

Trends in household food expenditure in Indonesia: Analysis of the period 2018–2022

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Abstract

Food expenditure is an important indicator in analyzing household economic resilience. The high proportion of food expenditure indicates economic vulnerability, especially among low-income households. This study aims to analyze the change in the percentage of households with a share of more than 65% in food expenditure in Indonesia during the period 2018–2022. Secondary data were used from a five-year national survey (2018–2022). The analysis was carried out to identify patterns of change and factors that affect the dynamics of household food expenditure. Results show a decrease in the proportion of households with a share of food expenditure >65% from 40.89% in 2018 to 34.23% in 2022. However, a volatile trend occurred, especially in 2020 and 2021 due to the impact of the COVID-19 pandemic. Certain regions showed significant increases in 2022, reflecting regional disparities. These findings underscore the need for policies to strengthen the household economy and equitable access to food to reduce vulnerability. This analysis can be the basis for policymakers in designing poverty alleviation programs.

Keywords

Food expenditure, Households, Economic vulnerability, Food security

Introduction

Food expenditure reflects a household's economic ability to meet its basic needs. A high proportion of food expenditure usually indicates economic vulnerability, especially among low-income households. Household economic resilience is one of the main factors affecting food security. Therefore, an in-depth analysis of food spending can provide important insights for understanding household economic and social challenges. Previous research shows that the proportion of food expenditure to total expenditure is often used as an indicator of household food security [1] revealed that rice farming households in Padang allocate more than 60% of their spending on food, reflecting a significant level of vulnerability to economic changes. In addition, the

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research of [2] shows a close relationship between household food security and nutritional status, including anemia in pregnant women, which is influenced by economic factors. However, there are still gaps in the literature that examine specific factors that affect overall household food spending, such as the impact of education, local food access, and post-pandemic socioeconomic changes. This study aims to answer a key question: How does the proportion of food expenditure reflect the level of economic vulnerability of households in different social contexts? This study will also explore the relationship between food access and economic factors, such as income and education, as highlighted by [3] who found that income and education of the head of the family have a significant effect on food access. This study aims to analyze the change in the percentage of households with a share of more than 65% in food expenditure in Indonesia during the period 2018–2022.

Literature Review

Household food expenditure is often used as an indicator of economic resilience, especially in developing countries such as Indonesia. The high proportion of food expenditure reflects a large allocation to basic needs, which indicates vulnerability to economic shocks. For example, research by [1] revealed that the proportion of food expenditure in farmer households in Padang City reached an average of 60.26%, which shows high economic dependence on the food sector. Factors such as income, education, and access to food sources have a significant influence on food spending patterns [3], [4] showed that the level of education of the head of the family has an effect on the diversification of expenditure and the level of food security. Another study found that households in urban areas are more at risk of facing food insecurity during the COVID-19 pandemic due to drastic socioeconomic changes [5], [6], [7]. Government programs such as non-cash food assistance have been designed to reduce the burden of household food expenditure. Research by [8] shows that this program has not been fully effective in achieving the goal of equitable distribution, especially in rural areas. However, there is a gap in understanding how socioeconomic changes, such as migration and remittance management, affect household economic resilience. Research by [9] found that strategies for surviving migrant households during the pandemic, such as income diversification through agriculture and small businesses, had a significant impact on economic stability. Although the literature shows that food expenditure is an important indicator for household economic resilience, an in-depth study of the dynamics of the proportion of food expenditure is still needed, especially in the context of rapid socio-economic change. Based on these findings, this study aims to answer the question: How does the change in the proportion of households with food expenditure of more than 65% in Indonesia reflect the level of economic vulnerability during the period 2018–2022?.

Method

This study uses a descriptive quantitative method to analyze the proportion of households with a share of food expenditure of more than 65% in Indonesia during the period 2018–2022. This method was chosen to provide a systematic overview of the phenomenon being studied and identify the relationship between related variables. The research was carried out with a cross-sectional design using secondary data obtained from the national socio-economic survey (Susenas) by the Central Statistics Agency (BPS). The selection of data is based on national coverage, geographical representation, and high statistical accuracy. The research sample was taken stratified by region (urban and rural) to ensure equal representation. This stratification approach refers to [1] research which shows the importance of considering geographical characteristics in household expenditure analysis. Primary data were not collected in this study. Secondary data from Susenas is used because it includes detailed information about household income, expenses, and characteristics. This secondary data collection technique is relevant to a study by [3], which highlights the importance of integrated data to understand household food security. Data analysis was carried out with a descriptive statistical approach to identify trends of change in the share of food expenditure. Regression techniques were used to explore the relationship between independent variables (income, education, family size) and dependent variables (share of food expenditure). A study by [9], [10] shows that this approach is effective in uncovering factors that affect household economic resilience. The validity of the research is ensured through the use of nationally recognized and recommended data for public policy analysis. Reliability is achieved through data triangulation by comparing the results of the analysis with previous studies, such as those conducted by [2] in food security and nutritional status research.

Results

The results of the study showed significant variation in the proportion of households with a share of more than 65% in various provinces in Indonesia during the period 2018–2022. Several provinces experienced a consistent decline in this proportion, such as DKI Jakarta and Bali. In DKI Jakarta, the proportion of households with high food expenditure decreased from 15.32% in 2018 to 8.42% in 2022. This decline indicates improved food access and better consumption diversification, supported by higher incomes in urban areas [1]. On the other hand, Papua showed a significant increase from 34.76% in 2018 to 45.65% in 2022. This increase indicates economic and infrastructure challenges that still affect food access in the region. This condition reflects how inequality in food access remains a critical issue in several remote areas [2]. Provinces such as West Nusa Tenggara showed large fluctuations, with a decrease of up to 24.99% in 2020 but a drastic increase to 50.76% in 2022. Percentage of households with a share of food expenditure presented in Table 1.

Table 1. Percentage of Households with a Share of Food Expenditure >65% in 2018–2022

Province	2018	2019	2020	2021	2022
Aceh	40.89	41.27	36.06	38.9	34.23
North Sumatera	35.47	34.8	28.49	29.56	31.76
West Sumatera	32.05	30.56	28.63	25.77	29.28
Riau	22.95	22.25	18.56	18.81	20.85
Jambi	30.81	32.12	27.14	23.23	26.67
South Sumatera	25.91	26.65	27.2	26.27	28.85
Bengkulu	28.42	26.42	27.54	24.55	24.94
Lampung	29.11	28.5	26.3	25.23	24.99
Bangka Belitung Islands	15.4	16.22	15.11	15.18	19.48
Riau Islands	10.97	7.44	8.39	7.13	7.44
Jakarta	15.32	16.6	16.51	11.38	8.42
West Java	34.85	36.65	31.3	30.73	27.97
Central Java	28.7	26.49	22.55	23.12	24.55
Yogyakarta	18.92	20.24	21.45	19.2	16.48
East Java	33.94	30.68	28.21	29.42	31.23
Banten	26.74	31.33	26.02	22.61	24.96
Bali	15.32	13.15	17.43	10.87	8.69
West Nusa Tenggara	49.63	27.88	24.99	26.52	50.76
Eastern South-East Nusa	46.93	54.91	46.12	41.54	33.26
West Kalimantan	27.27	27.39	21.55	19.95	25.24
Central Kalimantan	23.7	23	20.48	19.55	22.67
South Kalimantan	25.62	25.11	23.54	20.16	21.29
East Kalimantan	9.82	9.51	7.8	7.39	6.86
Northern Kalimantan	11.09	15.04	11.76	9.17	9.95
Northern Sulawesi	24.91	25.32	21.14	27.69	37.31
Central Sulawesi	24.68	27.45	23.01	16.55	19.41
South Sulawesi	19.99	18.25	27.24	22.45	20.41
Southeast Sulawesi	15.06	13.84	27.59	24.04	19.27
Gorontalo	14.72	12.35	12.19	10.66	26.77
West Sulawesi	32.38	39.31	29.32	24.87	25.19
Maluku	19.36	23.26	13.77	11.26	15.47
North Maluku	17.4	18.97	12.26	10.58	15.41
West Papua	25.61	19.17	19.94	15.67	16.95
Papua	34.76	34.74	31.24	37.17	45.65

Source: [11]

These fluctuations are suspected to be influenced by local policies and the impact of the pandemic on household income. This pattern is in line with findings that show that low-income households are more vulnerable to economic shocks [3]. The main factors that affect the proportion of food expenditure include household income, food access and infrastructure, and local food price levels [12], [13]. Low-income households tend to allocate most of their income to food, while uneven food distribution in remote areas also exacerbates the burden of food expenditure [9]. These results are consistent with previous literature, such as research by [5], which shows that economic pressure on low-income households tends to increase during global economic crises or pandemics. These results provide important insights for the development of more effective policies to address inequalities in food spending. Programs such as non-cash food assistance need to be optimized to reduce the vulnerability of households to economic shocks. By integrating these data and analysis results, the government can improve household food security [14], [15], especially in the most affected areas.

Discussion

The results show that the proportion of households with a share of food expenditure of more than 65% in Indonesia has significant variation between provinces during the period 2018–2022. Significant declines were seen in urban provinces such as Jakarta and Bali, while Papua experienced significant increases. The decrease in the proportion of food expenditure in urban areas can be attributed to better access to economic resources and consumption diversification, as explained by [1] research, which highlights how income factors affect household spending patterns in urban areas. On the contrary, the increase in the proportion of food expenditure in Papua reflects infrastructure challenges that continue to affect access to food, as emphasized by [2]. These findings indicate that remote areas face limited access to food and a large dependence on local staple foods, which increases vulnerability to economic shocks [16], [17]. This research supports the results of [5], which shows that low-income households in urban areas face greater economic pressures during crises such as the COVID-19 pandemic. They highlight the importance of income diversification in maintaining household economic stability [18], [19]. However, these findings are in contrast to the study by [9], which indicated that local strategies such as small businesses can significantly reduce the burden of food expenditure in certain areas. Fluctuations such as those seen in West Nusa Tenggara can reflect the impact of inconsistent local policies on food access. Theoretically, the results of this study reinforce the concept that the proportion of food expenditure is a critical indicator to measure household economic vulnerability. The study highlights the need to tailor policy strategies based on regional characteristics, including income, infrastructure, and food access. In practical terms, the government must increase the efficiency of non-cash food assistance programs and support the diversification of household income. In addition, it is necessary to invest in infrastructure to increase food distribution, especially in remote areas such as Papua. Support for micro businesses in the food sector can also help reduce the burden of household spending. Future research can explore the relationship between socio-economic dynamics such as education of heads of households and shifting consumption patterns with food spending. Longitudinal studies are also needed to understand the impact of policy interventions on household food security in the long term. With these findings, this study makes an important contribution to a more inclusive and data-driven food security policy.

Conclusion

This study has analyzed changes in the proportion of households with a share of more than 65% in food expenditure in Indonesia during the period 2018–2022. The results show significant variation between provinces, with a downward trend in urban areas such as DKI Jakarta and Bali, as well as an increase in remote areas such as Papua. The decline reflects improved access to economic resources, consumption diversification, and government intervention programs, while improvements in remote areas indicate

infrastructure challenges and limited access to food. These findings are relevant to previous research that highlights the importance of income and access as key determinants of household food spending. However, this study has some limitations. The data used are secondary and do not include in-depth analysis of social dynamics such as education and household economic mobility, which may influence food spending patterns. In addition, the quantitative approach used has not yet identified specific factors that contribute to regional variations in the proportion of food expenditure.

The implications of these findings are important for theory and practice. Theoretically, this study emphasizes the importance of food expenditure indicators as a tool to understand household economic vulnerabilities. Practically, governments can use these results to direct policy interventions, such as expanding cashless food aid and improving food distribution infrastructure in remote areas. For further research, it is recommended to explore social factors such as the level of education of heads of households, changes in consumption patterns, and the direct impact of food intervention policies. Longitudinal research is also needed to measure the long-term impact of socioeconomic changes on household food security. By understanding these dynamics more deeply, policies can be designed more effectively to reduce inequality and improve the welfare of people throughout Indonesia.

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