

Pre-Owned Car Market in Kerala: Trends, Challenges, And Future Prospects in A Post-Pandemic Economy

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Abstract

This research paper examines the evolving dynamics of Kerala's pre-owned car market, with a particular focus on economic factors in the post-pandemic period. Through analysis of secondary data from government reports, industry publications, and market surveys, this study identifies key trends, challenges, and future prospects within this significant segment of Kerala's economy. Findings reveal a substantial shift in preferences toward pre-owned cars, influenced by economic uncertainties, changing mobility needs, digital transformation of market operations, and environmental considerations. The research further explores the market's response to these changes, including the emergence of organized retail channels, adoption of digital platforms, and integration of value-added services. This study contributes to the understanding of regional automotive markets and provides actionable insights for industry stakeholders navigating the evolving landscape of pre-owned car commerce in Kerala.

Keywords:- Pre-owned cars, Used car market, Kerala economy, Automotive retail, Post-pandemic market trends

I. INTRODUCTION

The automotive sector represents a significant component of Kerala's economy, with the pre-owned car market emerging as an increasingly important segment. Kerala, with its unique socioeconomic characteristics including high literacy rates, substantial remittance economy, and distinctive consumption patterns, presents an interesting case study for understanding the dynamics of pre-owned car markets in developing economies (Joseph et al., 2019). The global COVID-19 pandemic has further altered market dynamics, creating both challenges and opportunities within this sector.

The pre-owned car market in Kerala has traditionally been characterized by informal operations, limited organization, and information asymmetry. However, recent years have witnessed significant transformations in market structure and business models, accelerated by technological adoption and changing economic conditions (Kumar, 2021). Understanding these shifts is essential for stakeholders including dealers, financial institutions, policymakers, and consumers themselves.

II. LITERATURE REVIEW

The literature on pre-owned car markets has evolved significantly, from (Akerlof, 1970) seminal work on information asymmetry to contemporary studies exploring digital transformation and changing preferences. In the Indian context, (Jain & Yadav, 2017) noted that India's used car market has been growing at approximately 15% annually, outpacing the new car market. Research specific to Kerala's automotive sector has identified several distinguishing characteristics, including high vehicle density attributed to remittance inflows, dispersed settlement patterns, and inadequate public transportation infrastructure

(Thomas & Sebastian, 2018). Limited research exists on Kerala's pre-owned car market specifically, with (Krishnan, 2019) providing an overview of the predominantly small, independent dealer structure and the emerging presence of organized retail chains.

The impact of COVID-19 on automotive markets has attracted considerable scholarly attention globally, with studies documenting disruptions in supply chains, changes in mobility patterns, and shifts in preferences. (Deloitte, 2021) reported increased interest in personal vehicle ownership across markets driven by health safety concerns. In India, (Goel & Sharma, 2021) observed heightened interest in pre-owned cars post-pandemic, attributing it to economic uncertainties and value-conscious purchasing. However, research specifically examining the pandemic's impact on Kerala's pre-owned car market remains scarce, representing a notable gap in the literature that this study aims to address.

III. RESEARCH METHODOLOGY

3.1. Research Design

This study employs a descriptive research design, focusing on the systematic analysis of secondary data to understand the economic dimensions of Kerala's pre-owned car market. The descriptive approach is appropriate given the research objectives, which center on identifying patterns, trends, and relationships within an existing market phenomenon (Saunders et al., 2019).

3.2. Data Sources

The research relies exclusively on secondary data sources, carefully selected for relevance, credibility, and recency. The study draws from a comprehensive array of information sources to ensure thorough coverage of the market dynamics. Government reports from the Kerala State Transport Department and Ministry of Road Transport and Highways provide official statistics, while industry analyses from organizations such as FADA and SIAM offer market-specific insights. Academic literature, economic indicators from the Kerala State Planning Board and Reserve Bank of India, and aggregated data from online marketplaces further complement these sources. This methodological triangulation of diverse data sources significantly enhances the validity and reliability of the research findings (Yin, 2018).

3.3. Data Analysis Approach

The research employs a mixed-methods approach to data analysis, integrating multiple analytical techniques to develop a comprehensive understanding of the market. Trend analysis examines time-series data to identify patterns and trajectories in market indicators, while comparative analysis benchmarks Kerala's market against other Indian states and international markets. These quantitative approaches are complemented by content analysis of reports and commentaries, economic analysis of supply-demand dynamics, and statistical techniques to establish relationships between variables. This integrated analytical framework enables robust examination of both the quantitative market metrics, providing a multidimensional perspective on the functioning of Kerala's pre-owned car market.

IV. OBJECTIVES

This research aims to analyze the economic factors shaping Kerala's pre-owned car market, with particular attention to post-pandemic developments. Through systematic analysis of secondary data, the study seeks to:

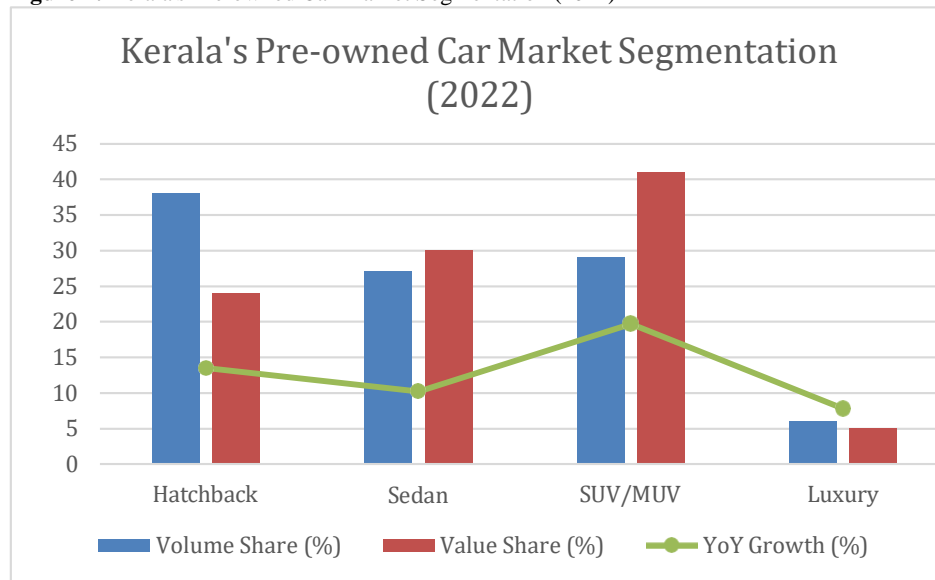
- Identify key trends in Kerala's pre-owned car market over the past five years
- Analyze the economic factors influencing supply and demand dynamics
- Assess challenges facing market participants
- Explore future prospects and opportunities within the sector

The significance of this research lies in its contribution to understanding a vital yet understudied segment of Kerala's economy, providing valuable insights for business strategy formulation, policy development, and decision-making in the automotive sector.

V. KERALA'S PRE-OWNED VEHICLE MARKET: STRUCTURE AND EVOLUTION

Kerala's pre-owned car market has demonstrated consistent growth over the past decade, with acceleration in recent years. According to data from the Kerala Motor Vehicle Department, vehicle registrations for transfer of ownership increased at a compound annual growth rate (CAGR) of 12.3% between 2016 and 2021, exceeding the national average of 9.7% (KMVD, 2022). The market was valued at approximately ₹8,200 crores in 2021, representing about 6.5% of Kerala's retail trade sector, and has exhibited resilience even during economic disruptions. While new car sales in Kerala declined by 23% during the 2020 pandemic year, the pre-owned car market contracted by only 8.7%, recovering to pre-pandemic levels by the third quarter of 2021 (FADA, 2022).

Figure 1: Kerala's Pre-owned Car Market Segmentation (2022)



Source: FADA (2022), Frost & Sullivan (2022)

The market operates through three primary channels: individual-to-individual transactions (45%), independent dealers (38%), and organized retail (17%, growing from just 7% in 2016). Urban centers account for 63% of transactions, though rural market share has grown by 5 percentage points since 2018 (KMVD, 2022).

The evolution of Kerala's pre-owned car market can be understood through distinct phases: the Traditional Phase (pre-2010) characterized by fragmented operations and limited transparency; the Transition Phase (2010-2016) marked by the entry of online classified platforms; the Transformation Phase (2016-2020) featuring organized retail chains and enhanced digital integration; and the Post-Pandemic Phase (2020-Present) defined by accelerated digital adoption and changing mobility preferences (Kumar, 2021).

The regulatory environment continues to evolve, with increasing emphasis on formalization, environmental sustainability, and consumer protection. Key regulatory aspects include transfer of ownership requirements, taxation under GST, increasingly stringent emission standards, enhanced consumer protection measures, and insurance regulations. These regulatory developments present both challenges and opportunities for market participants (KMVD, 2022).

VI. ECONOMIC FACTORS INFLUENCING MARKET DYNAMICS

Several macroeconomic factors significantly influence Kerala's pre-owned car market. Kerala's per capita income exceeds the national average by approximately 65%, creating substantial purchasing power for vehicle acquisition (Kerala State Planning Board, 2022). The state's economy is significantly influenced by overseas remittances, estimated at ₹1.6 lakh crores in 2021-22, equivalent to approximately 20% of the state's GDP (Reserve Bank of India, 2022). Research by (Joseph & Kumar 2021) found that households receiving remittances are 37% more likely to purchase cars, with significant spillover effects in local pre-owned car markets when remittance patterns fluctuate. The Reserve Bank of India's accommodative monetary policy during 2020-2022 resulted in reduced interest rates, with average rates for pre-owned car loans declining from 15.8% in 2019 to 12.4% by 2022 (Indian Banks' Association, 2022).

Table 1: Economic Indicators Impacting Kerala's Pre-owned Car Market (2019-2022)

Economic Indicator	2019	2020	2021	2022
Kerala's Per Capita Income (₹)	205,484	214,763	228,357	241,618
Remittance Inflow (₹ Crores)	138,000	128,000	151,000	160,000
Avg. Pre-owned Car Loan Rate (%)	15.8	14.3	13.1	12.4
Unemployment Rate (%)	9.2	26.5*	8.7	5.8

*Peak during pandemic lockdown

Source: Kerala State Planning Board (2022), RBI (2022), IBA (2022)

On the supply side, passenger cars in Kerala experience average first-year depreciation of 15-20%, compared to the national average of 20-25%, reflecting both the state's vehicle maintenance culture and favorable climatic conditions (Frost & Sullivan, 2022). Commercial fleet operators typically replace vehicles every 4-6 years, creating a consistent supply of well-maintained vehicles entering the pre-owned market, with a 17% increase in fleet replacements observed in 2021 compared to pre-pandemic levels (Nair, 2021). India's Vehicle Scrappage Policy (2021) has begun to impact the market, with a 9% reduction in registrations of vehicles over 15 years old in 2022 compared to 2020 (KMVD, 2022).

Demand-side economics reveal high price sensitivity, with research by (Thomas & Kumar, 2022) estimating the price elasticity of demand at -1.37, varying significantly by segment. Income elasticity analysis shows that entry-level segments demonstrate necessity characteristics (0.78), while premium segments exhibit luxury good characteristics (1.65) (Nair & Menon, 2022). The pandemic caused significant employment disruptions in Kerala, with unemployment rates peaking at 26.5% in May 2020 before gradually recovering to 5.8% by December 2021 (Kerala State Planning Board, 2022). These

economic shifts have altered mobility needs and consumption priorities, with the share of discretionary spending allocated to vehicle acquisition increasing from 14.2% pre-pandemic to 18.7% by 2022 among middle-income households (CMIE Consumer Pyramids, 2022).

VII. MARKET CHALLENGES AND OBSTACLES

Despite market evolution, trust issues persist as significant challenges. Only 38% of pre-owned cars sold in Kerala come with complete documented history, creating information gaps that undermine confidence (FADA, 2022). The absence of universally accepted quality assessment standards creates inconsistent evaluation practices, while price discovery mechanisms remain suboptimal despite digital interventions, with price variations of 12-18% for equivalent vehicles across different market channels (Kumar, 2021). Warranty provisions remain inconsistent, with approximately 65% of transactions occurring without formal warranty protection (Nair & Menon, 2022).

The regulatory environment presents several challenges. The transfer of ownership process involves multiple agencies and documentation requirements, requiring interaction with 3.2 different government entities on average (KMVD, 2022). The implementation of increasingly stringent emission standards creates compliance challenges for older vehicles, with approximately 28% of pre-owned cars in Kerala facing operational restrictions in certain zones. Vehicles registered in other states face additional compliance requirements when transferred to Kerala, adding ₹15,000-₹30,000 to transaction costs and extending process completion by 15-25 days on average (FADA, 2022).

Table 2: Key Challenges in Kerala's Pre-owned Car Market

Challenge Category	Specific Issues	Impact
Information & Trust	Incomplete vehicle history (62% of transactions)	Reduced confidence, price discount of 8-12%
	Lack of standardized quality assessment	Price variations of 12-18% for equivalent vehicles
	Limited warranty coverage (65% of transactions)	Post-purchase dissatisfaction, increased repair costs
Regulatory	Complex transfer process (3.2 govt. entities)	Extended transaction time (avg. 17 days)
	Emission standard compliance (28% of older cars affected)	Market value reduction of 15-22% for affected vehicles
	Inter-state transfer requirements	Additional costs (₹15,000-₹30,000), 15-25-day delay
Infrastructure	Limited purpose-designed facilities (23% of dealers)	Suboptimal customer experience
	Financing limitations for older vehicles	48% approval rate for cars >7 years vs. 83% for cars <5 years
	Digital infrastructure gaps (rural vs. urban)	39% rural adoption vs. 78% urban adoption

Source: FADA (2022), KMVD (2022), Nair & Menon (2022), OLX India (2021)

Physical and operational infrastructure presents various challenges. Only 23% of dealers operate from purpose-designed facilities, with the remainder utilizing adapted spaces with suboptimal customer experience (Krishnan, 2019). Financing availability remains limited for certain segments, with vehicles older than 7 years receiving financing approvals in only 48% of applications, compared to 83% for vehicles under 5 years old (Indian Banks' Association, 2022). Authorized service networks frequently prioritize new vehicle customers, with 42% of pre-owned car owners reporting difficulty accessing authorized service centers (Joseph, 2022). Digital infrastructure penetration remains uneven, with rural adoption of digital platforms at 39% compared to 78% in urban areas (OLX India, 2021).

Human resource limitations affect market functioning, with a 35% gap between market requirements and available certified technical evaluators (Nair & Menon, 2022). Limited understanding of vehicle financing and total cost of ownership affects decision quality, with only 42% of consumers accurately understanding the financial implications of their purchase (Joseph, 2022). Professional standards in sales practices vary considerably, with only 26% of pre-owned car sales personnel having received formal training in automotive retail (FADA, 2022).

VIII. FUTURE PROSPECTS AND OPPORTUNITIES

Economic modeling suggests continued robust growth for Kerala's pre-owned car market, with projections indicating a CAGR of 15.7% over the 2022-2027 period, potentially increasing annual transaction volume from approximately 2.8 lakh cars in 2022 to 5.8 lakh cars by 2027 (Frost & Sullivan, 2022). Market value is projected to grow at a CAGR of 17.3%, expanding from ₹8,200 crores in 2021 to approximately ₹18,600 crores by 2027. The organized sector's market share is projected to expand from 17% in 2022 to 32% by 2027 (Frost & Sullivan, 2022).

Table 3: Kerala's Pre-owned Car Market Growth Projections (2022-2027)

Metric	2022 (Actual)	2023	2024	2025	2026	2027	CAGR (%)
Transaction Volume (lakhs)	2.8	3.2	3.8	4.4	5.1	5.8	15.7
Market Value (₹ crores)	8,900	10,450	12,250	14,350	16,800	18,600	17.3
Organized Sector Share (%)	17	20	23	26	29	32	-
Digital Platform Involvement (%)	32	35	38	42	45	48	-
Electric Car Share (%)	0.5	1.2	2.4	3.8	5.3	7.2	-

Source: Frost & Sullivan (2022), Mathew & Thomas (2022), Nair & Menon (2022)

Technological advancements are reshaping market operations and experiences. Digital platforms are evolving from simple classified listings to integrated transaction environments, with projections suggesting that 42% of transactions will involve digital platforms in transaction completion by 2025 (Joseph, 2022). The adoption of OBD-based evaluation tools is projected to increase from 19% of evaluations in 2022 to 57% by 2025, while blockchain-based vehicle history platforms could reach 22% of transactions by 2025 (Mathew, 2021). AI-driven pricing models are improving pricing accuracy, with early implementations reducing pricing variance by 7-11% compared to traditional methods (Kumar, 2021).

New business models are creating market opportunities. Subscription and flexible ownership models are gaining traction, particularly in urban areas, projected to capture 8-10% of the market by 2027 (Nair & Menon, 2022). Manufacturer-backed certified pre-owned programs are expanding, with CPO sales projected to grow at CAGR 27.3% (FADA, 2022). Car aggregator platforms are projected to capture 18-22% of the market by 2025, while hybrid "phygital" retail models combining digital reach with physical experience centers demonstrate conversion rates 23% higher than pure digital or traditional physical models (Thomas & Sebastian, 2022).

Environmental considerations and policy evolution will shape market development. The pre-owned electric car segment is projected to reach 6-8% of the market by 2027 as first-generation EVs enter the pre-owned market (Nair & Menon, 2022). Principles of circular economy are increasingly influencing market practices, with 28% of pre-owned car retailers now operating or partnering with parts recycling operations, projected to reach 45% by 2026 (Joseph, 2022). Potential policy interventions could significantly impact market structure, with estimates suggesting that comprehensive policy implementation could accelerate market formalization by 30-40% (Mathew & Thomas, 2022).

IX. CONCLUSIONS AND RECOMMENDATIONS

This research has identified several significant findings regarding Kerala's pre-owned car market. The market demonstrates robust growth potential, with projected CAGR of 15.7% (2022-2027), significantly outpacing both Kerala's GDP growth and new car market expansion. A structural transformation is underway, characterized by increasing formalization, digital integration, and standardization of operations, though significant segments remain informal and fragmented. Information asymmetry persists as a fundamental market challenge despite technological interventions, affecting price discovery, quality assessment, and transaction confidence. The post-pandemic environment has accelerated digital adoption, preference for personal mobility, and value-consciousness in purchasing decisions. Emerging business models and environmental considerations are creating new market opportunities while potentially addressing traditional market inefficiencies.

These findings have significant implications for various stakeholders. Dealers and retailers should prioritize digital integration while maintaining physical inspection capabilities, invest in standardized vehicle evaluation technologies, develop robust vehicle history documentation systems, and explore emerging business models including subscription services. Financial institutions should expand financing options for pre-owned cars, develop tailored financial products, and implement technology-enabled evaluation systems to improve risk assessment accuracy. Policymakers should streamline ownership transfer processes, develop standardized vehicle inspection protocols, consider incentives for retiring older vehicles, and implement comprehensive policy frameworks balancing consumer protection, environmental considerations, and market growth.

Several areas merit further investigation, including longitudinal studies tracking evolving market trends, environmental impact assessment of the pre-owned car market, evaluation of digital transformation effectiveness, analysis of emerging business models, and studies on the impact of regulatory interventions on market outcomes.

Kerala's pre-owned car market stands at an inflection point, characterized by accelerating transformation and significant growth potential. The convergence of digital technologies and emerging business models creates opportunities for addressing traditional market inefficiencies while delivering enhanced value to consumers. As traditional boundaries between new and pre-owned markets blur, and as alternative ownership models gain traction, the pre-owned car market's future development will likely be characterized by increased integration within a broader mobility ecosystem, presenting both challenges and opportunities for all participants in this important economic sector.

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