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Implications of VAT Increase and Global Price Volatility on Middle Class Consumption Behavior and Urban Inflation Rate in Central Java

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ABSTRACT

This study examines the implications of VAT increases and global price volatility on middle-class consumption behavior and the urban inflation rate in Central Java. Using a quantitative approach, data from 200 respondents were analyzed via Structural Equation Modeling - Partial Least Squares (SEM-PLS). The results reveal that VAT increases significantly influence both middle-class consumption patterns and urban inflation, with stronger effects compared to global price volatility. VAT adjustments impact household spending priorities and contribute to inflationary pressures in urban areas, while global price fluctuations moderately affect consumption behavior and inflation through external market dependencies. These findings underscore the need for balanced fiscal policies and strategies to manage external economic shocks to ensure urban economic stability and resilience.

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1. INTRODUCTION

Economic stability and the well-being of urban communities are increasingly shaped by the interplay of fiscal policies—particularly the Value Added Tax (VAT)—and global economic dynamics. VAT, a pivotal component of national fiscal frameworks, serves as a critical source of government revenue but often imposes a disproportionate burden on middle- and low-income households, making it regressive in nature [1]. This burden is further compounded by global price volatility—especially in energy, food, and raw materials—which amplifies inflationary pressures and alters consumer behavior in densely populated urban areas [2]. The transition from business tax to VAT can also influence income distribution, with evidence suggesting that urban areas gain more through income effects, while rural areas benefit through consumption effects—thus contributing to a narrowing of the urban–rural income gap [3]. In developing countries, VAT implementation has been associated with a 40–50% reduction in tax revenue instability, reinforcing the fiscal resilience of urban economies that are often more vulnerable to macroeconomic fluctuations [4]. However, as illustrated in Argentina, such fiscal mechanisms can have unintended regional spillover effects, negatively

impacting economic activity and welfare in urban areas, thereby underscoring the critical need for careful and context-sensitive policy design [5]. Collectively, these dynamics highlight the importance of integrated fiscal planning that accounts for both domestic tax structures and the influence of global economic trends on urban livelihoods.

Central Java, Indonesia's most populous province, provides a distinct context for examining the interplay between fiscal dynamics and external economic forces, particularly due to its substantial and economically active middle class. This demographic is highly influential in shaping urban consumption patterns and inflation trends, yet remains vulnerable to shifts in taxation policies and global market volatility, necessitating policies that can cushion economic strain while sustaining fiscal stability. The region's financial structure reveals underlying vulnerabilities, with liabilities surpassing assets and resulting in a net-borrowing position that heightens exposure to external risks, despite recent progress in reducing foreign liabilities (Darjana et al., 2019). Inflation has been shown to negatively impact per capita consumption expenditure in major cities, reflecting the acute sensitivity of households to price fluctuations; however, fiscal tools such as minimum wage increases and direct cash assistance (BLT) have proven effective in counterbalancing these pressures [6]. The expanding middle class in Central Java significantly contributes to economic growth and employment generation, affirming its central role in regional development [7]. Moreover, while government fiscal policies positively influence macroeconomic indicators like real GDRP, investment, and consumption, the manufacturing sector—despite its strategic importance—shows limited responsiveness to monetary interventions, pointing to the necessity of more targeted fiscal strategies for sectoral resilience [8]. Understanding these interconnected factors is essential for crafting effective, adaptive economic policies for Central Java's future stability and growth.

Previous studies have often analyzed the effects of Value Added Tax (VAT) increases and global price volatility in isolation, yet there remains a significant gap in understanding their combined impact on middle-class consumption behavior and urban inflation, particularly in economically diverse regions like Central Java. This study seeks to address that gap by examining how these two forces intersect to influence the purchasing power and spending patterns of the urban middle class. VAT increases, while aimed at enhancing state revenue, tend to elevate the prices of goods and services, thereby contributing to inflation and eroding the purchasing power of low- and middle-income groups [9]. In Indonesia, the planned VAT hike from 11% to 12% is expected to boost government income, but also carries the risk of slowing economic activity through inflationary pressures [10]. Interestingly, consumer behavior in certain areas like Madiun City appears less sensitive to VAT increases, with staple food price fluctuations exerting a more dominant influence [11]. The role of global price volatility is also critical; rising prices of essential goods significantly affect consumption decisions, as evidenced by reduced consumer spending in response to staple food inflation in Madiun [11]. Similarly, in Central Java, inflation has been shown to lower per capita consumption expenditure, reflecting the region's acute vulnerability to price shocks [6]. Given that household consumption constitutes a substantial portion of Central Java's GDP, especially in its urban centers, the interaction between VAT policies and global market dynamics becomes a crucial determinant of regional economic stability [6]. By focusing on this intersection, the study aims to offer valuable insights for policymakers in crafting responsive and equitable economic strategies.

This study adopts a quantitative approach by utilizing survey data gathered from 200 middle-class respondents residing in urban areas of Central Java. To assess perceptions and behaviors, a Likert scale ranging from 1 to 5 was employed, and the collected data were subsequently analyzed using Structural Equation Modeling - Partial

Least Squares (SEM-PLS). The research is designed to answer three key questions: first, how VAT increases influence middle-class consumption behavior in urban Central Java; second, what effects global price volatility has on consumption patterns and inflation rates; and third, how the combined influence of these factors contributes to the dynamics of urban inflation.

2. LITERATURE REVIEW

2.1 Value Added Tax (VAT) and Consumption Behavior

The Value Added Tax (VAT) serves as a pivotal fiscal instrument for developing economies by providing a stable and broad-based revenue stream with minimal economic distortions. Its ability to capture value at each stage of production makes it a reliable source of government income, typically contributing 5–10% of a country's GDP [12]. VAT implementation has been shown to significantly reduce tax revenue instability—by as much as 40–50%—in developing countries compared to those without VAT systems, although its stabilizing effect diminishes in more advanced economies with greater trade openness [4]. Moreover, VAT systems tend to outperform pre-existing sales taxes in revenue generation, especially when complemented by open trade policies [13]. Despite these fiscal advantages, VAT poses challenges for middle-income households, particularly in terms of reduced disposable income and altered consumption behavior. VAT increases often lead to a reallocation of household budgets toward essential goods, as non-essential spending is curtailed, disproportionately affecting middle-class households with limited financial flexibility [14]. These dynamics underscore the need for careful policy calibration to balance revenue objectives with socioeconomic equity, particularly in diverse and economically stratified regions.

2.2 Global Price Volatility and Economic Stability

Price volatility in global commodities such as oil, food, and industrial raw materials poses substantial risks to economic stability, especially for import-dependent countries where such fluctuations can trigger inflationary pressures, undermine consumer confidence, and deepen socio-economic inequalities. Several key factors contribute to this volatility, including increased industrial activity and reduced interest rates in major economies, both of which tend to elevate raw material prices; notably, fluctuations in U.S. real interest rates have a significant impact on oil price volatility [15]. Additionally, global economic policy uncertainty is positively correlated with commodity price volatility, suggesting that political and economic instability can exacerbate market fluctuations [16]. In the agricultural sector, underinvestment, supply shocks, and financial speculation are major contributors to food price instability [17]. These dynamics have far-reaching economic consequences: rising prices in essential goods erode real income, particularly among low-income groups, thereby worsening inequality [17], while inflation induced by commodity shocks can alter household

spending behavior and weaken overall consumer confidence [18]. In more fragile economies, such as those in low-income countries, sharp food price hikes have even been linked to increased intra-state conflict, illustrating how economic disruption can spill over into political instability [19].

2.3 *Middle-Class Consumption Behavior*

The middle class plays a vital role in driving economic growth, largely through its consumption behavior and investment in human capital, both of which are fundamental to sustained development. Cross-country data affirm that a larger middle-class population correlates with higher levels of human capital investment, which enhances productivity and national prosperity [20]. In Indonesia, the expansion of the middle class has been associated with increased consumption, national economic growth, and a decline in unemployment rates, underscoring its strategic importance in the economy [7]. However, macroeconomic shocks—such as VAT increases and global price volatility—can disrupt the relatively stable consumption patterns of this demographic, triggering shifts in demand elasticity whereby spending becomes more focused on essential goods while luxury and discretionary purchases decline [21]. These disruptions are not purely financial; middle-income households often face heightened psychological stress during periods of economic uncertainty, which further influences their consumption decisions [21]. On a global scale, the rise of the middle class in emerging economies such as China and India introduces significant new opportunities for growth, as their collective purchasing power becomes a driving force for both domestic economies and international markets, particularly for multinationals able to cater to their evolving needs [21].

2.4 *Urban Inflation Dynamics*

Urban inflation rates are shaped by a combination of domestic fiscal policies and external global factors, with middle-income groups in urban settings being particularly vulnerable due to their fixed expenditures on essentials such as housing, transportation, and utilities. Increases in the Value Added Tax (VAT), as noted by [22], can trigger short-term inflationary spikes, especially in urban areas where consumption patterns are diverse and sensitive to price changes. This inflationary effect is further exacerbated by global price volatility—particularly in oil and food commodities—which can lead to cost-push inflation and broader economic disruption. Oil price shocks have been found to significantly influence inflation, contributing approximately 9% to inflation variance between 2001 and 2022 in globally integrated economies, a sharp rise from 4% prior to 2000 [23], while food price increases have similarly inflationary effects in emerging economies, with notable second-round impacts [24]. These combined pressures intensify the inflation burden in urban environments, leading to cascading effects across other economic sectors, as highlighted by [25]. Domestically, VAT-driven

inflation is particularly impactful in cities due to the broader range of taxed goods and services [26], while income-based distributional effects show that inflation hits middle- and low-income households hardest, prompting the need for targeted income and price support mechanisms [27].

2.5 *Research Gaps and Contributions*

While extensive research exists on the individual effects of VAT increases and global price volatility, there is limited understanding of their combined impact on middle-class consumption behavior and urban inflation. Furthermore, existing studies often overlook the unique socio-economic and cultural context of urban areas in developing economies like Indonesia. This study seeks to address these gaps by providing an integrated analysis of these factors, with a specific focus on the urban middle class in Central Java.

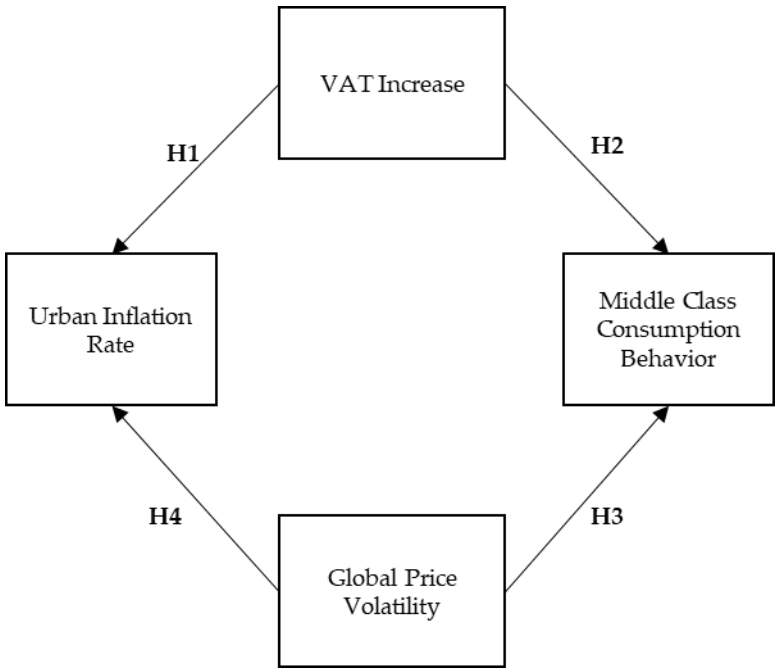

Figure 1. Conceptual Framework

3. METHODS

This study utilizes a quantitative research approach to investigate the combined effects of Value-Added Tax (VAT) increases and global price volatility on middle-class consumption behavior and urban inflation in Central Java. Adopting a causal-explanatory design, the research aims to identify and quantify the relationships between these variables using Structural Equation Modeling - Partial Least Squares (SEM-PLS). The target population comprises middle-class households in urban areas of Central Java. A total of 200 respondents were selected through stratified random sampling to ensure a representative sample from various urban districts. The selection focused on middle-income earners, as defined by Indonesia's income classification, to capture the group most susceptible to changes in VAT and global economic fluctuations.

Data collection employed a structured questionnaire distributed both online and in person. The instrument consisted of four sections: demographic information (e.g., age, gender, income, and household size), perceptions of VAT impacts on household expenses, awareness of global

price volatility and its perceived effects, and indicators of changes in consumption behavior and perceptions of urban inflation. Respondents answered using a five-point Likert scale. A pilot test with 30 participants was conducted to ensure the reliability and validity of the questionnaire. Cronbach's Alpha values exceeding 0.7 confirmed acceptable internal consistency, while construct validity was evaluated using factor loadings to verify that each item corresponded appropriately to its designated construct.

The data analysis employed SEM-PLS to explore the complex interrelationships among the studied variables. The process began with descriptive statistics to summarize respondent demographics and response trends. Reliability and validity tests were then performed, including assessments of average variance extracted (AVE) and discriminant validity. The structural model was tested through the examination of path coefficients, t-statistics, and p-values to assess both direct and indirect effects. Finally, model fit was evaluated using goodness-of-fit metrics such as the Standardized Root Mean Square Residual (SRMR), ensuring the robustness and explanatory power of the model.

4. RESULTS AND DISCUSSION

4.1 Demographic Characteristics of Respondents

The demographic characteristics of the 200 respondents reveal a balanced and diverse sample. In terms of gender, 56% were male and 44% female. The majority fell within the 35–44 age group (40%), followed by 25–34 years (35%) and those aged 45 and above (25%). Educational attainment was predominantly at the undergraduate level (60%), with equal proportions holding a high school diploma or postgraduate degree (20% each). Most respondents reported a monthly income between IDR 10–20 million (50%), while 30% earned IDR 5–10 million and 20% earned above IDR 20 million. Employment sectors were led by the private sector (45%), followed by entrepreneurs (30%), government employees (15%), and others (10%). Regarding household size, 45% had 3–4 members, 40% had 5 or more, and 15% had 1–2 members. Geographically, 50% lived in metropolitan cities, 40% in suburban areas, and 10% in semi-urban regions. This demographic profile underscores the study's emphasis on urban middle-class households with varied socioeconomic backgrounds.

The descriptive statistics for the four main variables (VAT Impact, Global Price Volatility, Consumption Behavior, and Urban Inflation) are summarized below. Each variable was measured on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Table 1. Descriptive Statistics

Variable	Mean	Standard Deviation	Min	Max
VAT Impact	4.20	0.78	3.00	5.00
Global Price Volatility	4.10	0.78	2.50	5.00
Consumption Behavior	4.15	0.77	3.00	5.00
Urban Inflation	4.40	0.72	3.00	5.00

The summary of findings indicates that respondents perceived significant impacts across all measured variables. The effect of VAT increases received a high mean score of 4.20 with low variability, suggesting strong and consistent agreement regarding its burden on household finances. Global price volatility was also perceived as impactful, with a mean of 4.10 and slightly more varied responses. Changes in consumption behavior were evident, reflected by a mean of 4.15, indicating that respondents had adjusted their spending habits in response to external economic pressures. Urban inflation emerged as the most strongly agreed-upon issue, with the highest mean score of 4.40, highlighting widespread concern about rising living costs in urban areas.

4.2 Measurement Model Evaluation

The measurement model was evaluated to ensure the reliability and validity of the constructs using four key criteria: factor loadings, Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Each indicator was required to have a factor loading of at least 0.70 to confirm its significance within the construct. Cronbach's Alpha values needed to exceed 0.70 to demonstrate acceptable internal consistency, while Composite Reliability values of 0.70 or higher indicated overall reliability of the constructs. Lastly, AVE values were expected to be 0.50 or above to establish adequate convergent validity, ensuring that each construct captured sufficient variance from its indicators.

Table 2. Measurement Model Assessment

Variable	Code	Loading Factor	Cronbach's Alpha	Composite Reliability	Average Variant Extracted
VAT Increase	VIN.1	0.874	0.913	0.936	0.746
	VIN.2	0.934			
	VIN.3	0.869			
	VIN.4	0.897			
	VIN.5	0.731			
Global Price Volatility	GPV.1	0.898	0.842	0.894	0.679
	GPV.2	0.869			
	GPV.3	0.749			
	GPV.4	0.770			
Middle Class Consumption Behavior	MCC.1	0.831	0.895	0.922	0.704
	MCC.2	0.838			
	MCC.3	0.810			
	MCC.4	0.870			
	MCC.5	0.845			
Urban Inflation Rate	UIR.1	0.708	0.840	0.878	0.546
	UIR.2	0.753			
	UIR.3	0.777			
	UIR.4	0.739			
	UIR.5	0.728			
	UIR.6	0.729			

Source: Data Processing Results (2025)

The assessment of the measurement model confirms that all four constructs—VAT Increase (VIN), Global Price Volatility (GPV), Middle-Class Consumption Behavior (MCC), and Urban Inflation Rate (UIR)—demonstrate strong reliability and validity. For the VAT Increase construct, all factor loadings ranged from 0.731 to 0.934, with Cronbach's Alpha at 0.913, CR at 0.936, and AVE at 0.746, indicating excellent measurement properties. Similarly, the Global Price Volatility construct showed factor loadings between 0.749 and 0.898, Cronbach's Alpha of 0.842, CR of 0.894, and AVE of 0.679, all surpassing standard thresholds. The Middle-Class Consumption Behavior construct exhibited factor loadings from 0.810 to 0.870, Cronbach's Alpha of 0.895, CR of 0.922, and AVE of 0.704, confirming high reliability and validity. Lastly, the Urban Inflation Rate construct achieved factor loadings between 0.708 and 0.777, Cronbach's Alpha of 0.840, CR of 0.878, and AVE of 0.546, meeting all required benchmarks. These results affirm that each construct is both statistically sound and appropriate for further structural model analysis.

Discriminant validity was assessed using the Fornell-Larcker Criterion, which compares the square root of the Average Variance Extracted (AVE) for each construct to the inter-construct correlations. Discriminant

validity is achieved if the square root of the AVE for each construct (diagonal values) is greater than the correlations with other constructs (off-diagonal values).

Table 3. Discriminant Validity

	GPV	MCC	UIR	VIN
Global Price Volatility	0.824			
Middle Class Consumption Behavior	0.732	0.839		
Urban Inflation Rate	0.619	0.667	0.739	
VAT Increase	0.784	0.790	0.628	0.864

Source: Data Processing Results (2025)

The interpretation of discriminant validity is based on comparing the square root of the Average Variance Extracted (AVE) for each construct with the inter-construct correlations. The diagonal values—GPV (0.824), MCC (0.839), UIR (0.739), and VIN (0.864)—represent the square roots of their respective AVEs and are higher than the corresponding off-diagonal correlations, indicating that each construct is more strongly associated with its own indicators than with those of other constructs. Specifically, the Global Price Volatility (GPV) construct demonstrates discriminant validity as its square root of AVE (0.824) exceeds its correlations with MCC (0.732), UIR (0.619), and VIN (0.784). Likewise, the Middle-Class Consumption Behavior (MCC) construct's square root of AVE (0.839) is greater than its correlations with GPV (0.732), UIR (0.667), and VIN (0.790), affirming its discriminant validity. The Urban Inflation Rate (UIR) construct also shows discriminant validity, with a square root of AVE (0.739) surpassing its correlations with GPV (0.619), MCC (0.667), and VIN (0.628). Finally, VAT Increase (VIN) maintains discriminant validity with a square root of AVE (0.864) that exceeds its correlations with GPV (0.784), MCC (0.790), and UIR (0.628). These findings confirm that each construct is distinct and well-differentiated within the model.

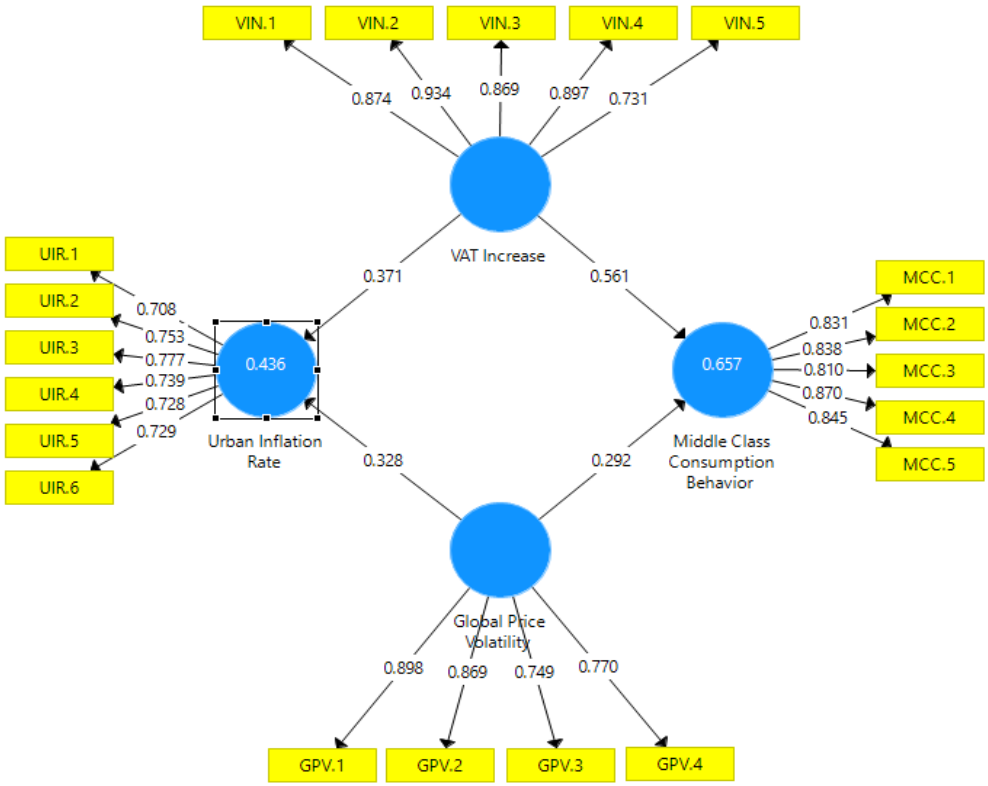

Figure 2. Model Results

Source: Data Processed by Researchers, 2025

4.3 Model Fit

The model fit indices for both the Saturated Model and Estimated Model were evaluated to assess how well the measurement and structural model align with the observed data. The indices include Standardized Root Mean Square Residual (SRMR), d_ULS, d_G, Chi-Square, and Normed Fit Index (NFI).

Table 4. Model Fit Results Test

	Saturated Model	Estimated Model
SRMR	0.122	0.121
d_ULS	3.118	3.097
d_G	1.061	1.098
Chi-Square	625.346	629.446
NFI	0.697	0.695

Source: Process Data Analysis (2025)

The model fit was evaluated using several indices, each offering insights into how well the proposed structural model aligns with the observed data. The Standardized Root Mean Square Residual (SRMR) values for both the saturated (0.122) and estimated models (0.121) exceed the commonly accepted threshold of 0.08, indicating discrepancies between observed and predicted correlations and suggesting room for model refinement. The d_ULS values—3.118 for the saturated model and 3.097 for the estimated model—point to a reasonable, though imperfect, model fit, as lower values generally signify better alignment. Similarly, the d_G values (1.061 for the saturated model and 1.098 for the estimated model) are relatively low and close to each other, suggesting that the model captures the data structure moderately well.

The Chi-Square values of 625.346 (saturated) and 629.446 (estimated) are moderately high, reflecting some degree of model misfit, though this index is highly sensitive to sample size and should be interpreted in context. Lastly, the Normed Fit Index (NFI) values—0.697 for the saturated model and 0.695 for the estimated model—fall below the ideal threshold of 0.90, indicating that while the model exhibits a moderate level of fit, it does not fully capture the complexity of the observed relationships.

Table 5. Coefficient Model

	R Square	Q2
Middle Class Consumption Behavior	0.657	0.651
Urban Inflation Rate	0.436	0.426

Source: Data Processing Results (2025)

The structural model's explanatory and predictive capabilities were evaluated using R Square (R^2) and Predictive Relevance (Q^2) values for the endogenous constructs—Middle-Class Consumption Behavior (MCC) and Urban Inflation Rate (UIR). The R^2 value for MCC was 0.657, indicating that 65.7% of its variance is explained by VAT Increase and Global Price Volatility, reflecting moderate to strong explanatory power. Meanwhile, the R^2 value for UIR stood at 0.436, suggesting a moderate level of explanatory power. In terms of predictive relevance, the Q^2 value for MCC was 0.651, indicating excellent predictive accuracy, while UIR had a Q^2 value of 0.426, reflecting moderate to high predictive relevance. These results confirm that the model not only explains a significant portion of the variation in the dependent variables but also possesses strong predictive capability, particularly for middle-class consumption behavior, and reasonably accurate predictive power for urban inflation rates.

4.4 Hypothesis Testing

Hypothesis testing was conducted to evaluate the relationships between Global Price Volatility (GPV), VAT Increase (VIN), Middle-Class Consumption Behavior (MCC), and Urban Inflation Rate (UIR). The assessment is based on the path coefficients (Original Sample, O), standard errors (Standard Deviation, STDEV), t-statistics, and p-values. Results are considered significant if t-statistics > 1.96 (for a 95% confidence level) and p-values < 0.05.

Table 6. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
Global Price Volatility -> Middle Class Consumption Behavior	0.492	0.487	0.119	2.455	0.003
Global Price Volatility -> Urban Inflation Rate	0.628	0.628	0.131	5.514	0.002
VAT Increase -> Middle Class Consumption Behavior	0.861	0.868	0.116	6.853	0.000
VAT Increase -> Urban Inflation Rate	0.671	0.679	0.122	5.049	0.001

Source: Process Data Analysis (2025)

The structural model results reveal significant and positive relationships among the key variables. Global Price Volatility has a moderate positive impact on Middle-Class Consumption Behavior, with a path coefficient of 0.492, t-statistic of 2.455, and a p-value of 0.003, indicating a statistically significant effect. It also exerts a strong influence on the Urban Inflation Rate, evidenced by a path coefficient of 0.628, t-

statistic of 5.514, and p-value of 0.002, highlighting its substantial contribution to inflationary trends in urban areas. Similarly, VAT Increase shows a very strong positive relationship with Middle-Class Consumption Behavior, with a path coefficient of 0.861, a t-statistic of 6.853, and a highly significant p-value of 0.000, indicating that changes in VAT policy play a dominant role in shaping consumption patterns. Furthermore, VAT Increase also significantly impacts the Urban Inflation Rate, as shown by a path coefficient of 0.671, t-statistic of 5.049, and p-value of 0.001, confirming its role as a major determinant of inflation in urban contexts. These findings underscore the crucial influence of both global and domestic economic factors on consumer behavior and inflation.

Discussion

The findings of this study provide a comprehensive understanding of how VAT Increase (VIN) and Global Price Volatility (GPV) influence Middle-Class Consumption Behavior (MCC) and the Urban Inflation Rate (UIR).

1) VAT Increase and Its Implications

The results demonstrate that Value Added Tax (VAT) increases have a strong and statistically significant impact on both middle-class consumption behavior and urban inflation rates. VAT hikes lead to notable changes in the spending patterns of middle-class consumers, reducing discretionary expenditures as households adjust their budgets to accommodate higher taxes [1], [28]. Given the regressive nature of VAT, its burden falls more heavily on middle- and low-income groups, highlighting the need for targeted relief measures such as subsidies or tax credits [29]. These behavioral shifts underscore the importance of designing nuanced fiscal policies that account for socioeconomic disparities, especially in economies where consumer spending is a primary growth driver [1].

In parallel, VAT increases are a significant contributor to urban inflation. The cascading effect of higher taxes on goods and services exerts upward pressure on prices, a condition that is especially acute in urban areas already grappling with high living costs [30], [31]. The inflationary consequences of VAT hikes necessitate timely policy interventions to buffer vulnerable populations—particularly through mechanisms like subsidies for essential goods or targeted tax credits [30]. Policymakers must carefully balance the objectives of revenue generation with the potential inflationary impact of tax policy, ensuring that the pursuit of fiscal sustainability does not disproportionately compromise the economic stability of urban households [1], [31].

2) Global Price Volatility and Its Effects

The study confirms that Global Price Volatility (GPV) significantly influences both middle-class consumption behavior and urban inflation rates, albeit with varying intensities. Global price fluctuations moderately affect middle-class consumption patterns, indicating the sensitivity of households to external economic conditions, particularly in economies integrated into global supply chains. As prices for essential commodities such as fuel and food rise, financial strain on households increases, leading to adjustments in consumption priorities [32]. Evidence from India shows that global commodity price shocks can notably reduce household consumption, with lower-income groups bearing the brunt of rising food prices [32]. This underscores the need for responsive social protection and fiscal strategies to safeguard consumption stability amid external shocks.

Furthermore, the strong correlation between GPV and the Urban Inflation Rate (UIR) highlights the vulnerability of urban economies to international price fluctuations. Urban areas, which are highly dependent on imported goods and exposed to global markets, are particularly susceptible to the transmission of price shocks, thereby exacerbating inflationary pressures [33], [34]. In China, for instance, volatility in major

global commodity prices has been shown to disrupt domestic price levels and threaten macroeconomic stability [33]. Additionally, the responsiveness of household consumption to exchange rate fluctuations reflects the critical role of global value chains in transmitting external economic shocks into domestic inflation dynamics [35]. These findings emphasize the importance of strengthening economic resilience through strategies such as exchange rate stabilization, supply chain diversification, and proactive fiscal measures to buffer urban economies from global volatility.

3) Policy Implications

To support economic stability and protect middle-class households, governments must carefully calibrate Value Added Tax (VAT) rates to prevent disproportionate burdens, particularly by adopting progressive taxation systems and implementing targeted relief measures that mitigate adverse effects on consumption and inflation. In managing inflation, especially in urban areas, it is essential to address both domestic fiscal pressures and global price volatility by investing in local production and reducing reliance on imports to enhance price stability. Furthermore, strengthening economic resilience through diversified trade partnerships, maintaining stable exchange rates, and reinforcing robust social safety nets will help shield urban economies from external shocks and support sustainable, equitable consumption patterns.

4) Theoretical Contributions

This study contributes to the literature on fiscal and economic policy by highlighting the interconnectedness of taxation, global economic conditions, and urban economic behavior. It extends prior research by providing empirical evidence of the relative impact of domestic and global factors on consumption and inflation in urban contexts.

5. CONCLUSION

The study underscores the significant influence of Value Added Tax (VAT) increases and global price volatility on middle-class consumption behavior and urban inflation in Central Java, with VAT adjustments showing a more pronounced effect by directly altering household spending patterns and intensifying inflation in urban areas, while global price volatility exerts a moderate yet notable impact, highlighting the vulnerability of urban economies to external shocks. Key insights from the analysis emphasize the necessity for policymakers to carefully balance VAT-driven revenue generation with targeted measures that mitigate its inflationary and behavioral consequences on middle-class households. Additionally, strategies such as promoting local production, stabilizing exchange rates, and diversifying trade policies are essential to buffer urban economies from global price fluctuations. The findings also reveal that domestic fiscal policies play a more dominant role in shaping urban economic outcomes than global factors, providing a valuable foundation for crafting more responsive and sustainable fiscal frameworks that enhance urban economic resilience and support long-term development goals.

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