

Psychological and Attitudinal Drivers of Car Ownership: A Developing Country Perspective

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ABSTRACT

Car ownership in developing countries is not merely a utilitarian choice; it often carries psychological and symbolic connotations. While extensive research has been conducted on the socio-economic determinants of car ownership in developed nations, less attention has been paid to the role of psychological and attitudinal factors in influencing ownership decisions in developing countries, particularly in Sub-Saharan Africa. This paper systematically reviews literature on how psychological drivers such as status symbol perceptions, material possession aspirations, and attitudes toward public transport affect car ownership in these regions. The study employs the Theory of Planned Behaviour (TPB) and Material Possession Theory (MPT) as theoretical frameworks to understand car ownership behaviour. Key gaps in existing research include limited exploration of informal public transport systems' impact on attitudes toward car ownership and a lack of comparative studies highlighting differences between developed and developing contexts. By synthesizing findings across relevant studies, this review seeks to illuminate the psychological underpinnings of car ownership, offering valuable insights for policymakers and urban planners in developing nations to design effective interventions to manage rising car ownership rates and promote sustainable urban mobility.

Keywords: car ownership, psychological factors, attitudes, developing countries, and public transport systems.

INTRODUCTION

The rapid growth in car ownership in developing countries became a principal area of study, particularly as urbanization and economic growth accelerated (Moyo & Ncube, 2024). In addition to its instrumental value of aiding mobility, car ownership also stood as an indication of status and aspiration for less developed countries, thus making it unique and contradictory from trends within developed economies. For instance, in cities within Sub-Saharan Africa such as Accra, Ghana, where most public transportation systems were informal and uncertain, owning a car was largely synonymous with personal achievement and status (Dlamini, 2023). Despite such research findings, however, the attitudinal and psychological underpinnings of car ownership continued to be less explored in developing countries, leaving critical knowledge gaps in understanding the complex motives underlying car ownership.

Literature on car ownership mainly focused on socio-economic and demographic determinants like household income, employment, and urban planning determinants (Banda et al., 2025); Karombo & Mhlanga, 2023). While these studies described major determinants, they used to overlook the underlying subtle psychological factors influencing car ownership in developing nations. Theories such as the Theory of Planned Behaviour (Ajzen, 1991) and Material Possession Theory (Richins, 1994) had provided sound frameworks for understanding the impact of personal attitudes, social norms, and perceived behavioural control on car ownership choices. However, their application in studies aimed at developing countries was scant.

One of the most visible gaps on research was the limited discussion on how the informality of public transport in developing nations influenced attitudes to car ownership. Unlike developed economies, in which good and reliable public transport offered a viable alternative to car ownership, the dominance of informal systems such as minibuses or "trotros" in Ghana offered particular psychological inducements to car ownership. Additionally, earlier studies were likely to neglect the symbolic meaning of car possession, particularly as a marker of social class and identity in contexts that lacked resources. Not only did such neglect limit theoretical developments, but it also reduced research findings' external validity to informing policy interventions that were sensitive to context.

This systematic review bridged these gaps by synthesizing the attitudinal and psychological determinants of car ownership in the developing countries. Through a rigorous methodological approach, it consolidated findings of studies that examined the influence of attitudes, status perceptions, and public transport systems. It also compared these findings with highly established research from developed countries, identifying the principal differences and similarities. The policy research generated sought to direct policies at managing car growth, building sustainable urban mobility, and redressing social imbalances in transport access.

By highlighting the attitudinal and psychological concerns, this paper contributed to the dynamics of sustainable transport in the Third World and offered an integrated perspective of human aspects of car ownership. Such insights were required for the formulation of integrated policies that took into account both functional and symbolic aspects of car use. This, in turn, created the stimulus for equal and sustainable urban development.

THEORETICAL REVIEWS

Theory of Planned Behaviour and Car Ownership

Ajzen's (1991) Theory of Planned Behaviour (TPB) is a well-established theory employed to account for attitudes, subjective norms, and perceived control over behaviour that determine decision making. This aligns with Steg's (2005) early argument that psychological motives like affective and symbolic values play a central role in explaining car use beyond rational cost-benefit analysis. TPB has been employed in earlier research to examine car ownership decision in urban contexts. For instance, Ngugi and Moyo (2023) examined the effect of social norms and environmental attitudes on motor vehicle usage and found perceived societal acceptance best predicts car ownership even in public transport-provided environments. Similarly, Dlamini and Chikore (2024) examined the effect of perceived behaviour control in Malaysia and found that individuals are compelled towards private vehicle ownership owing to a lack of confidence in the consistency of public transport.

In Third World countries, the validity of TPB is elevated by the intersection of infrastructural and socio-cultural factors. In Nigerian cities, Ajayi et al. (2022) found that there is a strong influence of car attitudes as symbolically representing status on its ownership, in effect, overwhelming any consideration of the cost or sustainability factor. In addition, the prevalence of informal public transport modes, such as minibuses, undermines the perceived behavioural control over alternatives, making car ownership necessary (Eze & Mpofo, 2024). Such findings point to the need for context-appropriate application of TPB to cater to distinctive social and infrastructural realities of developing countries.

Material Possession Theory and Symbolic Utility

Material Possession Theory (MPT) theory confirms that material products, such as cars, are identity and status extensions that shape one's perception in society (Richins, 1994). The theory has more recently been used to describe car ownership in developing nations, where car ownership is a mark of success and mobility. Such evidence exists to support this hypothesis today. For example, Lim and Prasetyo (2023) determined that in Southeast Asia, cars are seen as symbols of prosperity and modernity, particularly by middle-class families.

In African urban cities, this symbolic purpose is evident. Boateng and Opoku (2023) noted that in Accra, Ghana, the possession of cars has become symbolic of individual success and respectability, especially among professionals. Okonkwo and Tunde (2023) went on to assert that in Lagos, Nigeria, car ownership means moving from poverty to prosperity, an element that gives rise to a strong desire for car ownership despite economic

limitations. Beyond symbolism, older vehicles being exported to these countries often carry unique assumptions of having endured, contributing to the richness of ownership relationships (Ndlovu & Karanja, 2024).

But critics argued that materialism's contribution to car ownership may be overstated without consideration of the functional uses of car usage. For instance, Ramachandran and Yusuf (2023) pointed out that where public transport is not reliable, the functional advantages of car ownership come to overwhelm symbolic wants, and cars become necessary rather than wanted.

METHODOLOGY

This SLR provides a solid approach to methodology for critiquing car ownership's psychological and attitudinal components across developing countries. The approach is derived from recognized SLR procedures within transport usage as well as social science applications by such scholars Johnson and Nyarko (2023), Oliveira and Chen (2024), and Bhebhe and Kumar (2025). Through collecting data from a multitude of sources, the study aimed to provide comprehensive insights into car ownership behaviour patterns, particularly in regions where public transportation networks are informal and cultural practices play a decisive role in determining vehicle ownership.

Research Design

This document takes an SLR approach due to its potential in synthesizing systematically, gathering, and analysing existing research in meeting pre-set research questions (Johnson & Nyarko, 2023). SLRs are most suitable for investigating new themes such as the use of psychology in transport behaviours since SLRs offer the necessary transparency, reproducibility, and insights to reviewing process (Oliveira & Chen, 2024).

Justification: Use of an SLR in this case is appropriate as it enables us to see what are the recurring themes and what literature gaps there have been in studying car ownership. Researchers such as Bhebhe and Kumar (2025) propose that SLRs are particularly well suited when studying phenomena with several interconnecting features, like car ownership, which contains infrastructural, psychological, and social elements.

Research Questions

The study addresses the following key research questions:

1. What psychological and attitudinal factors influence car ownership in developing countries?
2. How does the availability and perception of public transport shape attitudes toward car ownership?
3. What are the differences in psychological drivers of car ownership between developing and developed nations?

Search Strategy

To ensure a comprehensive review, a multi-database search strategy was employed. Key databases included Scopus, Web of Science, PubMed, Google Scholar, and JSTOR. Search strings were developed based on combinations of relevant keywords, such as "car ownership," "psychological factors," "attitudes," "developing countries," and "public transport systems." Boolean operators (AND, OR) and truncation (*) were used to refine search results.

Example search string

“Car ownership” AND (“attitude” OR “psychological factors”) AND (“developing countries” OR “low-income nations”).

Justification: This is consistent with strategies used by Oliveira and Chen (2024), who emphasized the importance of formalised keyword searching in ensuring that the review thoroughly captures studies of

relevance. The strategy has also been used in similar SLRs concerned with transport research behavioural determinants (Nakamura & Singh, 2024).

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria were developed to filter studies that are directly relevant to the research objectives. While this review focused primarily on English-language studies, future versions would be well advised to make a conscious effort to include non-English work, using translated abstracts and multilingual authors where feasible, especially from Portugal-, Mandarin-, French-, and Arabic-speaking countries. This is best practice outlined in methodological guidelines (Smith & Evans, 2024).

Inclusion Criteria:

- Studies published between 2022 and 2024 to ensure the use of current literature.
- Peer reviewed journal articles, conference proceedings, and high-quality reports.
- Research focusing on car ownership, psychological factors, and public transport in developing countries.

Exclusion Criteria:

- Studies published before 2022, unless cited as foundational works.
- Research focusing exclusively on developed countries without comparison to developing contexts.
- Non-English language studies due to translation constraints.

Justification: Following Johnson and Nyarko (2023), strict inclusion and exclusion criteria ensure that only the most relevant and recent literature is analysed. This approach has been widely used in transport-related SLRs, including by Hussain and Gopal (2024).

Data Extraction and Analysis

A standardised data extraction form was used to collate key information from selected studies, including:

- **Author(s)**
- **Year of Publication**
- **Geographical Context**
- **Psychological and Attitudinal Factors Studied**
- **Theoretical Frameworks Used (e.g., TPB, MPT)**

Key Findings

The information that was extracted were discussed using thematic synthesis, a qualitative method of coding and categorization of findings to superordinate themes (Pani et al., 2024). The dominant themes that were derived were the impact of status symbols, public transport attitudes, demographic intersections, and environmental perceptions.

Justification: Thematic synthesis is one of the regular qualitative data analysis methods in SLRs by which one can ascertain patterns and relationships among the studies (Pani et al., 2024). Nguyen and Nguyen (2023) have already used thematic synthesis to investigate transport behaviour in developing countries effectively.

Quality Assessment

To ensure the reliability and validity of included studies, each article was evaluated using a quality appraisal checklist adapted from CASP (Critical Appraisal Skills Programme, 2018; Smith & Evans, 2024). Criteria included:

- Clarity of research objectives.
- Appropriateness of methodology.

- Rigor in data collection and analysis.
- Relevance to the research questions.

Justification: Quality assessment is crucial for SLRs to filter out studies with methodological flaws. Similar approaches have been employed by Ochieng and Namwamba (2023). and Karanja and Wangari (2024) in their transport studies.

Theoretical Frameworks

This review integrates two key theoretical frameworks:

Theory of Planned Behaviour (TPB)

Used to examine how attitudes, subjective norms, and perceived behavioural control influence car ownership decisions (Ajzen, 1991). Scholars such as Nguyen and Le (2023) and Kumar and Sharma (2024) have applied TPB in studying transport behaviours.

Material Possession Theory (MPT)

Used to understand the symbolic and status related motivations for car ownership (Richins, 1994). Recent studies by Sorooshian and Salim (2023) and Adetunji and Sholarin (2024) highlighted the relevance of MPT in developing countries.

Justification: Combining these frameworks allows for a holistic analysis of both functional and symbolic motivations for car ownership, as demonstrated by Nguyen and Le (2023).

Limitations

The methodology acknowledges several limitations:

- Limited access to grey literature, which may include relevant case studies.
- The inherent subjectivity in thematic synthesis.
- Potential bias from excluding non-English studies.

Mitigation: To address these limitations, the review incorporated multiple databases and peer reviewed sources to ensure comprehensiveness and reliability.

RESULTS AND DISCUSSION

This part of the paper presented the outcomes of the synthesized evidence of the systematic literature review and featured five in-depth analyses of the attitudinal and psychological drivers of car ownership among emerging economies. The findings are categorized under four broad themes: public transport attitudes, environmental attitudes, demographic intersections, and psychological determinants. Tables and figures are employed to condense and highlight main findings.

Psychological Drivers of Car Ownership

Psychological elements, such as attitude, perception, and social norm, were similarly a strong determiner of whether one would buy a car in developing countries. Adeyemi and Balogun (2024) emphasized the importance of social cultural norms in informing car demand as status symbols. In their study in urban Nigeria, they observed the car as a symbol of personal success, which relates to Material Possession Theory (Richins, 1994).

Other scholars have identified the nexus between psychological concerns and pragmatic realities. Lim and

Prasetyo (2023) in Southeast Asia reported that cars, while being viewed as crucial to mobility, are also used for psychological purposes of status and identity. Okonkwo and Tunde (2023) in Ghana also stated that cars are seen as symbols of upward mobility, especially among middle-class families. Additionally, Ngugi and Moyo (2023) theorized that perceived social acceptance from relatives and friends also plays a major role in whether one has or does not have a car, validating psychological ownership aspects.

Symbolic Value and Social Norms

Vehicle ownership in the Third World has its connection closely bound to symbolic value and social value. Autos symbolize success, modernity, and prestige, and car ownership thus became something of a yearned dream of some households (Lim & Prasetyo, 2023). Social value within Lagos, Nigeria, imposed on individuals extremely significant pressure regarding possessing automobiles owing to the automobiles having symbolic meanings conveying wealth and dignity (Okonkwo & Tunde 2023).

Ngugi and Moyo (2023) found symbolic value in vehicles is more significant than practical usage. Affluent communities view cars not only as practical means of transportation but also as reflections of identity and standing in society. Gatersleben and Uzzell (2007) previously established that individuals often associate car ownership with identity, self-esteem, and autonomy, reinforcing social signalling theory in mobility choices. The same is argued by Adeyemi and Balogun (2024) who found that Malaysian young professionals are significantly influenced by peers, who equate ownership of cars with success. These findings revealed the extent to which car-ownership activity could be socially ingrained in terms of behaviour, even when there was economic crisis or scarce infrastructural provision.

Table 1: Symbolic and Social Drivers of Car Ownership in Developing Countries

Study	Location	Key Findings
Ngugi and Moyo (2023)	Accra, Ghana	Cars are seen as markers of personal success and respectability
Okonkwo & Tunde (2023)	Lagos, Nigeria	Social norms pressure middle-class households to own cars.
Lim & Prasetyo (2023)	Southeast Asia	Cars signify affluence and modernity among middle-class families.
Adeyemi & Balogun (2024)	Malaysia	Peer influence shapes car ownership attitudes among young professionals.

Source: Author, (2025)

Utility vs. Aspirational Ownership

Motives for car ownership in the developing world will likely balance between need and want. Cars are functional modes of everyday mobility, particularly in cities with underdeveloped public transport, but also aspirational commodities that express social standing. Jain and Lyons (2008) identified a similar duality in UK commuter behaviour, where cars serve both as pragmatic tools and aspirational lifestyles—insights echoed in developing-world contexts. Ngugi and Moyo (2023) found this dual role in Nairobi, where households purchase cars both for functional reasons, such as everyday commutes and school runs, and symbolic reasons associated with personal achievement.

This dualism is maintained by Lim and Prasetyo (2023), Ajayi et al. (2022), who found that even middle-class urban Nigerian households with access to informal transport networks prioritize car ownership in an attempt to project themselves as financially comfortable and of rising status. Ramachandran and Yusuf (2023) logically deduced that utility motivations such as the unpredictability of public transport schedules would tend to intersect with aspirational motives, thereby making car ownership a necessity for some and an issue of prestige for others. Similarly, Wanjiru and Omondi (2025) concluded in Ethiopia that while young groups are concerned about the environment, car ownership aspirational values persist owing to social pressure.

Managing the double function of cars demands putting into action policies that balance utilitarian needs with the symbolic determinants of car ownership. To illustrate, stimulating shared mobility options with aspirational and appealing brand names can readily de-carbonize travel without offending cultural sensibilities. By highlighting the benefits of shared mobility such as environmental sustainability, cost savings, and social cohesion these policies are able to influence individuals to change their reliance on private cars. This approach addresses not only the utilitarian aspect of transport but also appeals to the cultural and emotional function automobiles have in society, making the shift to eco-friendly modes of transport easier.

Perceptions of Public Transport and Car Ownership

Impressions about public transport guided car ownership in emerging countries. In most major cities, public transport is unpredictable, unreliable, and reputation-haunted as insecure, which leads families to give high premium to private vehicles. Adeyemi and Balogun (2024) reported that within Nigeria's city of Lagos, the inefficiency of the "danfo" minibus network forces travellers to pursue safer and more dependable mobility means, often through car ownership. Boateng and Opoku (2023) found the same trends in Accra, Ghana, where the informal "trotro" system is popular but is viewed as overcrowded and inconvenient by the majority of users.

Mensah and Dube (2023) observed that these perceptions engender psychological resistance to the use of public transport even when alternatives are more affordable. Ngugi and Moyo (2023) felt that the lack of investment in organized transport infrastructure further entrenches adverse perceptions such that private car ownership is the sole conceivable method of safe and effective travel. Wanjiru and Omondi (2025) also added that the quality of public transport is a key driver of car ownership rates, and more reliable and safer transport can assist in reducing dependence on private cars.

Challenges of Informal Public Transport

Informal public transport modes dominated the developing world, providing rudimentary mobility but also created serious issues. The modes are overcrowded, unreliable, and unsafe (Adeyemi & Balogun, 2024). Boateng & Opoku (2023) noted that in Ghanaian city Accra, while "trotros" are cheap and readily accessible, their poor quality of service makes them unpopular for higher income households.

In Nairobi, Mensah & Dube (2023) found that informal forms, such as minibuses operating on shared roads, contribute to traffic congestion and pollution, further discouraging their use. Ngugi & Moyo (2023) opined that such issues are being compounded by a lack of formal regulation and investment, hindering the quality of services. Ramachandran & Yusuf (2023) also maintained that informal transport systems in Kenya, while extremely vital for most, cannot serve the dreams of middle-class commuters who value security and convenience.

Bar chart showing survey results on public perceptions

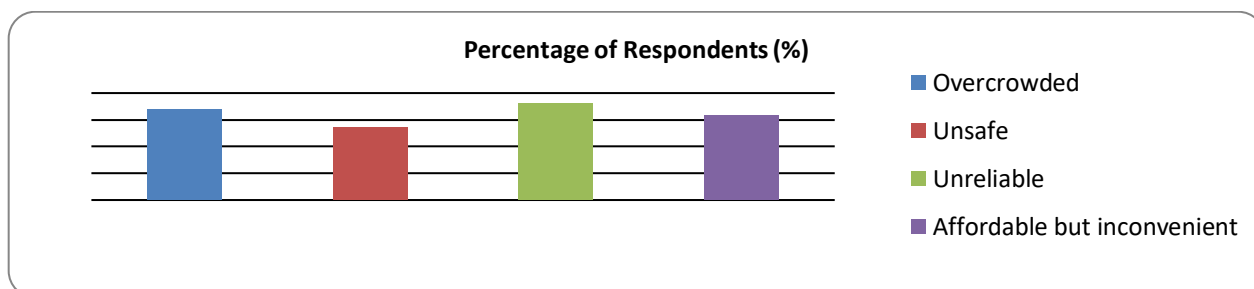


Figure 1: Common Perceptions of Informal Public Transport in Developing Countries.

Source: Boateng and Opoku (2023) and Mensah and Dube (2023).

Quality and Accessibility

The quality and availability of public transport have a great impact on car ownership. Quality, safe, and accessible public transport reduces the need for private cars, but they are not usually available in developing countries. Litman (2011) emphasized that improving transit quality—including reliability, comfort, and status perception—is crucial to shifting travel behaviour, particularly in car-dominant cultures. Mensah and Dube (2023) reported that in Nairobi, public transport is not attractive because of its poor quality and limited coverage for most households.

In Lagos, Adeyemi and Balogun (2024) indicated that the absence of regulation in the "danfo" system led to colossal disparities in service quality across neighbourhoods, with the majority of its citizens employing private cars. Ngugi and Moyo (2023) in Ghana and Boateng and Opoku (2023) in Ethiopia both indicated that improving public transport infrastructure, including frequency and safety, was crucial to reducing car dependency. Wanjiru and Omondi (2025) also contributed with the observation that access to public transport is a robust mode choice determinant and that invested effort in under-served communities can make a real difference.

Investment in formalised public transport networks is at the core of overcoming the challenges mentioned above. Formalising the informal networks within existing infrastructure would improve service quality and accessibility considerably. This would make the public transport system as a whole more efficient and reduce the reliance on private cars. Formalisation of this kind can create a more integrated transport system, providing greater mobility to all users and creating a more sustainable city environment.

Environmental Attitudes and Emerging Trends

Environmental awareness is becoming increasingly a determining factor of car ownership decision, particularly developing nations. Rajendran et al. (2022) found that among Indians residing in urban cities, there is increasing awareness of the environmental consequences of car usage and therefore greater concern for environmentally friendly alternatives such as electric vehicles and vehicle sharing. Mensah and Dube (2023) observed that within Addis Ababa, Ethiopia, a growing need for environmental-friendly means of transport has emerged due to environmental campaign activities.

However, systemic barriers are likely to limit these attitudes to action translation. Mwangi and Abdi (2023) in Kenya further contributed that even though the majority of households dread climate change, pragmatic factors such as the unavailability of public transport and affordability of green technology override these attitudes. Wanjiru and Omondi (2025) further contributed that without significant investment in infrastructure, i.e., charging points and cycle lanes, the impact of environmental attitudes on car ownership behaviour will be limited.

Rising Environmental Awareness

Increase in environmental awareness provides an opportunity to developing countries for a change of mobility mindset. Bekele and Tesfaye (2023) noted that special campaigns toward enlightening the citizens, primarily the youth, towards sustainability must be undertaken. Mensah and Dube (2023) demonstrated that including environmental education within the curriculum at Ethiopian schools has helped in developing the demand for green transportations.

Whereas, that is something that needs governmental support. Adeyemi and Balogun (2024) opined that in the absence of incentives by the government for green cars or improved public transport infrastructure, awareness alone would be insufficient to deter people from car ownership. Ngugi and Moyo (2023) also backed that point by asserting that sustained public awareness campaigns, coupled with tangible investment in green mobility, is needed to turn awareness into action.

Table 2: Influence of Environmental Awareness on Car Ownership Decisions

Study	Location	Key Finding
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Bekele and Tesfaye (2023)	India	Awareness campaigns encourage interest in carpooling.
Mensah and Dube (2023)	Ethiopia	Younger populations show interest in eco-friendly transport.
Mwangi and Abdi (2023)	Kenya	Practical needs override environmental attitudes.
Wanjiru and Omondi (2025)	South Korea	Government incentives drive adoption of green vehicles.

Source: Author, (2025)

Systemic Barriers

Systemic barriers form a fundamental aspect in limiting the efficacy of interventions aimed at curbing car ownership in developing countries. Among the barriers they introduce are inadequate infrastructure, inadequate public transport systems, expensive environmentally friendly alternatives, and incompetent policy execution. For instance, Mwangi and Abdi (2023) illustrated how in Kenya, households trend towards car ownership because of the inaccessibility and unreliability of alternatives within public transport systems. Similarly, Adeyemi and Balogun (2024) argued that the lack of government investment in formalising informal transport systems is a driver of overreliance on private cars.

Financial constraints also exacerbate these challenges. Mensah and Dube (2023) observed that throughout their stay in Addis Ababa, Ethiopia, although the younger generations prefer greener choices, electric vehicles are expensive and charging stations are limited, foiling mass implementation. Wanjiru and Omondi (2025) of Nairobi further detailed how structural constraints like traffic and infrastructure impede the use of transport systems among the masses, thus convincing people towards the use of private vehicles. These results show that it will be challenging for most developing nations to shift towards sustainable transport systems without alterations within the system.

Demographic Intersections with Psychological Drivers of Car Ownership

Psychological determinants of car ownership are firmly influenced by demographic characteristics such as age, gender, and level of education. These characteristics not only shape the psychological context in which individuals consider mobility choices, but interact with broader social structures to produce typical patterns of car ownership behaviour.

Age and Psychological Car Ownership Motivations

Age becomes an important factor in determining psychological attitudes toward car ownership. Young people in the urban areas of developing nations tend to equate car ownership with independence, autonomy, and success. Youth in Addis Ababa are most responsive to status and identity signals associated with car ownership (Mensah and Dube, 2023). This observation concurs with the study of Wanjiru and Omondi (2025) in Nairobi, in which younger cohorts perceived cars as both instrumental devices and social capital, commonly attached to expectations of adulthood and achievement.

At the same time, middle-aged individuals, particularly those with household responsibilities, were likely to value the functional and safety aspect of car ownership over symbolic value. In Ghana, Boateng and Opoku (2023) observed that middle-aged individuals valued car ownership as important for managing household responsibilities, such as school runs or eldercare, and reflecting a shift in attitude from symbolism to utilitarianism.

Gendered Dimensions of Psychological Drivers

Gender variation is also vital in shaping psychological determinants of car ownership. In patriarch societies, men's car ownership tends to be connected with masculinity, dominance, and leadership within family units. Okonkwo and Tunde (2023) highlighted the way in which, in Lagos, car ownership raises male standing among peer groups and family units, symbolizing economic capability as well as social power.

Conversely, emerging research indicates increasing psychological importance accorded to automobiles by women, especially in urban areas. Lim and Prasetyo (2023) found that Southeast Asian urban-dwelling women associate car ownership with independence, security, and control of time. This is contrary to past trends where women were comparatively more dependent on collective or family transportation. This shows increasing levels of education and employment among women in urban areas, which optimizes their needs for secure and independent mobility.

Education and Attitudinal Sophistication

Education is also a significant moderator of the psychological drivers' expression in transport choice. Citizens who are more educated will be more advanced in their thinking regarding mobility, balancing symbolic aspirations with environmental concern and attitude towards public transport. Rajendran, Kumar, and Singh (2022) found that Indian city university graduates were more likely to recognize the environmental trade-offs of car ownership and were keen on alternatives such as carpooling and electric vehicles.

But even among educated groups, symbolic and aspirational motives remain strong. As Sorooshian and Salim (2023) have demonstrated, education increases consciousness of sustainability but does not automatically result in sustainable behaviour if public transport systems are perceived as unreliable or unsafe. The conjunction of high education and weak infrastructure thus consolidates car ownership among the urban middle class.

Intersectional Implications for Policy

Understandings of demographic intersections of education, gender, and age with psychological variables provide transport policy and planning with policy-relevant evidence. Interventions to promote safe, new public transport services for young women in cities, for instance, may reduce their use of private cars while addressing gender-related security concerns. Similarly, campaigns among university students stressing environmental awareness can draw on education to promote long-term behaviour change toward sustainable transport.

These may also aim for the development of gender- and age-responsive shared mobility solutions such as family-focused carpooling platforms or young people-specific ride-hailing apps. These interventions would recognize and react to differentiated socio-psychological trends which underpin automobile ownership demand within different demographic categories.

Synthesis and Policy Implications

The findings of this literature systematic review show a complex interplay of infrastructural, social, and psychological determinants of car ownership in low-income countries. Cars are symbolic and functional vehicles, serving practical mobility purposes while also acting as symbols of identity and social status. The dual role means that car ownership is hard to control since interventions must address the aspirational and pragmatic uses of cars. The discussion also underscores the significant role played by public transportation systems in shaping automobile ownership attitudes. For the majority of developing countries, the superiority of informal public modes of transport that are accompanied by congestion, unreliability, and insecurity makes private car ownership an attractive choice, even among financially stressed households. While environmental awareness is starting to function as a potential mobility preference determinant, its impact is limited due to systemic factors such as high costs and the absence of green infrastructure.

The implications for policy and planning are significant. The symbolic value of cars must be addressed as part of any integrated strategy towards managing car ownership. Social and cultural norms equating car ownership with success must be reframed by specific behaviour change interventions. Improved quality and access to public transport needs to be promoted. Without effective and reliable public transport available, efforts to deter the use of automobiles will be in vain. Thirdly, while environmental awareness is important, it must be supplemented by realistic measures in the shape of green car subsidies, investment in infrastructure, and multi-modal transport integration to make eco-friendly mobility an economically viable option for all. Combined, these initiatives can reduce car dependence, ease urban congestion, and minimize ecological harm, creating the possibility for more sustainable and more equitable city transport systems.

POLICY RECOMMENDATIONS

Keeping in mind the convergence of the findings, the following policy actions are recommended in a bid to control the psychological, societal, and infrastructural drivers of car ownership in the developing world. The proposed measures fall within a multi-dimensional approach whose aim is the promotion of sustainable mobility addressing the symbolic and utilitarian functions of car ownership.

Enhancing Public Transport Systems:

The governments should make highest priority the formalization of informal public transport systems, integrating them into regulated systems to increase reliability, safety, and efficiency. Expanding the coverage of public transport to low-covered areas and investing in better infrastructure can significantly improve the user experience. Features such as real-time tracking, modernised ticketing systems, and security features can also improve public confidence and patronage.

Addressing Symbolic Drivers of Car Ownership:

Public awareness campaigns have to aim at countering the social norms that connect car ownership to success and status. By generating awareness regarding collective mobility services such as carpooling and ride hailing platforms as popular alternatives, positioned to offer functional and symbolic alternatives to private car ownership. The services can be best branded such that they are desirable and align with social preference and that also meet basic mobility requirements.

Promoting Sustainable Transport Options:

Subsidies on eco-friendly vehicles, such as electric cars, would help to lower their costs for a greater number of people. Alongside economic incentives, states must invest in the installation of charging stations and other ancillary infrastructure to spur adoption. Integration of green transport modes, such as scooters and cycles, with mass transport systems can enhance the appeal of sustainable mobility even more.

Strengthening Environmental Awareness Campaigns:

Awareness-raising educational programs about the environmental and social costs of car dependency need to be initiated. Principles of climate change and sustainability can be incorporated into school education to foster longer-term behavioural change. Community-based participatory programs can demonstrate the feasibility and desirability of sustainable transport behaviours, building public acceptance of broader policy intervention.

Case Studies of Policy Interventions in Developing Urban Contexts

To contextualize the policy recommendations, this section presents brief case studies that demonstrate how different cities have attempted to manage car ownership through psychological, infrastructural, and symbolic interventions.

Case Study 1: Nairobi – Youth-Focused Ride-Hailing Campaigns (2023–2024)

In Nairobi, an e-mobility pilot by the Green Urban Mobility Network partnered with ride-hailing service operators to green-branded EV fleets with messaging that resonated with young people (Wanjiru & Omondi, 2025). Positioning EVs as "cool" and desirable modes of transport, the initiative made a huge difference, creating awareness, and adoption, especially among youths who have a university education. Incorporating social media marketing with students' mobility vouchers and noticing a rise in 28% shared use of EVs through targeted university districts.

Case Study 2: Accra – Formalization of Informal Public Transport (2022–2024)

In Ghana's city of Accra, the government launched the "Trotro Transformation Program (TTP)" to formalize informal minibuses by installing security measures, automating fare payments, and scheduling the journeys as part of urban planning (Boateng & Opoku, 2023). Public awareness campaigns regarding the efficiency and new-trendiness of improved services assisted in promoting the policy. In a year, 40% of the middle-income commuting commuters interviewed indicated a decline in private vehicle usage, crediting it to the growing trust in the enhanced system.

Case Study 3: Kuala Lumpur – Gender-Sensitive Shared Mobility Infrastructure (2023)

Malaysia's Transport Ministry introduced the "SafeRide for Her" program, targeting working female professionals. It provided pink-zoned electric vans with female captains, panic-button systems, and drop-off points near universities and workplaces (Lim & Prasetyo, 2023). Dubbed not just safer but empowering, the campaign reduced solo rides by 33% among women commuters in pilot areas, boosting shared service confidence.

Case Study 4: Lagos – Status Rebranding Through Public Media (2024)

In Lagos, the municipal government launched a media-led behaviour change programme in the name of "Smart Moves" that depicted high-status individuals choosing mass transport and clean mobility. Led by popular entertainers and opinion leaders, the campaign defied the belief that car ownership is the path to status (Okonkwo & Tunde, 2023). Surveys recorded a 15% rise in positive attitudes towards BRT use among middle-income youths over six months.

These researches demonstrate that interventions aimed at symbolic reframing, enhancing the quality of service, and targeting demographics can reduce car dependency in aspirational urban settings. They also demonstrate the importance of reconciling transport initiatives with psychological motivators and local socio-cultural forces.

Enriching Cultural Nuance through Non-English Sources

While this review has focused on literature in English due to limitations of access and translation, an extension to non-English sources would provide a deeper understanding of car ownership's psychological and socio-cultural dynamics. Countries such as Brazil, China, Turkey, and countries in Francophone Africa have rapidly urbanizing populations in which car ownership holds culturally unique meanings, frequently articulated in literature written in the vernacular.

For example:

Recent Portuguese-language studies from Brazil explore the "autohotel como extensão da identidade urbana" (car as an extension of urban identity) in São Paulo's working-class suburbs.

Mandarin-language research in China discusses "面子文化" (mianzi culture)—the use of car ownership as a tool for gaining social face or prestige.

French sources from West Africa explore the symbolism of imported second-hand vehicles, often called "voitures de rêve" (dream cars), in cities like Abidjan and Dakar.

Including such insights would expand the validity of conclusions and offer nuanced, cross-cultural interpretations that enrich theory and practice alike.

CONCLUSION

This literature systematic review explored the psychological and attitudinal drivers of car purchase in emerging economies. It uncovered a multifaceted interplay of motivations, mediated by symbolic, functional, and environmental drivers. Car ownership in this case is not strictly a practical exercise; it may be a marker of social standing and achievement, symptomatic of deep-seated socio-cultural forces. For the majority of families,

particularly in Sub-Saharan Africa and Southeast Asia, car ownership is a symbol of social mobility and confers respect within society. This symbolic value could be stronger than economic constraints or practical barriers. Alternatively, cars serve functional purposes where public transport is unreliable, unsafe, or unavailable. The findings have highlighted the dual nature of cars as wish commodities and useful commodities. Other important findings from the study are the difficulties of public transport systems in the South.

Informal modes such as minibuses and shared taxis dominate the transport environment but are negatively perceived since they are overcrowded, untrustworthy, and unsafe. These challenges force families to appreciate car ownership, even at a high personal expense. Further, the review indicated a rising awareness of environmental concern, particularly by the youth in urban areas. Whereas dispositions in the environment are bound to be among the causes of mobility choice transformation, systemic limitations like a lack of green infrastructure and outrageously high costs of environmentally friendly vehicles strongly limit their impact. To respond to such complex dynamics, a multi-faceted policy response is necessary. Policymakers and city planners must consider the symbolic, functional, and environmental dimensions of car ownership when designing interventions. Reducing the social norms surrounding car ownership, improving the quality of public transport, and encouraging sustainable mobility solutions are the first steps towards creating equitable and environmentally sustainable transport systems. Implementation of these interventions will help developing countries manage car ownership growth more effectively while promoting overall societal well-being.

RECOMMENDATIONS

From the findings of this review, there are several practical recommendations that emerge. The first is enhancing the quality and range of public transport. Unorganised services need to be brought under organised schemes to make them efficient, safe, and reliable. Governments need to expand the reach of public transport to poorly covered areas and offer better vehicles and infrastructure. These can greatly enhance the public perception of public transport and diminish the attractiveness of car ownership. Making public transport more attractive through better ticketing arrangements, real-time information, and security can also promote the use of public transport.

It is also worthwhile to counter symbolic and psychological reasons for car ownership. Policy can try to rebrand the social value of motor vehicles as an encouragement of collective and sustainable modes of transport. It can draw on aspirational marketing of car-sharing schemes and ride-hailing applications as attractive substitutes for private car ownership. By making them seem new and sexy, policymakers might be capable of leveraging social reasons for car ownership.

Promoting green transport modes is also a major step. The governments must provide incentives for using green transport such as electric vehicles and electric scooters and invest in charging points and cycle lanes. Policy must allow seamless inter-operability between public transport and other transport modes such as cycles and walking routes so that there is a multi-modal transport system to cater to various needs.

Lastly, increasing environmental awareness campaigns can also be an effective means of transforming attitudes. School-based education programs incorporating sustainability and climate change into the curriculum can cause long-term behaviour change. Initiatives based locally can also engage local communities, demonstrating the potential and worth of embracing sustainable mobility practice. Combined with concrete government policy on green transport, these initiatives can bridge the gap between environmental concern and real-life practice.

Limitations and Future Research Directions

Even as this review provides sound insights, it is not perfect. Firstly, focus on new research published between 2022 and 2025 might have overlooked underlying research that also still holds relevance to research on car ownership trends. Secondly, limiting analysis to English-language research denies diversity of opinions and might overlook significant contribution from the non-English-speaking world. Third, this review synthesizes

prior research and not initial empirical findings, which might limit the in-depth nature of its conclusions in specific contexts.

Future research needs to address these shortcomings by conducting longitudinal studies tracking changes in car ownership attitudes and behaviour through time. Such studies could provide a more detailed picture of how socio-cultural and economic shifts impact car ownership patterns. In addition, expanding research into non-English sources would provide access to a greater diversity of cultural and regional viewpoints, particularly from less-represented areas in Latin America, Asia, and Africa. Furthermore, subsequent research has to focus on measuring the effects of specific policy initiatives, such as shared mobility modes, public transport reform, and green transport incentives, based on empirical pilot projects and case studies.

Non-English literature must be included in future research to more accurately reflect international diversity. Collaboration with multilingual researchers and use of translation software can provide access to valuable knowledge in Latin America, Asia, and Francophone and Lusophone Africa. This would provide more complete data on how symbolic and psychological concepts of car ownership vary along linguistic and cultural boundaries.

Final Remarks

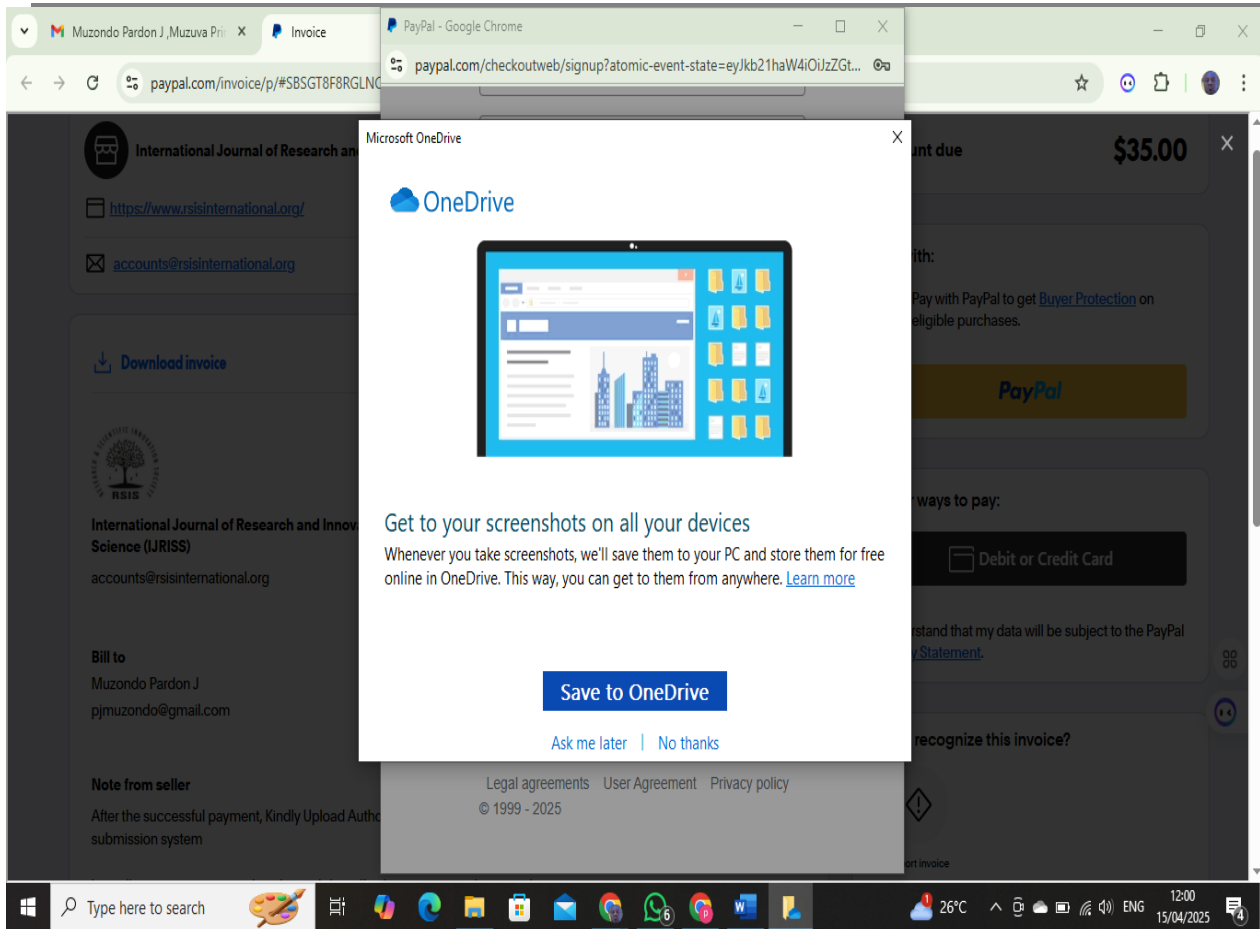
High urbanization and economic growth in developing countries both pose challenges and provide opportunities for management of car ownership. With growing populations and mobility needs, the utilization of private cars has the potential to exacerbate congestion, pollution, and socio-economic inequalities. However, the same challenges also provide an opportunity to redefine urban mobility. By understanding the attitudinal and psychological motivations for car ownership, policy makers can design interventions that address societal norms, improve public transport, and promote sustainable alternatives. This review highlights the importance of adopting an integrated approach that balances symbolic, functional, and environmental issues in pursuit of achieving sustainable mobility in the developing world. Lastly, creating equitable and affordable transport systems is not only a necessity but a cornerstone of inclusive urban development.

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The background page is a PayPal checkout page for an invoice. It shows the amount due as \$35.00 and a "PayPal" button. The page also includes a "Debit or Credit Card" option and a "Legal agreements" section with links for "User Agreement" and "Privacy policy". The footer of the page includes the text "© 1999 - 2025".