of the average percentage per capita per month for urban poor household food, the best model test results, and panel data test results can be seen in Figure 1 and Tables 1-4.

The data in Figure 1 shows that the average percentage of monthly expenditure per capita on food for poor urban households in 2008—2019 was 51.79%, the highest in Aceh at 59.13% and the lowest in Jakarta at 38.04%. In Figure 1, Engel's law applies to conditions of urban poverty in 33 provinces in Indonesia. In low-income families, almost all income will be spent on consumption needs. If the income level of a family increases, then expenditures for other primary needs such as education and decent housing will also increase (Maizunati, 2017). It can be seen from the high percentage of food consumption expenditure for the urban poor in several provinces on the islands of Papua, Moluccas, Nusa Tenggara, Kalimantan, and Sumatra.

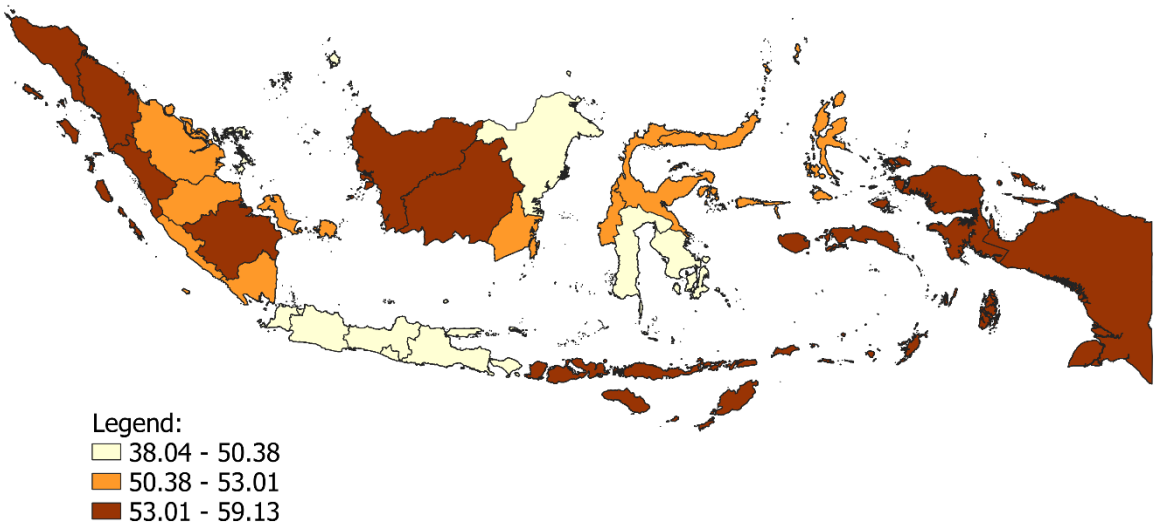

Figure 1. **Distribution of Average Food Consumption Expenditure for Urban Poor Households in Indonesia in 2008—2019 (%)**

Source: Author calculation

The net enrollment ratio (SD/MI/Package A) in 2008—2019 was 94.72%, the highest was in Central Kalimantan at 97.21%, and the lowest was in Papua at 76.64%. The net enrollment ratio (SMP/MTs/Package B) in 2009-2019 was 71.32%, the highest in Aceh at 82.01% and the lowest in Papua at 51.16%. The net enrollment ratio (SMA/SMK/MA/Package C) in 2008—2019 was 55.05%, the highest in Aceh was 66,095, and the lowest was in Papua at 38.83%.

The average income per capita in 2008—2019 was IDR35156.14, the highest in Jakarta was IDR134847 and the lowest was in East Nusa Tenggara at IDR10616.75. The average percentage of the working population in 2008—2019 was 69.81%, the highest was Bali at 97.79%, and the lowest was Banten at 89.44%. The average population in 2008—2019 was 7.5 people, the highest was West Java at 44 million, and the lowest was West Papua at 804 thousand. The average percentage of married women aged 15—49 years who are currently using contraception methods in 2008—2019 is 56.79%, the highest in Central Kalimantan at 69.25%, and the lowest in Papua 25.88%. The average percentage of the population who are single status in 2008—2019 was 34.19%, the highest in East Java and the lowest in Aceh at 40.46%.

The average percentage of the married status population in 2008—2019 was 58.28%, the highest was in Bali at 63.10%, and the lowest was in Aceh at 51.35%. The average percentage of the population with divorced status in 2008—2019 was 1.75%, the highest was in West Nusa Tenggara at 3.12%, and the lowest was in Papua at 1.05%. The average percentage of the population with widowed status in 2008—2019 was 5.31%, the highest was in East Java at 8.08%, and the lowest was in the Riau Islands at 3.29%.

The average percentage of household population by province and improved drinking water in 2008—2019 was 64.00%, the highest in Bali at 83.36%, and the lowest in Bengkulu at 40.24%. The average percentage of household population by province and improved sanitation in 2008—2019 was 58.80%, the highest in Jakarta at 84.46%, and the lowest in Papua at 27.44%.

Table 1. **Descriptive statistics**

Variable	Obs.	Mean	S.D.	Min	Max
PMAE	396	51.79	5.00	33.76	69.61
Primary	396	94.72	4.14	69.60	99.53
Junior	396	71.32	8.60	43.61	86.75
Senior	396	55.05	9.44	29.16	73.01
GRDP	396	35156.14	28322.72	8820.00	174137
Labour	396	69.81	3.94	57.63	81.12
Population	396	7503.55	10692.16	730.00	54472.00
Contraception	363	56.79	10.45	23.37	72.88
Single	330	34.19	3.59	22.51	43.66
Married	330	58.28	3.12	48.98	63.78
Divorced	330	1.74	0.47	3.44	0.94
Widowed	330	5.31	1.09	2.94	8.27
Water	363	64.00	15.20	22.32	99.82
Sanitation	396	58.80	16.58	14.98	94.67

Source: Author's calculation

Table 2. shows the results of the Chow and Hausman tests to select the most appropriate estimate from the data panel. Based on the Chow test, it was found that Prob. Cross-section Chi-square < □ (5%) or 0.0000 < 0.05. Hausman test shows Prob. Cross-section random 0.0003 < □ (5%) or 0.0050 < 0.05. Based on the results of the Chow and Hausman tests, it can be concluded that the correct model for estimating panel data is to use the FEM.

Table 2. **The Result of Chow and Hausman Test**

Chow test			
	Statistic	Prob.	Conclusion
Cross-section Chi-square	195.523626	0.0000	fixed effect model (FEM)
Hausman test			
	Chi-Sq. Statistic	Prob.	Conclusion
Cross-section random	37.576610	0.0003	fixed effect model (FEM)

Source: Author's calculation

Table 3 shows the results of panel data estimation using the FEM approach that sociodemographic and environmental factors have different effects on food consumption expenditures of urban poor households.

The income per capita has a positive and significant effect at the 1% level with a p-value of 0.0000. The coefficient of income per capita is 0.000166. This means that an increase in the per capita income of urban poor households in 33 provinces in Indonesia by IDR1 million will increase consumption expenditures of urban poor households by IDR0.00016 million, ceteris paribus. The results of this study are by research Firmansyah (2017); Hanum & Sarlia (2019); Zainuddin et al. (2020) which show that per capita income has a positive effect on household food consumption expenditure. This is also to the theory, which states that the level of income influences consumption and the value of the Marginal Propensity to Consume (MPC) will be between 0 to 1 (Keynes' assumption).

The total population in 33 provinces in Indonesia has a positive and significant effect at 10%, with a p-value of 0.0774. The coefficient value of the population is 0.000571. This means that an increase in the population in 33 provinces in Indonesia by 1% will increase the consumption expenditure of urban poor households by 0.000571%, ceteris paribus. The results of this study are by research Firmansyah (2017) which states that the population has a significant effect on household consumption expenditures in Riau Province.

Table 3. **The Estimation Result of Fixed Effect Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Primary	0.020618	0.091303	0.225815	0.8215
Junior	0.103857	0.068740	1.510866	0.1319
Senior	-0.066676	0.046419	-1.436408	0.1520
GRDP	0.000166	2.65E-05	6.279856	0.0000***
Labour	-0.083470	0.038532	-1.217959	0.2243

Population	0.000571	0.000322	1.772677	0.0774*
Contraception	-0.148648	0.054115	-2.746883	0.0064*
Single	0.407157	12.38264	5.916950	0.0000***
Married	0.104203	0.068812	0.762191	0.4466
Divorced	-0.444882	0.136715	-0.577268	0.5642
Widowed	-0.681908	0.770668	-1.354825	0.1765
Water	-0.057850	0.503318	-3.762332	0.0002*
Sanitation	-0.052611	0.018913	-2.781809	0.0058*
C	24.57159	12.38264	1.984357	0.0482**
R-squared			0.917636	
Adjusted R-squared			0.904585	
F-statistic			70.31360	
Prob(F-statistic)			0.000000	

Note: The dependent variable is the percentage of food consumption in low households. *, **, and *** significant at 10%, 5%, 1% levels, respectively.
Source: Author's calculation

Percentage of married women aged 15—49 years who are currently using the contraception method has a negative and significant effect at the level of 10%, with a p-value of 0.0064. This means that the better literacy of the urban poor who are currently listed as family planning acceptors, the lower food consumption expenditure by 0.0064%, ceteris paribus. The results of this study are from previous research Maizunati (2017). The percentage of the population who is single status has a positive and significant effect at the 1% level with a p-value of 0.0000. The coefficient value of the percentage of the single population is 0.407147. This means that people with single status have higher food consumption expenditures than people who are married or divorced/widowed by 0.407147%, ceteris paribus. The results of this study are by research Heshmati et al. (2019) conducted in India, which states that people with single status have a higher per capita expenditure than those married or divorced/widowed.

The percentage of household population by province and improved drinking water has a negative and significant effect at the 1% level with a p-value of 0.0002 and a coefficient value of -0.57850. This means that every increase in the population having access to safe drinking water can reduce food consumption expenditures for the urban poor in 33 provinces in Indonesia by 0.57850%, ceteris paribus. The results of this study are from previous research Maizunati (2017). The percentage of household population by province and improved sanitation has a negative and significant effect at the 1% level with a p-value of 0.0058 and a coefficient value of -0.052611. This means that every increase in the population having access to improved sanitation can reduce food consumption expenditures for the urban poor in 33 provinces in Indonesia by 0.0526115, ceteris paribus. The results of this study are from previous research Maizunati (2017).

In addition, sociodemographic factors such as the level of primary and junior secondary education have a positive and insignificant effect on food consumption expenditure. Upper secondary education level, married population, divorced population, widowed population, and the percentage of the working population have a negative and insignificant effect on food consumption expenditure. The results of this study are not by previous empirical evidence (Heshmati et al., 2019; Maizunati, 2017).

Discussion

This study indicates that the urban poor will decide to add more types of goods and services to be consumed or increase the number of goods and services to be purchased. So, it can be concluded that the urban poor in 33 provinces in Indonesia will increase their consumption when their income increases. However, the expectation of increasing consumption units must be faced with the number of family dependents. The need to increase consumption based on desires or tastes will be ignored and shifted to meeting primary needs (Heshmati et al., 2019).

The increasing number of residents also affects the increase in consumption expenditure of urban poor households because of many goods demanded. The increasing population causes the demand curve to shift to the upper right, which means that the number of goods purchased by consumers will increase at each price level (Firmansyah, 2017). The family planning program affects reducing food consumption for the urban poor. Controlling the growth rate of the poor is very important given the addition of new family members if a significant increase does not follow it in welfare. If this problem is not addressed, it will trigger an increase in the depth of poverty (Maizunati, 2017). In addition, marital status showed different results. Surprisingly, the findings of this study show that people who have never been married have a higher level of consumption than those who are married.

The urban poor has very little fulfilment of their essential needs services such as water and improved sanitation. This condition occurs partially due to a lack of government assistance and handling in maintenance and new investment in environmental infrastructure needed by local communities (Maizunati, 2017). Many households in urban areas do not have access to clean water compared to households in rural areas. Many urban poor are forced to buy clean water, and they even depend on more expensive "private" drinking water facilities. Likewise, the conditions are lacking and depressing in terms of sanitation facilities, although there is not much difference between urban and rural areas. The results of this study indicate a negative and significant effect on the level of food consumption of low households. Impact on reducing food consumption so that low urban households can allocate their income to beneficial ownership of water and improved sanitation for their daily needs.

Conclusion

This study provides empirical evidence that per capita income, total population, and single population have a positive and significant effect on food consumption expenditures for the urban poor. Meanwhile, the percentage of married women aged 15—49 years who are currently using the contraceptive method, improved drinking water, and improved sanitation has a negative and significant impact on food consumption expenditures for the urban poor. The first policy implication that needs to be prioritized is to prioritize the improvement of the quality of human capital of the urban poor. This improvement in human capital will trigger optimal competence for the poor and increase employment opportunities in the formal sector, contributing to increased income and welfare.

Second, controlling the population is an equally important component. Although the family planning program has been implemented for a long time, the socialization of this program needs to be carried out continuously so that the participation of the urban poor as family

planning acceptors increases. The success of controlling the growth rate of the poor through family planning programs must be supported by efforts to minimize the number of unmet needs and early age marriages. The percentage of family planning acceptors in each province with a high poverty rate needs to be continuously monitored. The data shows that the trend of using family planning tools by low households is decreasing in Indonesia. It is necessary to provide counselling and guidance on family planning programs supported by increasing access to information to the public about the importance of this program.

Third, improving the quality of the environment by providing access for the urban poor to clean water and improved drinking water, sanitation, and hygiene will improve the health of the urban poor in the long term.

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Appendix

Appendix 1. **List of Provinces**

Aceh	West Nusa Tenggara
North Sumatra	East Nusa Tenggara
West Sumatra	West Kalimantan
Riau	Central Kalimantan
Jambi	South Kalimantan
South Sumatra	East Kalimantan
Bengkulu	North Sulawesi
Lampung	Central Sulawesi
Bangka Belitung Island	South Sulawesi
Riau Islands	Southeast Sulawesi
Jakarta	Gorontalo
West Java	West Sulawesi
Central Java	Moluccas
Yogyakarta	North Moluccas
East Java	West Papua
Banten	Papua
Bali	

Source: Central Bureau of Statistics