

**MACROECONOMIC
DETERMINANTS AND SOCIO-
ECONOMIC DRIVERS OF
VEHICLE PURCHASE
PREFERENCES IN SRI LANKA:
A VECM-BASED ANALYSIS**

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Abstract

This study examines how economic policies influence the purchasing decisions of Sri Lankan consumers in the motor vehicle market. Monthly new vehicle registrations are used as a proxy for overall consumer demand. Data on vehicle registrations, along with monetary, fiscal, and socio-economic indicators from 2017 to 2023, were collected from multiple sources, including the Central Bank of Sri Lanka, Sri Lanka Customs, the Department of Motor Traffic, and the Sri Lanka Tourism Development Authority. The analysis employs several econometric techniques, including the Johansen cointegration approach, the Vector Error Correction Model (VECM), and Wald causality tests, to examine relationships among the variables. The findings indicate that consumer demand for motor vehicles is closely associated with key monetary policy variables, selected fiscal indicators, and socio-economic stability, particularly in the long run. Real interest rates, motor vehicle tax revenue, and the government wage index exert significant negative effects on vehicle demand in the long term. The VECM results show that deviations from long-run equilibrium adjust at a rate of 46.8 per cent per month, implying stabilisation within approximately 1.1 months. Overall, monetary factors exert a stronger influence on vehicle purchasing behaviour than fiscal policies, highlighting the importance of monetary stability and socio-economic improvements in policy formulation.

JEL: L62, E52, E62, E60

Keywords: Vehicle Purchase Preference, Monetary Policy, Fiscal Policy, Socio-Economic Stability

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INTRODUCTION

Individual decision-making plays a crucial role in shaping a country's economic performance as well as its social and political stability. Although governments design macroeconomic policies to regulate economic activity, their ultimate effectiveness depends on how individuals respond to these policies through their daily economic choices. Decisions related to consumption, saving, and investment determine whether policy objectives translate into real economic outcomes. As highlighted by Hart (1933) and later formalised in modern economic theory, macroeconomic stability cannot be achieved without understanding individual behavioural responses. Therefore, analysing consumer behaviour is essential for evaluating the true effectiveness of macroeconomic strategies.

Macroeconomic policy mainly consists of fiscal and monetary instruments used by governments to stabilise the economy and promote long-term growth. Fiscal policy refers to government decisions regarding taxation, public expenditure, and budgetary allocations, while monetary policy involves the regulation of money supply and interest rates by the central bank (Darrat, 1984). These policies aim to control inflation, stabilise prices and exchange rates, encourage economic activity, and manage economic fluctuations. Empirical studies in developing economies consistently show that both fiscal and monetary policies significantly influence aggregate demand and output stability (Jayarman, 1996; Richard, Muriu & Maturu, 2017).

Monetary policy, in particular, plays a central role in shaping consumer borrowing behaviour. Interest rate adjustments affect the cost of credit and liquidity in the economy, directly influencing household decisions related to durable goods consumption. Lower interest rates tend to stimulate borrowing and expenditure, while higher rates discourage credit-financed purchases (Shokofeh, 2006). Empirical evidence from developing countries confirms that restrictive monetary policy often leads to delayed or reduced consumption, whereas expansionary monetary policy encourages spending on high-value goods (Mahmood & Sial, 2018; Rakic & Radenovic, 2013). In Sri Lanka, maintaining price stability and controlling inflation remain key challenges for monetary authorities, particularly in the context of exchange rate volatility and fiscal pressures (Abeygunawardana, 2016).

Fiscal policy also has a substantial impact on consumer behaviour through changes in taxation and government expenditure. Tax policies influence disposable income and purchasing power, thereby affecting consumption decisions (Padda & Akram, 2009). Studies examining fiscal policy effectiveness in developing economies suggest that changes in indirect taxes and import duties can significantly alter consumption patterns, especially for imported goods (Canh, 2018). In Sri Lanka, fiscal measures such as revisions to excise duties, import tariffs, and value-added tax have been frequently used

to manage trade deficits and government revenue, often resulting in sharp changes in consumer demand for imported products.

The purchase of motor vehicles represents a particularly informative indicator of consumer behaviour. Vehicle purchases involve substantial financial commitments and are typically financed through loans, making them highly sensitive to interest rates, income expectations, and macroeconomic stability. Empirical studies across Asian economies show a strong relationship between automobile sales and macroeconomic variables such as interest rates, exchange rates, inflation, and income growth (Muhammad, Hussin & Razak, 2012; Muhammad et al., 2013). Similar evidence from advanced and emerging economies confirms that vehicle sales respond quickly to changes in monetary and fiscal policy conditions (Tarihi & Tarihi, 2018).

In Sri Lanka, the motor car market is especially remarkable due to the country's overdependence on imported vehicles. Exchange rate fluctuations directly affect vehicle prices, while fiscal measures such as import controls and excise duty revisions play a decisive role in shaping market outcomes. Periodic policy regimes—including import restrictions and tax increases—have resulted in substantial volatility in vehicle registrations, making this sector a valuable lens through which to examine consumer responses to macroeconomic policy changes. Moreover, motor vehicle imports have historically contributed notably to government tax revenue, enhancing the importance of this sector for policy analysis.

Consumer preferences, however, are shaped not only by economic policy but also by broader socio-economic and political factors. While early economic models treated preferences as stable and quantifiable, real-world decision-making is influenced by income uncertainty, access to information, cultural values, and expectations regarding political and economic stability (Gujarati & Porter, 2013). Political instability, sudden regulatory changes, or macroeconomic shocks tend to discourage long-term financial commitments, whereas stable environments promote confidence and investment in durable goods such as vehicles (Sekaran & Bougie, 2013; Shende, 2014).

Despite vast international research on the effectiveness of fiscal and monetary policy, there is little empirical evidence focusing specifically on Sri Lanka's consumer behaviour in the motor car market. Existing studies primarily examine aggregate output, inflation, or trade balances (Dharmadasa, 2015; Guechari, 2012), with relatively little attention given to behavioural responses reflected in vehicle purchasing decisions. This gap explains the need for a focused analysis connecting macroeconomic policy changes to noticeable consumer behaviour in Sri Lanka.

Accordingly, this study mainly focuses on measuring the effectiveness of macroeconomic policies in Sri Lanka in influencing individual preferences for vehicle purchases. By using vehicle registrations as an empirical proxy for consumer behaviour, the study aims to

determine whether households adjust their purchasing decisions in response to fiscal and monetary policy changes, exchange rate movements, and broader socio-economic conditions. Consequently, the research contributes to the existing literature by supplying market-specific behavioural proofs from a merging economy context.

LITERATURE REVIEW

The government depends on both fiscal and monetary policies to guide and stabilise the economy. These policies play an important role, not only on a short-term basis, but also in the strategies of development and growth on a long-term basis. A recent investigation by Canh (2018) examined data from 14 emerging economies and found that the fiscal policies have a positive and significant impact on the growth of the GDP. These findings agree with Keynesian economic theory, which proposes that the improvement in public spending or the reduction of taxes enhances the income of households, enhances consumption, and promotes overall economic growth (Rakic and Radenovic, 2013).

In a similar way, monetary policy significantly influences aggregate demand. A study conducted by Shokoofeh (2006) has proved that measures like the reduction of interest rates and the increase in the money supply reduce the costs of borrowing, encouraging individuals and businesses to spend more. This encourages household demand, improves investment, and boosts the competitiveness of exports. The behaviour of the exchange rate is another key area of investigation, closely linked to fiscal and monetary policies. The investigation of Guechari (2012) reveals a J-shaped pattern in Algeria's trade balance, where the depreciation of the currency initially impacts trade negatively, but eventually leads to better results as exports adjust and imports become pricier. This study mainly focused on the complexity of how the movements of the exchange rate influence the economy over time.

The current debate between Keynesians and Monetarists enriches this analysis. Whereas the Monetarists emphasise the importance of monetary factors in shaping economic outcomes, the Keynesians pointed out the immediate impact of fiscal interventions (Okerekoti and Egbunike, 2018). This multiplicity of perspectives expresses the compound nature of the effectiveness of macroeconomic policies.

Comparative studies among various countries have investigated the relative effect of fiscal and monetary policies, yielding varying results depending on institutional contexts, trade openness, and the political situations. For example, Darrat (1984) identified that both types of macroeconomic policies contribute to economic variations, but to various degrees among Latin American countries. On the other hand, Jayaraman (1996) and Chingarande (2015) found a positive relationship between expansionary monetary policy and economic growth, which suggests that monetary tools can have a more consistent impact on growth compared with fiscal measures. A study conducted in Sri Lanka by Dharmadasa (2015) finds that, although the impact of the monetary policy on the output of a country can be

weak, it remains more effective than fiscal measures in influencing economic behaviour. This expresses the importance of measurements like the interest rates for deciding the behaviour of the consumer and major purchase decisions.

When contemplating the consumer point of view, the purchase of a motor vehicle is an important decision affected by general economic conditions. Global studies on macroeconomic factors and vehicle sales have shown mixed results. A study based in Malaysia by Muhamad et al. (2013) suggested that short-term variations are stronger than the long-term impacts in promoting the sales of passenger vehicles. In contrast, Muhammad et al. (2012) observed that there is a strong and long-term relationship between macroeconomic indicators and passenger vehicle purchases in ASEAN countries, indicating a combined influence of the fiscal and monetary conditions on consumer behaviour.

Data from major automobile-producing countries such as China, the United States, Japan, and Germany highlight the strong influence of macroeconomic fundamentals on vehicle demand. Tarihi & Tarihi (2018) found that real GDP growth and fuel prices positively affect automobile demand, while inflation and exchange rate volatility have a negative impact. In the Sri Lankan context, these findings are particularly relevant, as the country relies heavily on imported vehicles and frequently experiences exchange rate fluctuations (Abeygunawardana, 2016). Rising household income and relatively stable fuel prices can encourage vehicle purchases, whereas periods of high inflation, currency depreciation, or tax changes increase uncertainty and may lead consumers to postpone or cancel high-value purchases (Padda & Akram, 2009; Canh, 2018). Therefore, the demand for vehicles in Sri Lanka is sensitive not only to income changes but also to price stability, exchange rate variations, and wider macroeconomic situations, strengthening the importance of both fiscal and monetary policy.

Beyond economic indicators, researchers have emphasised the importance of socio-economic and political stability in shaping consumer preferences. Factors such as institutional quality, political stability, cultural norms, and lifestyle play a crucial role in influencing preferences for durable goods, including automobiles (Sekaran & Bougie, 2013; Shende, 2014; Dharmadasa, 2015). This suggests that, although economic variables are significant, a stable social and political environment, along with reliable institutions, is equally essential for households to make important financial decisions, such as purchasing high-value assets like vehicles (Abeygunawardana, 2016; Canh, 2018).

The existing literature highlights that socio-economic and political stability play an important role in shaping consumer preferences, particularly for durable goods. Stable political conditions, reliable institutions, and a predictable social environment enhance consumer confidence and encourage long-term financial commitments, while instability increases uncertainty and discourages high-value purchases (Sekaran & Bougie, 2013; Shende, 2014; Canh, 2018).

Despite large-scale global research on the effects of macroeconomic policies on consumer behaviour, no previous studies have simultaneously investigated the combined effectiveness of fiscal policies, monetary policies, and socio-economic stability on vehicle purchase decisions in Sri Lanka. Most existing studies have relied on aggregate consumption, income, or vehicle sales data at a national level as proxies for consumer behaviour (Muhammad, Hussin & Razak, 2012; Tarihi & Tarihi, 2018; Padda & Akram, 2009). But these variables do not directly focus on individual preferences for durable goods. On the other hand, the current study uses the number of registered vehicles as a more accurate measurement of household preferences, as vehicle registration indicates actual purchase decisions and financial commitment by consumers. Accordingly, this study develops a model adapted to the Sri Lankan economic context. Using a Vector Error Correction Model (VECM), the analysis examines how monetary conditions, fiscal policy, and socio-economic stability collectively shape vehicle purchase preferences, capturing both long-term relationships and short-term adjustments, thereby providing a more comprehensive understanding of consumer behaviour.

MATERIALS AND METHODS

This research depends on monthly data from 2017 to 2023, observing monthly trends in their original, unmodified state. The study followed a quantitative and explanatory research design, chosen for its ability to clearly define and measure both independent and dependent variables. All data needed for this study were gathered from government institutions like Sri Lanka Customs, the Department of Motor Traffic, the Central Bank of Sri Lanka, and the Sri Lanka Tourism Development Authority.

To remove the problem of heteroscedasticity, some variables are converted into natural logarithms. Specifically, two key variables, individual preference and socio-economic stability, are measured in the thousands in their original form. Hence, these variables are transformed into natural logarithms.

Vehicle Purchase Preference (newly registered cars per month, log-transformed as LNIP)

The main focus of this study is individual preference for vehicles, which cannot be directly measured. This study uses the willingness of individuals to buy motor vehicles as a measurable proxy for these preferences. The number of monthly new car registrations recorded by the Department of Motor Traffic is used as the most suitable indicator of consumer preference for vehicles.

Real Interest Rate (91-day Treasury Bill Rate, R)

Sri Lanka's money market is largely influenced by Treasury bills with maturities of 91, 182, and 364 days. Following prior studies, the 91-day Treasury bill yield is selected as the representative short-term interest rate, as it reflects current monetary conditions and

borrowing costs in the economy (Central Bank of Sri Lanka, 2025; Dharmadasa, 2015; Adegoriola, 2018). This short-term rate directly affects the affordability of vehicle loans, making it a crucial variable for understanding how monetary policy influences household decisions regarding durable goods purchases, including automobiles.

Real Effective Exchange Rate (REER)

The Real Effective Exchange Rate (REER) is generally used to value a country's external competitiveness. It adjusts the trade-weighted nominal exchange rate to account for differences in price levels between Sri Lanka and its major trading partners (Central Bank of Sri Lanka, 2025). The REER records not only the changes in the exchange rate but also the relative inflation, and as a result, the REER produces a holistic estimation of the price of Sri Lankan goods and services in foreign markets, which can directly impact the prices of imported vehicles and consumer purchasing choices. REER influences import costs and consumer purchasing patterns, especially in the motor vehicle market, where many products are imported (Dharmadasa, 2015).

Tax Revenue from Motor Vehicles (TAX)

Taxation is a major source of revenue for the Sri Lankan government. This study aimed specifically at tax income created from motor vehicle imports, using data from the Department of Motor Traffic, Sri Lanka, as a key indicator of fiscal policy due to its direct impact on consumer buying decisions and the automobile market. The tax variable is expressed as a percentage, indicating the impact of fiscal measures targeting vehicle imports on consumer decisions (Richard & Maturu, 2017; Mabusi, 2016). For analytical clarity, the tax variable is expressed as a percentage calculated as:

$$Tax\ Rate = \frac{Motor\ vehicle\ tax\ import\ revenue\ from\ customs}{Total\ tax\ collected\ by\ customs} \times 100 \text{ ----- (01)}$$

This ratio reflects how strongly fiscal measures targeting vehicle imports influence consumer decisions.

Public Wage Index (Government Expenditure Proxy, GVT)

Government salaries and wages account for a significant portion of the country's recurrent expenditure. Changes in public sector wages are a key indicator of fiscal conditions and can influence consumer demand for high-value durable goods (Rakic & Radenovic, 2013). The study uses the nominal government wage index (base year 1978 = 100) from 2017 to 2023 as an indicator of wage growth and changes in government employees' purchasing power. While it does not directly measure overall government expenditure, higher wage levels can enhance the disposable income of public sector workers, which may in turn influence their ability to purchase vehicles and affect overall demand in the automobile market.

Socio-economic stability (proxied by monthly tourist arrivals, SE)

Socio-economic stability reflects a society's overall economic and social well-being, including factors such as income security, political stability, and social infrastructure (Sekaran & Bougie, 2013; Shende, 2014). In this study, monthly tourist arrivals are used as an indirect indicator of socio-economic stability, based on the assumption that countries with favourable economic and social conditions tend to attract more tourists (Abeygunawardana, 2016; Canh, 2018). Higher tourist inflows signal a stable and attractive environment, which may also correlate with greater consumer confidence and willingness to make high-value purchases, such as vehicles. Higher tourist arrivals indicate a stronger socio-economic climate, aligning with the study's goal of evaluating how societal conditions impact consumer preferences.

The variables and measures used in the paper are summarised in Table 1.

Table 1: Operationalisation Table

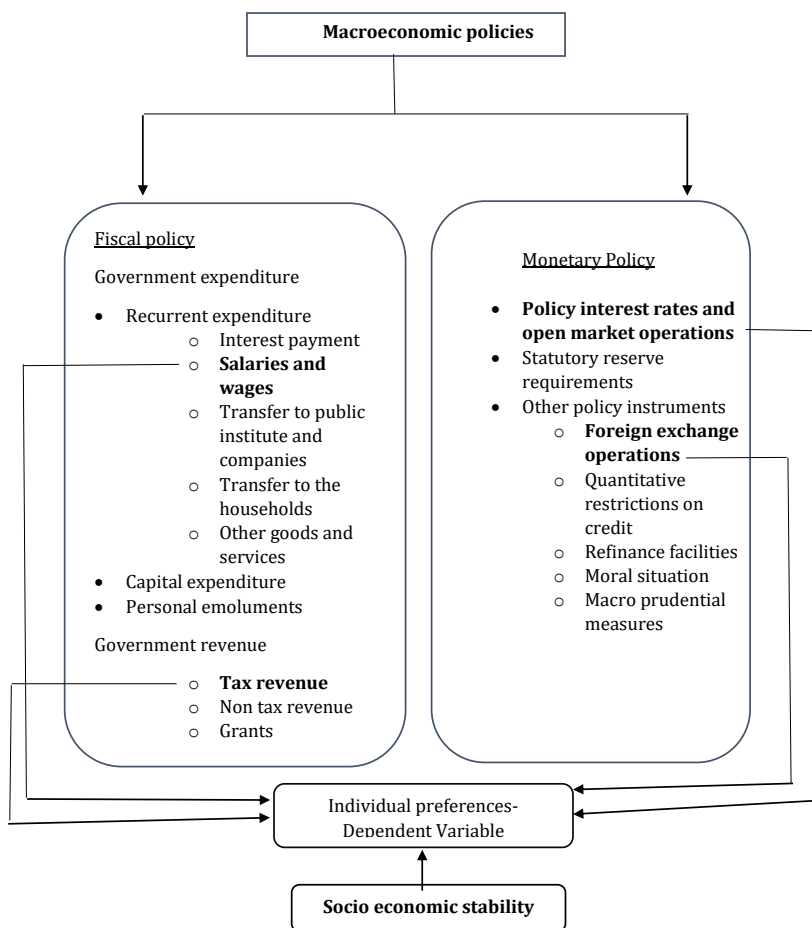
Variable	Measurement	Frequency
Individual Preference (IP)	Number of newly registered motor cars	Monthly
Interest Rate (R)	Yield rate from 91-day Treasury bills in the secondary market	Monthly
Exchange Rate (REER)	Real Effective Exchange Rate	Monthly
Tax Rate (TAX)	Customs tax rate on motor vehicle imports	Monthly
Government Expenditure (GVT)	Government employees' wage index (1978=100)	Monthly
Socio-economic Stability (SE)	Tourism arrivals to Sri Lanka	Monthly

Source: Developed by author (2025)

Conceptual Framework

Macroeconomic policies guide the overall performance and stability of the economy. Fiscal policy operates through government expenditure and government revenue. Public spending and taxation directly influence income, employment, and access to services. These changes shape individual preferences, which act as the dependent variable. Effective fiscal policy ultimately supports socio-economic stability. The conceptual framework (Figure 1) assesses the impact of fiscal and monetary policy on changing individual preferences.

Figure 1: Conceptual Framework



Source: Developed by author (2025)

Statistical Analysis

To investigate the relationship between motor vehicle registrations and the considered economic indicators, a time series analysis was conducted. The Augmented Dickey-Fuller test is performed to assess the stationarity of the variables considered in the analysis using the three variations detailed below.

$$\Delta y_t = \beta_1 + zy_{t-1} + \alpha_i + \varepsilon_i \text{ (Intercept only)} \text{----- (01)}$$

$$\Delta y_t = \beta_1 + \beta_{2t} + zy_{t-1} + \alpha_i + \varepsilon_i \text{ (Trend and intercept)} \text{----- (02)}$$

$$\Delta y_t = zy_{t-1} + \alpha_i + \varepsilon_i \text{ (No trend or intercept)} \text{----- (03)}$$

The Johansen cointegration test is then used to identify long-run relationships between the variables studied. In the presence of cointegration, a Vector Error Correction Model

(VECM) was developed, while the WALD test was used to identify short-run causality between the dependent variable and independent variables.

RESULTS AND DISCUSSION

The correlation matrix (Table 2) revealed that the individual preference for motor vehicles, as captured by vehicle registrations, correlates positively with real effective exchange rates (REER), vehicle tax rates (TAX), government wage index (GVT), and tourist arrivals (log transformed as LNSE), while interest rates (R) show an opposite or negative correlation. Also, all the variables are significantly correlated with motor vehicle registrations. This motivates the inclusion of the variables into the model.

Table 2: Correlation Matrix

Correlation Coefficient	LNIP	R	REER	TaX	GVT	LNSE
LNIP	1.000					
R	-0.583 (0.000)	1.000				
REER	0.572 (0.000)	-0.632 (0.000)	1.000			
TAX	0.537 (0.000)	-0.101 (0.363)	0.302 (0.005)	1.000		
GVT	0.538 (0.000)	-0.198 (0.071)	0.754 (0.000)	0.419 (0.000)	1.000	
LNSE	0.145 (0.000)	-0.185 (0.092)	0.683 (0.000)	0.088 (0.000)	0.703 (0.000)	1.000

Source: Author calculations

After conducting the ADF test, it can be seen that while none of the variables are stationary in levels, the first difference is stationary (Tables 3 and 4).

Table 3: Unit Root Test Results for Level Data

Variable	With Intercept		With Trend & Intercept		No Trend & Intercept	
	ADF Test Statistic	P-Value	ADF Test Statistic	P-Value	ADF Test Statistic	P-Value
LNIP	1.986	0.427	2.055	0.713	0.215	0.646
R	1.702	0.442	1.765	0.419	0.100	0.726
REER	1.672	0.153	2.319	0.721	0.146	0.456
TAX	2.372	0.770	4.578	0.870	0.597	0.839
GVT	0.941	0.056	1.344	1.000	0.581	1.000
LNSE	3.681	0.293	1.985	0.563	8.086	0.606

Source: Author calculations

Table 4: Unit Root Test Results for First Differenced Data

Variable	With Intercept		With Trend & Intercept		No Trend & Intercept	
	ADF Test Statistic	P-Value	ADF Test Statistic	P-Value	ADF Test Statistic	P-Value
LNIP	12.162	0.0001	12.091	0.0001	12.239	0.0000
R	8.192	0.0000	8.161	0.0000	8.239	0.0000
REER	7.580	0.0000	7.526	0.0000	7.635	0.0000
TAX	8.724	0.0000	8.659	0.0000	8.787	0.0000
GVT	10.404	0.0001	10.347	0.0000	10.472	0.0000
LNSE	12.085	0.0001	11.997	0.0001	12.186	0.0000

Source: Author calculations

Johansen Co-Integration Test

This test can be carried out when the data becomes stationary at the first difference or the second difference. Using the test, we can identify the variables associated with a long-run relationship. After analysing the Johansen co-integration test findings, it was found that there are two co-integration equations with a significance level of 0.05 (Table 5). These results indicate the presence of a long-term connection between the variables studied. Consequently, the Vector Error Correction model is developed.

Table 5: Unrestricted Co-Integration Rank Test (Maximum Eigen Values)

Hypothesised No. of CE (s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	0.529	60.929	40.078	0.000**
at Most 1*	0.384	39.303	33.877	0.010**
at most 2	0.184	16.439	27.584	0.628

Source: Author calculations

Vector Error Correction Model

The VECM can identify the functional relationship between dependent and independent variables (Chingarande, 2015). The estimated model for vehicle registrations is presented in Table 6.

The coefficient of co-integration shows the speed of adjustment towards equilibrium. The coefficient value -0.468 is negative in sign and has a p-value less than 5%. This suggests that the system corrects a disequilibrium in the previous period at a speed of 46.77%, monthly, and takes 1.1 months to correct itself.

Table 6: Results of Vector Error Correction Model – equation for vehicle registrations (LNIP)

	Coefficient	Std. Error	t-statistic	Prob.
Cointegration coefficient	-0.468	0.999	-4.680	0.000**
D(LNIP (-1))	-0.053	0.023	-2.331	0.023**
D(LNIP (-2))	0.142	0.116	1.229	0.223
D(R(-1))	0.141	0.113	1.247	0.217
D(R(-2))	0.063	0.058	1.095	0.278
D(REER(-1))	0.126	0.059	2.094	0.040**
D(REER(-2))	-0.007	0.017	-0.415	0.679
D(TAX(-1))	-0.016	0.017	-0.953	0.344
D(TAX(-2))	0.006	0.005	1.153	0.253
D(GVT(-1))	0.007	0.005	1.591	0.117
D(GVT(-2))	0.011	0.005	2.348	0.022**
D(LNSE(-1))	-0.000	0.005	-0.046	0.963
D(LNSE(-2))	0.424	0.140	3.020	0.004**
Trend	0.692	0.117	0.590	0.557
Constant	-0.015	0.021	-0.706	0.483

Source: Author calculations

The results indicate the presence of long-run causality running from the variables real effective exchange rate (REER), government wages (GVT), and socio-economic stability (LNSE) to individual vehicle purchase preferences. This means that, over the long term, changes in these macroeconomic and socio-economic factors systematically influence household decisions regarding vehicle purchases. In other words, movements in exchange rate fluctuations, public sector wages, and broader socio-economic conditions are not merely correlated with consumer preferences; they predict and drive changes in purchasing behaviour over time. The finding suggests that policy adjustments in any of these areas, such as an increase in government wages or improvements in socio-economic stability, can have a sustained impact on consumers' willingness and ability to purchase vehicles. By using the coefficient values derived from the Vector Error Correction Model, the following standard regression equation for the long run can be derived.

$$IP = 6.501 - 0.262 R_t + 0.022 REER_t - 0.015 TAX_t - 0.017 GVT_t + 0.712 LNSE_t$$

Interpretation:

- an increase of 1% in the interest rate would result in a decrease in motor vehicle registrations by 26% in the long run
- an increase of 1% in the tax rate on motor vehicles would result in a decrease in motor vehicle registrations by 1.5%

- an increase of 1% in the government wage index (proxy for purchasing power) would result in a decrease in motor vehicle registrations by 1.7%
- an increase of 1% in tourist arrivals (proxy for socio-economic stability) would result in an increase in motor vehicle registrations by 0.71%
- an increase of 1% in the real effective exchange rate would result in an increase in motor vehicle registrations by 2.2%

The Wald test is used to check whether there is a short-run causality between individual preferences and independent variables. Results in Table 7 show that there is no short-run causality running from real effective exchange rates, vehicle tax rates, and government wage index to vehicle registrations. Short-run causality runs from tourist arrivals and interest rates to vehicle registrations.

Table 7: Results of the WALD Test

Variable	Probability	Significant at 5%	
R	0.055	Significant	Short-run causality exists
REER	0.626	Not Significant	No short-run causality
TAX	0.244	Not Significant	No short-run causality
GVT	0.063	Not Significant	No short-run causality
LNSE	0.010	Significant	Short-run causality exists

Source: Author calculations

CONCLUSION

The study aimed to identify the macroeconomic factors that influence individual preferences for vehicle purchases in Sri Lanka, specifically macroeconomic policies and socio-economic stability. Findings from the Vector Error Correction Model (VECM) reveal a consistent, long-term connection between individual preferences for vehicles and key variables like real effective exchange rate, government wages, and socio-economic stability. The model also revealed that deviations from equilibrium are adjusted at a rate of about 46.77% per month, leading to full correction in approximately 1.1 months, showing a robust correction mechanism. Moreover, results from the WALD test indicate the effect of short-term dynamics. The findings indicate that real interest rates and socio-economic stability, as measured by tourist arrivals, significantly impact individual preferences in the short run. On the other hand, fiscal variables like tax rates, government spending, and real exchange rates do not have notable short-term effects. This hints that immediate responses to policy changes are more pronounced in monetary conditions and socio-economic environments compared to fiscal adjustments.

Individuals seem to react more to monetary policy changes, particularly interest rate and exchange rate fluctuations, than to fiscal policy actions. This suggests that within the Sri Lankan context, monetary tools are more impactful in shaping individual decisions on the

purchase of durable goods like motor vehicles than fiscal policies. The long-run equation reveals important directional relationships between macroeconomic variables and individual vehicle purchase preferences. Real interest rates, motor vehicle tax rates, and government wages exhibit negative long-run associations with vehicle registrations, indicating that higher borrowing costs, increased fiscal burdens, and constrained real income growth reduce households' willingness to undertake high-value purchases.

In contrast, the real effective exchange rate (REER) and socio-economic stability show positive long-run associations with vehicle purchase preferences. While a depreciation of the exchange rate is generally expected to reduce demand for imported vehicles by increasing their cost, the positive long-run relationship observed in this study reflects Sri Lanka's institutional and policy context. Periods of REER appreciation have often coincided with improved macroeconomic stability, greater foreign exchange availability, and the easing of import restrictions. These prerequisites result in stronger consumer confidence and access to imported cars, which might supersede the mere price influence in the long run. On the same note, enhanced socio-economic stability implies a more predictable economic condition, as this stimulates households to make long-lasting investments in purchases. In general, the findings indicate that the relative prices, policy regimes, and the impact of macroeconomic stability all contribute to the long-run vehicle purchasing behaviour in Sri Lanka.

These results support the opinion that individuals are more likely to reduce durable consumption due to worsening monetary factors or rising fiscal pressures, yet are more likely to consume during expansive socio-economic conditions with greater external competitiveness. Although it offers a view on the macroeconomic and socio-economic factors of purchasing a vehicle in Sri Lanka, this research study has a number of limitations. The proxy for preferences, vehicle registrations, shows the actual purchasing behaviour as opposed to the latent intention, but can be influenced by administrative or regulatory specifics. Socio-economic stability, as measured through the tourist arrivals, fails to reflect all the dimensions of concern, including income distribution or the quality of institutions. The model also does not include the variables of household income, vehicle prices, fuel costs, and consumer sentiment that could cause omitted variable bias. Lastly, the research timeframe considered (2017-2023) was a comparatively stable economic time, which restricts extrapolation to volatile times.

Future research could extend the analysis to longer and more recent periods, use alternative measures of consumer preferences, explore different vehicle categories, and incorporate socio-political indicators to provide a more comprehensive understanding of household decision-making.

RECOMMENDATIONS

The study emphasises that real interest rates and socio-economic stability are the most influential determinants of individual preferences for motor vehicles in Sri Lanka. Future policy interventions should focus on maintaining and bolstering socio-economic stability, as a stable political and social environment encourages households to purchase durable goods such as motor vehicles. Higher vehicle demand not only reflects increased consumer confidence but also stimulates economic activity through multiple channels, including increased investment in the automotive sector, higher demand for related goods and services (fuel, insurance, maintenance), and the generation of employment. Supporting socio-economic stability can therefore have a dual benefit: fostering consumer confidence while contributing to broader economic growth.

Given the significant role of real interest rates in shaping decisions, policymakers should carefully manage interest rate adjustments. The evidence leans towards monetary policy tools being more effective than fiscal instruments in influencing individual decision-making. Therefore, sustaining and improving individual preferences hinges on a stable and well-managed monetary environment. Recognition is due to the efforts of Sri Lanka's monetary authorities for implementing measures to stabilise monetary conditions and bolster the economic framework, which are vital in maintaining consumer confidence and long-term economic resilience. While this research spotlights economic and monetary factors affecting individual preferences, it suggests further exploration into socio-political factors like political trust, governance quality, institutional stability, and public confidence, which might significantly impact behaviour and decision-making in the Sri Lankan context.

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