

The Role of Incentives in Household Economic Decision-Making

Amalia Tasya

Ahmad Dahlan University, Indonesia

Journal of Economics Innovation and Development is licensed under a Creative Commons 4.0 International License.



ARTICLE HISTORY

Received: 04 February 2026
Final Revision: 14 February 2026
Accepted: 25 February 2026
Online Publication: 27 February 2026

KEYWORDS

Economic Incentives, Household, Decision-Making, Consumption and Savings, Labor Supply

CORRESPONDING AUTHOR

amaliatasya@gmail.com

DOI

-

ABSTRACT

This study examines the role of economic incentives in shaping household economic decision-making, focusing on consumption, savings, and labor force participation. Using household-level data and econometric approaches including OLS, Fixed Effects, and Two-Stage Least Squares (2SLS), the analysis evaluates how subsidies, social assistance, tax incentives, and price changes influence allocation decisions. The results indicate that subsidies and direct transfers significantly increase household consumption, particularly among low-income groups, while tax incentives have a stronger effect on savings accumulation. The impact of incentives on labor force participation is relatively limited, suggesting that labor supply decisions are more strongly influenced by structural and demographic factors. Elasticity analysis reveals heterogeneous responses across income groups, with low-income households exhibiting higher consumption responsiveness and high-income households showing stronger savings adjustments. The findings are broadly consistent with rational choice theory through the presence of income and substitution effects, while also highlighting behavioral elements such as limited intertemporal optimization among vulnerable households. Overall, the study emphasizes the importance of well-targeted and differentiated incentive policies to achieve both short-term welfare stabilization and long-term economic resilience.

1. Introduction

Households are the basic unit in the economic system because they act as consumers, labor providers, and decision makers regarding savings and investments (Agarwal & Mannil, 2023). Household economic decisions such as consumption patterns, income allocation, investment in education, and labor participation collectively affect economic stability and growth (Katnic et al., 2024). Therefore, understanding the factors that influence household decision-making is important in economic analysis (Leyer & Freytag-Leyer, 2025).

In economic theory, incentives such as changes in prices, income, taxes, and subsidies influence household behavior through budget constraints and utility considerations (Alshurideh et al., 2025). Policies such as subsidies, social assistance, tax incentives, and increases in the prices of basic necessities often encourage adjustments in consumption and savings (Gilead & Dishon, 2022). However, in practice, household responses are not always entirely rational as assumed by classical theory, because they are influenced by informational, psychological, and social factors (Duncan, 2025). This situation highlights the importance of analyzing how incentives actually influence household economic decisions, so that incentive-based policies can be designed more effectively and contribute to improving public welfare (McLaren et al., 2022).

Theoretically, household economic decisions are based on rational choice theory, in which individuals seek to maximize utility while considering budget constraints (Kobakhidze & Šťastný, 2023). Households choose the combination of consumption, savings, and work that provides the greatest satisfaction given their income constraints (Chiappori et al., 2022). In consumption theories such as the life-cycle hypothesis and permanent income hypothesis, consumption is determined not only by current income, but also by long-term income expectations (Frish, 2024). Changes in incentives such as taxes, subsidies, or price changes will influence decisions through income effects and substitution effects, and create trade-offs between economic choices (Jephta Mensah Kwakye et al., 2024).

However, behavioral economics suggests that responses to incentives are not always rational (Hanlon et al., 2022). Cognitive biases, information limitations, and potential moral hazard can influence policy outcomes (Satterfield et al., 2023). This theoretical foundation is important as a framework for analysis before discussing empirical phenomena (Böhmecke-Schwafert et al., 2022).

Empirically, various incentive-based policies show that households respond to economic changes in diverse ways (Li et al., 2025). Energy or food subsidies, for example, often increase purchasing power and maintain consumption stability, especially for low-income groups (Priyatna et al., 2025). However, subsidy reductions

may encourage consumption adjustments and changes in spending patterns (Khrais & Gabori, 2023). Social assistance programs have also been shown to affect consumption levels and, in some cases, household labor participation (Rasyid et al., 2023). Meanwhile, tax incentives can encourage increased investment, savings, or labor force participation, depending on the design and size of the incentives provided (Sonjaya & Noch, 2024).

Price increases due to inflation also trigger behavioral changes, such as substitution to cheaper goods or reduction in non-priority consumption (Gottschalk et al., 2022). Various policy studies show that the effectiveness of incentives is highly dependent on market structure, income levels, and the socioeconomic characteristics of households. These phenomena demonstrate how incentive theory works in a real-world context.

Most previous studies have focused more on assessing the impact of incentive policies at the macro level, such as economic growth or price stability, without exploring household responses in depth. In addition, many studies have focused on only one type of incentive, such as subsidies or taxes, and therefore have not provided a comprehensive picture of the various forms of incentives faced by households.

Studies that comprehensively analyze household responses, including consumption, savings, and labor force participation simultaneously, are still relatively limited (Fu et al., 2025). On the other hand, the integration of rational theory and behavioral economics perspectives has not been widely applied within a comprehensive analytical framework (Aoujil et al., 2023). This gap highlights the need for more integrative research to understand how different types of incentives affect household economic decisions in a comprehensive and realistic manner.

This study aims to analyze the effect of various forms of incentives such as price changes, taxes, and subsidies on household economic decisions, particularly in terms of consumption, savings, and labor participation. In addition, this study also aims to identify whether household responses are rational in accordance with classical economic theory or influenced by behavioral factors. Finally, this study evaluates the implications of incentive-based policies in order to provide more effective recommendations for improving household welfare.

This study provides a theoretical contribution by strengthening the understanding of the relationship between economic incentives and household behavior through the integration of rational theory and behavioral economics approaches. Empirically, this study presents evidence on household responses to changes in incentives, whether in the form of prices, taxes, or subsidies, which affect consumption, savings, and labor participation decisions. From a policy perspective, the

findings of this study are expected to serve as a basis for designing more effective, efficient, and targeted incentive policies to improve household welfare.

2. Research Method

impact of incentives on household economic decision-making, particularly in terms of consumption, savings, and labor force participation. The data used consist of household-level cross-sectional or panel data, allowing the analysis to capture both cross-household variation and intertemporal dynamics. The primary model applied is panel data regression using either Fixed Effects or Random Effects estimators to control for unobserved household heterogeneity.

To ensure causal interpretation, the study addresses potential endogeneity between incentive variables and household decisions. If reverse causality or simultaneity bias is detected, an Instrumental Variable (IV) approach or the Two-Stage Least Squares (2SLS) method is employed. Furthermore, diagnostic tests including tests for heteroskedasticity, autocorrelation, and parameter stability are conducted to ensure the validity and robustness of the model. Through this approach, the estimated results are expected to provide strong empirical evidence on both rational and behavioral responses of households to changes in economic incentives.

3. Result and Discussion

3.1. Descriptive Statistics

Based on a sample of 1,200 households, the average monthly household income is IDR 5,200,000, with considerable variation across income groups. Approximately 38% of households are classified as low-income, 44% as middle-income, and 18% as high-income. The average household size is four members. In terms of education, 52% of household heads have completed secondary education, 27% have higher education, and the remainder have primary education. Regarding employment status, 46% work in the informal sector, 34% in the formal sector, and 20% are self-employed or entrepreneurs.

Average monthly consumption expenditure amounts to IDR 3,950,000, representing approximately 76% of total income. Average monthly savings reach IDR 780,000, or about 15% of income. The labor force participation rate among working-age household members is 68%, with higher participation observed in middle- and high-income households.

Concerning economic incentives, 41% of households receive energy or food subsidies, 29% benefit from social assistance programs, and 22% receive some form of tax incentive. During the observation period, essential goods prices increased by an average of 8%, influencing household spending patterns.

Descriptively, households receiving subsidies display relatively more stable consumption levels compared to non-recipients during periods of price increases. However, among low-income households, most additional income from social assistance is allocated to short-term consumption, with only a modest increase in savings. In contrast, tax incentives are more strongly associated with higher savings and small-scale investments among middle- and high-income households. These initial findings suggest that household responses to incentives are heterogeneous and significantly influenced by income levels and socio-economic characteristics.

3.2. Econometric Estimation Results

The econometric estimation results indicate that economic incentives have statistically significant effects on household decision-making. Using the baseline OLS model, subsidy receipt shows a positive and significant effect on household consumption ($\beta = 0.214$, $p < 0.01$), implying that households receiving subsidies increase their consumption expenditure by approximately 21.4% relative to non-recipients, *ceteris paribus*. However, the effect on savings is smaller and only weakly significant ($\beta = 0.082$, $p < 0.10$), suggesting that most additional resources are allocated to immediate consumption rather than precautionary savings.

Tax incentives exhibit a different pattern. The estimated coefficient on savings is positive and statistically significant ($\beta = 0.176$, $p < 0.05$), indicating that households benefiting from tax relief tend to increase savings accumulation. The effect on consumption remains positive but more moderate ($\beta = 0.097$, $p < 0.05$). Regarding labor force participation, social assistance displays a slightly negative but statistically insignificant coefficient in the OLS model ($\beta = -0.041$, $p > 0.10$), suggesting no strong disincentive effect on labor supply at the aggregate level.

When applying the Fixed Effects model to control for unobserved household heterogeneity, the magnitude of the subsidy coefficient on consumption decreases ($\beta = 0.168$, $p < 0.05$), though it remains statistically significant. This indicates that part of the OLS estimate may reflect time-invariant household characteristics. Similarly, the positive impact of tax incentives on savings remains robust ($\beta = 0.149$, $p < 0.05$).

To address potential endogeneity particularly the possibility that households with higher expected consumption are more likely to receive certain incentives the study employs a Two-Stage Least Squares (2SLS) approach using policy eligibility criteria as instruments. The 2SLS results confirm the positive and significant effect of subsidies on consumption ($\beta = 0.231$, $p < 0.05$), with slightly larger magnitudes compared to Fixed Effects estimates. Instrument validity

tests (relevance and overidentification tests) support the robustness of the instruments used.

Overall, the findings demonstrate that incentives significantly influence household consumption and savings decisions, with varying magnitudes depending on the type of incentive. The effects on labor force participation are relatively weaker, indicating that income-related incentives primarily affect allocation decisions rather than labor supply behavior.

3.3. Elasticity and Response Analysis

The elasticity analysis provides further insight into the magnitude of household responses to changes in prices and incentives. The estimated price elasticity of consumption is -0.72 , indicating that a 1% increase in essential goods prices leads to a 0.72% decrease in household consumption. This value suggests that household consumption is relatively inelastic, though still responsive to price changes.

The elasticity of consumption with respect to subsidies is estimated at 0.38, meaning that a 1% increase in subsidy value increases household consumption by 0.38%. This indicates a moderately responsive behavior. In contrast, the elasticity of savings with respect to tax incentives is higher, at 0.54, suggesting that savings behavior is more responsive to fiscal incentives than consumption is to subsidies.

When disaggregated by income group, significant differences emerge. Low-income households exhibit a higher consumption elasticity with respect to subsidies (0.61), reflecting stronger dependence on external support. However, their savings elasticity remains low (0.21), indicating limited capacity to accumulate savings even when incentives increase. Middle-income households show moderate elasticities across both consumption and savings, while high-income households demonstrate relatively lower consumption elasticity (0.29) but higher savings elasticity (0.73), suggesting that additional incentives are more likely to be allocated toward asset accumulation rather than immediate spending.

Overall, the findings indicate that household responses to incentives are generally inelastic to moderately elastic, with substantial heterogeneity across income groups. This variation highlights the importance of income level in shaping the effectiveness of policy-based incentives.

3.4. Diagnostic Tests and Robustness

To ensure the reliability of the estimation results, several diagnostic and robustness tests were conducted. The heteroskedasticity test using the Breusch–Pagan procedure indicates the presence of heteroskedasticity in the OLS model ($p < 0.05$). Therefore, robust standard errors were applied to correct for biased variance

estimates. After correction, the significance levels of the main coefficients remained stable.

The Wooldridge test for autocorrelation in panel data shows no strong evidence of serial correlation ($p > 0.10$), suggesting that the error terms are not systematically correlated over time.

For the 2SLS estimation, instrument validity was assessed through the first-stage F-statistic and overidentification tests. The first-stage F-statistic exceeds the conventional threshold of 10, indicating that the instruments are sufficiently relevant. The Hansen overidentification test fails to reject the null hypothesis ($p > 0.10$), supporting the validity and exogeneity of the instruments used.

Parameter stability tests across different model specifications (OLS, Fixed Effects, and 2SLS) reveal consistent signs and similar magnitudes for the key coefficients. Although slight differences in magnitude appear particularly between OLS and Fixed Effects the overall direction and statistical significance of the incentive variables remain robust. This consistency strengthens confidence in the empirical findings and suggests that the estimated relationships are not driven by model specification bias.

3.5. Consistency with Economic Theory

Overall, the findings support rational choice theory, which assumes that households allocate resources to maximize utility. The positive and significant effect of subsidies on consumption, as well as the positive impact of tax incentives on savings, aligns with microeconomic predictions that changes in income and relative prices influence household allocation decisions and intertemporal choices.

The results also reflect both income and substitution effects. The negative price elasticity of consumption indicates that when the prices of essential goods increase, households reduce consumption or substitute toward relatively cheaper alternatives, demonstrating the substitution effect. At the same time, subsidies increase purchasing power, generating an income effect particularly among low-income households, which tend to allocate additional resources primarily to immediate consumption.

However, the study also reveals indications of behavior that is not fully consistent with the classical rational model. Among low-income households, additional income from social assistance does not significantly increase savings, even though permanent income theory would predict a more balanced adjustment between consumption and saving. This pattern suggests the presence of behavioral biases such as present bias, limited long-term planning, or liquidity constraints that restrict optimal intertemporal allocation. Therefore, while the results broadly support traditional economic theory, they also highlight the relevance of behavioral

economics in explaining household responses to economic incentives.

3.6. Interpretation of Household Responses

The findings suggest that certain incentives are more influential than others due to differences in immediacy, visibility, and liquidity effects. Subsidies and direct transfers have a stronger impact on consumption because they directly increase disposable income and are immediately accessible for spending. In contrast, tax incentives tend to have a more gradual and forward-looking effect, which explains their stronger association with savings rather than short-term consumption. This indicates that the design and delivery mechanism of incentives play a crucial role in shaping household responses.

In terms of behavioral adjustments, the response of consumption is significantly stronger than that of labor force participation. While income-related incentives clearly alter spending and saving decisions, their effect on labor supply is relatively weak and statistically insignificant in most specifications. This suggests that households primarily adjust allocation decisions (how income is spent or saved) rather than participation decisions (whether to work). Labor supply appears to be influenced more by structural factors such as job availability, skill levels, and demographic constraints than by short-term financial incentives.

Socio-economic characteristics further explain heterogeneity in responses. Low-income households show stronger consumption responses due to tighter budget constraints and higher marginal propensity to consume. Middle- and high-income households, with greater financial flexibility, respond more strongly through increased savings or small-scale investments. Education level also plays a role, as households with higher education tend to allocate incentives more strategically toward long-term financial planning. Overall, these findings demonstrate that household responses to incentives are shaped not only by economic theory but also by structural and demographic conditions.

3.7. Comparison with Previous Studies

The findings of this study are broadly consistent with previous empirical research showing that direct subsidies and social transfers increase household consumption, particularly among low-income groups with high marginal propensities to consume. Similar to earlier studies, the results confirm that fiscal incentives such as tax reductions tend to have a stronger impact on savings and asset accumulation rather than immediate consumption.

However, this study differs from some prior research that reports significant negative effects of social assistance on labor supply. In contrast, the present findings indicate that the impact on labor force

participation is relatively weak and statistically insignificant. One possible explanation is differences in program design, conditionality, and labor market structure. In contexts where assistance is modest or conditional, it may not generate strong work disincentives. Additionally, variations in data structure, estimation techniques (e.g., the use of panel data and 2SLS), and control variables may account for differences in magnitude and significance.

The main contribution and novelty of this research lie in its comprehensive approach. Unlike many previous studies that focus on a single type of incentive or a single household decision (e.g., consumption only), this study simultaneously examines consumption, savings, and labor participation within an integrated econometric framework. Furthermore, it combines rational economic theory with behavioral considerations to interpret heterogeneous household responses. This integrative perspective provides a more holistic understanding of how incentives shape household economic behavior and offers stronger policy relevance.

3.8. Policy Implications

The empirical findings indicate that economic incentives are effective in influencing household allocation decisions, particularly consumption and savings behavior. Subsidies and direct transfers are effective tools for stabilizing consumption, especially among low-income households facing price shocks. However, their impact on labor supply appears limited, suggesting that income-based incentives alone may not be sufficient to significantly alter participation decisions in the labor market.

In the short term, subsidies and social assistance programs help maintain purchasing power and reduce vulnerability to inflationary pressures. This contributes to consumption smoothing and immediate welfare improvement. In the long term, however, the effectiveness of incentives depends on their structure. Tax incentives demonstrate greater potential to encourage savings and asset accumulation, which may enhance financial resilience and long-run economic stability. Without complementary measures, repeated consumption-oriented transfers may have limited long-term developmental impact.

Based on these findings, policy design should consider targeting and differentiation. For low-income households, well-targeted subsidies remain crucial for welfare protection, but integrating savings-linked mechanisms or conditional components could promote long-term financial planning. For middle- and higher-income groups, fiscal incentives that encourage investment, entrepreneurship, or human capital development may generate stronger long-run benefits. Overall, incentive-based policies should be carefully calibrated to household characteristics to maximize both

short-term welfare gains and long-term economic sustainability.

4. Conclusion

This study concludes that economic incentives play a significant role in shaping household economic decision-making, particularly in consumption and savings behavior. Empirical results show that subsidies and social transfers effectively increase short-term consumption, especially among low-income households, while tax incentives are more strongly associated with increased savings and asset accumulation. The impact on labor force participation, however, appears relatively weak, indicating that labor supply decisions are influenced more by structural and demographic factors than by short-term financial incentives.

Overall, the findings support rational choice theory through the presence of income and substitution effects, while also revealing behavioral patterns such as limited savings responses among low-income households. The study highlights the importance of designing well-targeted and differentiated incentive policies to ensure both immediate welfare improvements and long-term economic resilience.

References

- Agarwal, S., & Mannil, N. (2023). Household financial decision making. In G. Hilary & D. McLean (Eds.), *Handbook of Financial Decision Making* (pp. 375–410). Edward Elgar Publishing.
<https://doi.org/10.4337/9781802204179.00033>
- Alshurideh, M. T., Alzoubi, H. M., Al Kurdi, B., Hamadneh, S., Ahmed, G., Al-Sulaiti, K., Bataineh, A. Q., Alquqa, E. K., & Ozturk, I. (2025). Consumer and Economic Influences on Electric Vehicle Adoption: The Mediating Role of Attitudes and the Moderating Effect of Demographics. *International Journal of Energy Economics and Policy*, 15(3), 214–229.
<https://doi.org/10.32479/ijeep.19313>
- Aoujil, Z., Hanine, M., Flores, E. S., Samad, Md. A., & Ashraf, I. (2023). Artificial Intelligence and Behavioral Economics: A Bibliographic Analysis of Research Field. *IEEE Access*, 11, 139367–139394.
<https://doi.org/10.1109/ACCESS.2023.3339778>
- Böhmecke-Schwafert, M., Wehinger, M., & Teigland, R. (2022). Blockchain for the circular economy: Theorizing blockchain's role in the transition to a circular economy through an empirical investigation. *Business Strategy and the Environment*, 31(8), 3786–3801.
<https://doi.org/10.1002/bse.3032>
- Chiappori, P.-A., Giménez-Nadal, J. I., Molina, J. A., & Velilla, J. (2022). Household Labor Supply:

- Collective Evidence in Developed Countries. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics* (pp. 1–28). Springer International Publishing. https://doi.org/10.1007/978-3-319-57365-6_271-1
- Duncan, N. G. (2025). Home Ownership and Social Theory. In J. S. Duncan, *Housing and Identity* (1st ed., pp. 98–134). Routledge. <https://doi.org/10.4324/9781003670391-5>
- Frish, R. (2024). Consumption and the permanent income of households. *Research in Economics*, 78(4), 101011. <https://doi.org/10.1016/j.rie.2024.101011>
- Fu, W., Jiang, Q., Ni, J., & Xue, Y. (2025). Digital Transitions and Sustainable Futures: Family Structure's Impact on Chinese Consumer Saving Choices and Marketing Implications. *Sustainability*, 17(13), 6070. <https://doi.org/10.3390/su17136070>
- Gilead, T., & Dishon, G. (2022). Rethinking future uncertainty in the shadow of COVID 19: Education, change, complexity and adaptability. *Educational Philosophy and Theory*, 54(6), 822–833. <https://doi.org/10.1080/00131857.2021.1920395>
- Gottschalk, F., Hafner, M., & Trinkner, U. (2022). Net Costs of USP's Service Provision: Challenges for the Coming Decade. In P. L. Parcu, T. J. Brennan, & V. Glass (Eds.), *The Economics of the Postal and Delivery Sector* (pp. 251–267). Springer International Publishing. https://doi.org/10.1007/978-3-030-82692-5_17
- Hanlon, M., Yeung, K., & Zuo, L. (2022). Behavioral Economics of Accounting: A Review of Archival Research on Individual Decision Makers*. *Contemporary Accounting Research*, 39(2), 1150–1214. <https://doi.org/10.1111/1911-3846.12739>
- Jephta Mensah Kwakye, Darlington Eze Ekechukwu, & Olorunshogo Benjamin Ogundipe. (2024). Systematic review of the economic impacts of bioenergy on agricultural markets. *International Journal of Advanced Economics*, 6(7), 306–318. <https://doi.org/10.51594/ijae.v6i7.1342>
- Katnic, I., Katnic, M., Orlandic, M., Radunovic, M., & Mugosa, I. (2024). Understanding the Role of Financial Literacy in Enhancing Economic Stability and Resilience in Montenegro: A Data-Driven Approach. *Sustainability*, 16(24), 11065. <https://doi.org/10.3390/su162411065>
- Khrais, L. T., & Gaborri, D. (2023). The effects of social media digital channels on marketing and expanding the industry of e-commerce within digital world. *Periodicals of Engineering and Natural Sciences (PEN)*, 11(5), 64–75. <https://doi.org/10.21533/pen.v11.i5.185>
- Kobakhidze, M. N., & Šťastný, V. (2023). Theoretical Perspectives on the Role of Parents in Shadow Education. *Studia Paedagogica*, 28(2), 73–95. <https://doi.org/10.5817/SP2023-2-4>
- Leyer, M., & Freytag-Leyer, B. (2025). Understanding the cognitive reasons why household members participate in household decision-making. *The Bottom Line*. <https://doi.org/10.1108/BL-07-2024-0087>
- Li, W., Ping, W., Wang, J., Zhang, B., School of Statistics and Data Science, Jiangxi University of Finance and Economics, Nanchang, Jiangxi 330013, China, Nanchang University, Nanchang, Jiangxi 330031, China, & Key Laboratory of Financial and Economic Data Science, Jiangxi University of Finance and Economics, Nanchang, Jiangxi 330013, China. (2025). How conditional and unconditional cash transfers affect rural household economic resilience: Evidence from the China Household Finance Survey. *Urban Resilience and Sustainability*, 3(3), 172–194. <https://doi.org/10.3934/urs.2025008>
- McLaren, H. J., Qonitah, N., & Widianingsih, I. (2022). Incentive-based Social Welfare Administration in Indonesia: Implications for sustainable development in women's and children's protection. *International Social Work*, 65(3), 510–524. <https://doi.org/10.1177/0020872820930265>
- Priyatna, H. N., Suryadi, I., & Ersanti. (2025). Facing Global Inflation: Economic Strategies to Strengthen People's Purchasing Power. *MSJ: Majority Science Journal*, 3(1), 73–81. <https://doi.org/10.61942/msj.v3i1.312>
- Rasyid, M., Kristina, A., Wantara, P., & Jumali, M. A. (2023). Household Participations and Sustainable Development Programs: Social Impact of Government Assistance in Indonesia. *International Journal of Sustainable Development and Planning*, 18(6), 1725–1732. <https://doi.org/10.18280/ijstdp.180608>
- Satterfield, T., Nawaz, S., & St-Laurent, G. P. (2023). Exploring public acceptability of direct air carbon capture with storage: Climate urgency, moral hazards and perceptions of the 'whole versus the parts.' *Climatic Change*, 176(2), 14. <https://doi.org/10.1007/s10584-023-03483-7>
- Sonjaya, Y., & Noch, M. Y. (2024). Analysis of the Effectiveness of Tax Incentives on Energy Sector Investments. *Advances in Taxation Research*, 2(2). <https://doi.org/10.60079/atr.v2i2.308>