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**Suhana KOTING¹, Yong Adilah SHAMSUL HARUMAIN^{2*}, Mohd Ridha MUHAMAD³,
Saznizam Sazmee SINO⁴, Chiaki MATSUNAGA⁵, Akinori MORIMOTO⁶**

INTERGENERATIONAL TRANSPORT HABITS AND CHILDREN'S MOBILITY CHOICES: A STUDY OF CAR-DEPENDENT HOUSEHOLDS

Summary. Public transport has a significant impact on sustainable urban mobility, but how parents travel and how early they expose their children to it are also crucial in shaping their future mobility preferences. This research examines the relationship between children's perceptions and their intended travel behavior, as well as the commuting decisions made by their parents, particularly in car-dependent urban environments. A purposive sample method was employed to collect data online from children aged 13 to 17 years, predominantly from households with significant private vehicle utilization in Malaysia. Feasibility limitations constrained the sample size; however, the targeted methodology for a comprehensive examination of context-specific trends. Structural equation modelling (SEM) was utilized to evaluate the correlations among parental commuting habits, children's self-confidence, and their openness to considering public transportation as a feasible future alternative. The results emphasize the significance of early psychosocial factors on transportation behavior and stress the necessity for strategies that enhance children's awareness and confidence in sustainable mobility alternatives.

1. INTRODUCTION

Effective mobility policy necessitates an understanding of human movement patterns, particularly regarding the safety and mobility of children. Due to children's reliance on their parents, it is typically the parents that determine their transportation to and from school and other locations. These choices are influenced by factors such as accessibility, infrastructure, social status, and convenience, as well as deeply ingrained behaviors and habits. Psychological studies indicate that children are particularly perceptive observers of their parents' behaviors, especially concerning safety measures and preferred modes of transportation. This research examines the interplay between general transportation patterns, the behavioral development of children, and the direct and indirect influences of parents on transportation choices.

¹ University Malaya, Faculty of Engineering; 50603, Kuala Lumpur, Malaysia; e-mail: suhana_koting@um.edu.my; orcid.org/0000-0002-9568-1536

² University Malaya, Faculty of Built Environment; 50603, Kuala Lumpur, Malaysia; e-mail: adilah_shamsul@um.edu.my; orcid.org/0000-0002-3980-532X

³ University Malaya, Faculty of Engineering; 50603, Kuala Lumpur, Malaysia; e-mail: ridha@um.edu.my; orcid.org/0000-0002-2428-1025

⁴ University Malaya, Faculty of Engineering; 50603, Kuala Lumpur, Malaysia; e-mail: saznizam@um.edu.my; orcid.org/0000-0001-5166-0939

⁵ Fukuoka Women's University, Department of Environmental Science; 813-8529, Fukuoka, Japan; e-mail: matsunaga@fwu.ac.jp; orcid.org/0000-0003-2178-2892

⁶ Waseda University, Department of Civil and Environmental Engineering; 169-8555, Tokyo, Japan; e-mail: akinori@waseda.jp; orcid.org/0000-0003-1588-119X

*Corresponding author. E-mail: adilah_shamsul@um.edu.my

From the early 1980s to the 1990s and into the 2000s, significant changes were observed in how children in Malaysia traveled to and from school. This was because schools were becoming farther away from homes due to urban sprawl and the rising cost of housing in the city center. This made parents less likely to rely on public transportation or school buses. The SEM study's structural links indicate that we must address both psychological and environmental barriers simultaneously. Urban planners ought to devise more targeted solutions, taking into account the degree of parental control, perceived risks, and children's confidence in utilizing public transportation. The following conclusion synthesizes these ideas and provides crucial policy recommendations for fostering an intergenerational shift towards sustainable urban mobility. Designing effective mobility policy depends on an awareness of transportation patterns, particularly in view of children's mobility and safety. Due to children's dependency towards their parents, children's everyday transportation including their school commutes is mostly based on parental choice. These decisions are shaped not only by accessibility and infrastructure, socioeconomic level, and convenience but also by well-rooted behaviors and habits. Crucially, psychological studies indicate that children are sensitive viewers of their parents' actions, particularly those related to safety precautions and preferred modes of transportation. The relationships among general transportation patterns, children's behavioral development, and how parents affect and shape transportation decisions both directly and indirectly are investigated in this paper.

In Malaysia, changes in children's commuting patterns were noted from the early 1980s through the 1990s and into the 2000s, as their ability for using public transportation, including school buses, or walking to school, dropped due to the growing distance of schools from residences resulting from urban sprawl, challenges related to housing affordability in the city center, that leads to reduced parental dependence on public transportation or school buses. The structural connections identified by the SEM study highlight the need to concurrently address psychological and environmental constraints. Urban planners should provide more focused solutions based on the extent of parental influence, the perceived risks, and children's confidence in taking public transportation. These ideas are synthesized in the following conclusion, which also provides important policy suggestions for fostering an intergenerational change towards sustainable urban mobility.

2. LITERATURE REVIEW

In transportation, habits are defined as automatic behaviors evolved by repeated acts in stable surroundings [1]. For example, regularly driving a car to school drop-offs develops a habit that resists change even when public transport or walking becomes an option. [2] claim that habits develop by a mix of frequency and stability of the context; thus, repeated exposure to a particular mode of transportation strengthens habitual behavior, independent of possible environmental or health benefits connected with other choices. Affective assessments, social conventions, and perceived behavioral control also influence transportation patterns [3]. For instance, those who believe public transportation is dangerous or unreliable may struggle to develop new routines around its use. Studies have revealed that while deciding on transportation, parents frequently balance perceived safety, convenience, and control [4]. This is especially pertinent in homes with young children, where parents' concerns about mishaps or stranger exposure drive people to choose private cars over walking or public transportation [5]. Regular behavior in stable and predictable surroundings typically shapes transportation patterns. [1] claim that these behaviors become automatic over time and usually endure even in the face of better or more sustainable substitutes. For instance, when parents regularly drop their children off at school using a private car, the behavior progressively shifts into a habit that resists modification, regardless of other choices, such as walking or using public transportation. This habitual dependence on the car is firmly ingrained in the psychological processes of habit development rather than only a result of convenience.

[2] underline even more how crucial the twin components of frequency and contextual stability are in supporting habitual actions. In transportation, this suggests that constant geographical and temporal pattern of repeated exposure to a given mode guarantees the default response behavior. This process is unrelated to the conscious evaluation of environmental or health benefits that could otherwise inspire a modal change. Even in situations when public transport or walking are easily available and beneficial,

the ingrained character of vehicle use often rules. As the theory of planned behavior [3] suggests, emotive reactions, social conventions, and perceptions of behavioral control all contribute to shaping and sustaining transportation routines. For example, a parent's emotional connection to comfort and safety associated with private car use can override their cognitive awareness of the advantages of public transportation or walking. Likewise, social expectations, such as the supposed norm of driving children to neighborhoods, help to solidify the behavior.

Often driven by a complex matrix of risk perception, convenience, and a need for control, parental transportation behavior is influenced, according to [4], by the apparent safety and feasibility of various travel options, which greatly affect choices about school travel. [5] builds on this by demonstrating how worries about children's vulnerability, ranging from traffic accidents to stranger encounters, usually direct parents towards the use of private vehicles. Daily activities can become ingrained in these emotional and protective reflexes, so complicating efforts to promote modal changes towards more sustainable and active travel choices. Ultimately, changing transit choices requires more than just offering substitutes. Interventions must target both the affective and normative systems that support habitual behavior, as well as address its psychological foundations. This might include institutional initiatives that lower perceived risk and boost public transportation system confidence, community efforts that reinterpret societal conventions, or environmental design that supports active commuting.

From a young age, children begin to acquire transportation-related behaviors, which often reflect the behaviors of their parents [6]. Rooted in observational learning, a fundamental component of social cognition theory, this modeling process occurs in children as they acquire behaviors by observing and copying important adults, especially parents. Children's knowledge of road safety, traffic rules, and their sense of risk are highly related to the cues and behaviors their parents exhibit during travel, as [7] have observed. Children are highly sensitive to their parents' choices and attitudes. Psychological studies indicate that children as young as five can create mental frames or schemas depending on consistent parental behavior [8]; [9]. Regarding transportation, these schemas can include "driving is normal," "public transport is unsafe," or "walking is only for short distances." Children's inclination to walk or cycle was found to be highly correlated with their parents' opinions about active transport in a [10] study. In a similar vein, [11] demonstrated that parents who themselves walk or bike are more likely to encourage and inspire their children to do the same. On the other hand, if children observe their parents exhibiting nervous or risk-averse behavior, such as avoiding public transport due to worries about crime or discomfort, they may absorb these attitudes and adopt similar means in the future. Children's cognitive and emotional reactions to travel also depend on parental communication regarding safety, faith in community infrastructure, and perceived self-efficacy in using various forms of transportation [12]. Consistency between spoken directions and imitated behavior enhances attitude transfer. Children are less likely to engage in the behavior if, for instance, a parent promotes walking to school but never does it herself. Studies on the psychology of habit development in youngsters show that regular routines, such as daily commutes to school, can produce preference patterns and subsequent behavioral inertia [13]. Growing up in a vehicle-dependent home increases a child's likelihood of seeing car travel as the default or better means of mobility, which will follow into adulthood. Choosing public versus private transport is based on psychological and social logic as much as practical considerations. Time pressure, job expectations, historical events, and cultural standards all shape parents' behaviors [14]. Middle-income parents, for example, might drive their children to school not merely for convenience but also to satisfy society norms of responsible parenting [15]. Cognitive dissonance theory also suggests that if a habit, such as driving, becomes internalized, parents may justify their behavior even in the face of data supporting alternative ways by emphasizing safety or time efficiency [16]. Children then receive these explanations, which help to shape their choices and actions. Interestingly, many parents change their preferred mode of transportation when they are exposed to regimented programs that encourage walking or cycling, such as "Safe Routes to School," [17]. These initiatives reframing parental attitudes and make non-driving solutions seem more feasible via psychological nudges and social norm methods. Designing treatments requires an awareness of the entwined character of parental behaviors and children's impressions. Promoting long-term behavioral modification can be greatly aided by encouraging parents to consider their own behaviors and the signals they provide to their children. Policymakers and urban planners should also give much thought to the need of offering infrastructure that encourages parental

trust in public transport or walking. Reliable buses, well-lit sidewalks, clear crosswalks, and community-based travel training can change views of safety and accessibility, thereby lessening reliance on private vehicles [18]. Programs that educate parents and children simultaneously in schools have shown success. Reverse influence on parental behavior can also occur through a phenomenon called "child to parent transmission" of environmental values, where arming youngsters with road safety knowledge and motivating them to advocate for walking or cycling [19].

Early-life exposure to autonomous mobility and spatial navigation is underlined in behavioral development literature as crucial. Active travel helps youngsters not only improve their physical and mental health but also their spatial awareness, confidence, and decision-making skills, according to studies by [20]. Without these events, especially in mobility, children could develop behaviors that prioritize dependence over autonomy. Promotion of sustainable behavior in adulthood depends on early interventions. One example of local authorities in Malaysia that has followed the ideas of a Child-Friendly City (CFC) is Petaling Jaya (PJ). Early in the 2010s, the Petaling Jaya City Council (MBPJ) started its child-friendly agenda inspired by UNICEF's worldwide CFC framework. Safe mobility, access to education, leisure activities, inclusive decision-making, and safe public areas for children are core goals. To increase pedestrian safety, local authorities can conduct safety audits on school paths and engaged participatory planning projects with nearby businesses. At important school zones, zebra crossings, traffic-calming devices, and better signage were among such examples installed. Through interactive seminars, local authorities should also collaborate with child rights advocates and community-based groups to gather direct feedback from children. This participatory strategy aligns with UNICEF's CFC values, which support children's right to voice their opinions on issues that affect their lives.

Furthermore, initiatives to scale up the child-friendly agenda across policies on transit, accommodation, and urban development are still in early phases. Still, the local authorities of Petaling Jaya's CFC effort demonstrate how feasible it is to incorporate children's needs into municipal design and provide a great template for other Malaysian cities. In addition, Japan already presents a paradigm of policy-integrated behavioral planning, whereby infrastructure investment, neighborhood design, community participation, and mobility education work together in Parents-Teachers Association (PTA) initiatives. UNICEF Japan and a coalition of local governments eager to incorporate child-centric principles into municipal governance are involved in Japan's participation with the Child Friendly Cities Initiative (CFCI). Five municipalities, including Niseko Town, Abira Town, Tomiya City, Machida City, and Nara City, were formally chosen as pilot towns for the complete deployment of CFCI by 2021. These cities were selected based on their demonstrated commitment to inclusive planning, children's rights, and safe metropolitan environments. The CFCI program in Japan stands out primarily for emphasizing the active involvement of children in municipal planning. Young people routinely participate in town hall meetings and seminars to provide their opinions on public areas, neighborhood security, and community architecture. Children helped design public rest places and signage in Niseko Town, for instance, so ensuring that the built environment reflected their points of view. The integration of disaster-resilient infrastructure planning is another key element of Japan's CFCI approach. Many towns institutionalized children's participation in school evacuation preparation and catastrophe risk reduction following the Great East Japan Earthquake in 2011. In Japan, readiness is viewed as a regular civic obligation deeply ingrained in institutions such as schools and supported by national narratives of resilience. The study contends that this kind of readiness is not only technical but also a kind of cultural production that develops children's emotional resilience, agency, and collective identity. [21] emphasizes how "playing through disaster" may both empower and normalize coping with risk in uncertain times. Children in Abira Town and Nara City helped redesign buildings that are resistant to earthquakes and tsunamis, demonstrating how inclusive and technically competent urban safety planning can be. Japan's experience emphasizes that creating a child-friendly city is not only about offering the necessary infrastructure; it also requires cultural dedication, institutional alignment, and regular engagement of children's voices in planning procedures.

Community involvement to enable safe walking paths for children to school was already well-established before the CFCI began in Japan. Each morning, volunteer crossing guards, often retired residents or family members, take turns monitoring intersections to ensure the safety of children in

numerous municipalities [22]. Working with local governments, parent-teacher organizations (PTAs) also create neighborhood "safety maps" and identify "safe-zone" homes where children may seek help, hence strengthening the communal safety infrastructure [22]. Japanese parents often ride public transportation, either buses or trains, or cycle alongside their children to stations or schools. A 2020–2021 study in Chiba Prefecture showed that almost 80% of elementary school students walked daily, indicating that walking and cycling remain the primary forms of school transportation. This was highly correlated with local social cohesion, perceived safety, and the proximity of schools to residential areas [22]. This trend aligns with general cultural norms in Japan, which encourage children's independence and navigational abilities by promoting active, public transit use from a young age.



Fig. 1. Picture shows Japanese children walking to school along with adults showing walking to school and work as a norm in Japan. (Source: Author's picture)

3. RESULTS & DISCUSSION

This study analyzed the transportation behavior of 120 youngsters, including 104 participants from Malaysia and 16 participants from Japan. A purposeful sample strategy was employed to concentrate on subgroups pertinent to the study's objective of elucidating children's movement patterns within two diverse cultural and infrastructural environments. The disparity in sample size between the two countries illustrates feasibility limitations, such as restricted access to Japanese families and dependence on online survey distribution, which diminished the potential for a broader respondent base. Nonetheless, purposive sampling was deemed suitable as it facilitated a focused examination of comparative trends between the two countries. Although the smaller Japanese sample makes it more challenging to apply the results to other groups, it nevertheless provides useful information and highlights new trends that can help shape future, larger studies. In cross-cultural research, variations in sample sizes are prevalent; validity can be maintained through uniform data collection methodologies and openness on these constraints.

This study carefully analyses the outcomes while keeping these factors in mind. The demographic profile of the respondents indicates that 79 girls (66%) and 41 boys (34%) participated, with all respondents aged between 13 and 17 years. In the Malaysian group, 97% reported that their families owned at least one private car, indicating the country's significant reliance on cars. In contrast, Japanese respondents indicated everyday access to secure and dependable public transit, highlighting Japan's long-term investment in integrated transport networks that facilitate children's independent movement. These demographic insights furnish the essential context for elucidating the disparities in transportation preferences between the two nations and establish a basis for the ensuing examination of behavioral patterns, cultural impacts, and policy ramifications. This study utilized a structural model consisting of four primary latent constructs to examine children's travel behavior and the psychosocial factors

affecting their transportation decisions: (i) Parental Influence (*parinf*), (ii) Perceived Barriers (*perbar*), (iii) Familiarity and Confidence (*famcon*), and (iv) Future Preferences (*futpre*). These concepts were operationalized through a structured questionnaire developed from previously validated instruments and refined for contextual relevance. The design was driven by behavioral theories, including the theory of planned behavior [3] and the habit formation framework [28], ensuring theoretical alignment and construct validity.

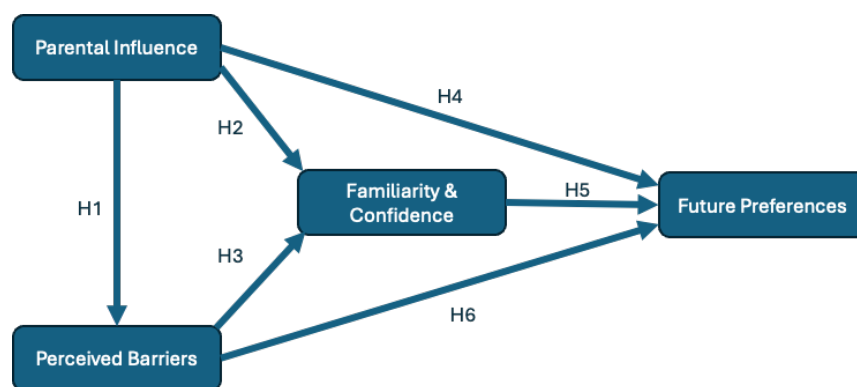


Fig. 2. Hypothesis framework

Principal component analysis (PCA) was used to investigate the dimensionality and measurement model robustness. With a cumulative 55.06% of the overall variance accounted for, the PCA results showed that most items loaded onto their expected constructs, a reasonable outcome in a behavioral study, including several latent variables. Additionally, items *parent1* and *parent2* were eliminated since their factor loadings were low (< 0.4). Their absence enhanced the general factor structure and internal consistency, thereby better aligning the model with the suggested psychometric criteria [26]. Average Variance Extracted (AVE) was used to evaluate constructive convergent validity. Future preferences (*futpre*) and familiarity and confidence (*famcon*) both attained AVE values above the allowed threshold of 0.50, suggesting that the indicators for both constructions fairly capture the underlying latent ideas. *Parinf* and *perbar*, however, noted AVE values below the threshold, implying perhaps conceptual overlap or item misalignment. These results suggest that items reflecting parental standards, and perceived structural or environmental constraints require more improvement. Future research should consider revising the item pool or reinterpretation to more fully reflect these aspects.

The internal consistency reliability assessed by Cronbach's Alpha (α) and Composite Reliability (CR) was within reasonable boundaries (> 0.7), showing that the retained items show steady internal coherence even if AVE for some components was limited. This implies that the constructions themselves are still significantly and consistently measured, even if some objects may lack high convergent loading. We used the Heterotrait-Monotrait (HTMT) ratio of correlations to evaluate discriminant validity. With HTMT values below the cautious threshold of 0.85 [27], results from the Malaysian subset and the complete sample revealed no problems of multicollinearity. However, the Japanese selection revealed high HTMT ratios between perceived obstacles and parental influence, indicating some conceptual confusion in that sample. Using item bundling, a merged construct, *ParBar*, was developed to describe a latent dimension that captures the connectivity of parental control and environmental constraints in the Japanese setting. This phase maintained statistical validity and reflected cultural variations in parental authority and trust in infrastructure. The model design demonstrates general methodological rigor in striking a balance between empirical fit and theoretical integrity. The results support the application of a refined four-construct model in cross-cultural transportation studies, as well as the need for contextual validation when using standardized measurement instruments across diverse sociocultural environments. On the other hand, children from metropolitan or suburban backgrounds especially are ingrained in a car-oriented physical environment that promotes early reliance on private vehicles.

The almost ubiquitous automobile ownership among Malaysian households in this study complements current research, which shows that inadequate public transport networks are either a cause

or a consequence of car dependency. As [1] propose, repetitive behavior in a stable environment result in habit development; daily experience of being taken to school by automobile essentially shapes Malaysian youngsters to see this mode as default. Behaviorally, the differences in early travel experience between the two groups set the stage for different long-term mobility habits. Studies in transportation psychology [28] indicate that unless aggressively challenged by major life events or structural changes in the travel environment, habits developed in adolescence are likely to persist into adulthood. Therefore, although Malaysian children may grow to support and spread car-oriented travel behavior throughout their adult life, the everyday interaction of Japanese children with public transport may foster a more sustainable and independent mobility attitude.

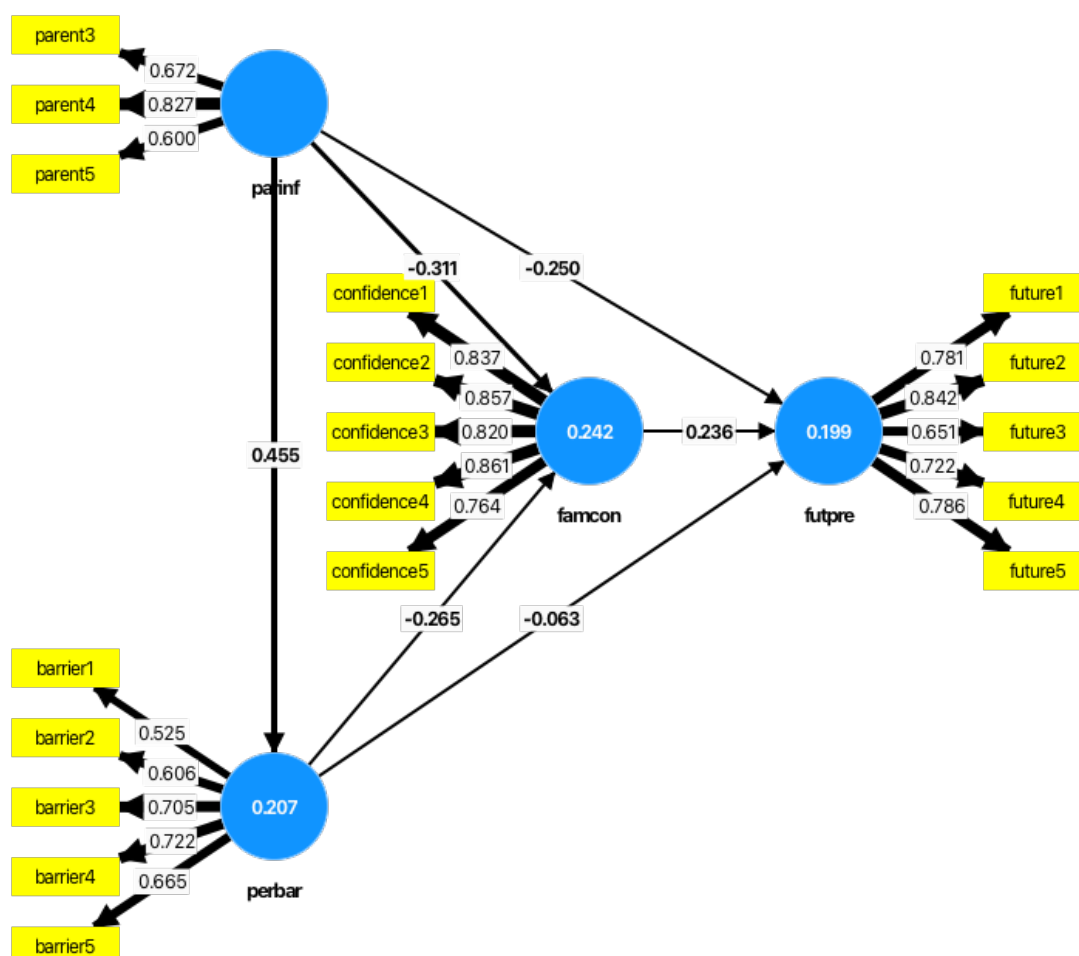


Fig. 3. PLS-SEM model for Complete dataset

Interesting ramifications for experience and attitudes also follow from gender distribution. Although the sample has a female majority, it would be interesting to investigate whether gender moderates travel independence, especially considering that girls in many settings face more constraints due to parental safety concerns [29]. Future studies could probe whether, although living in the same house or city, female respondents in both nations report different experiences or attitudes towards walking, cycling, or transit usage. All things considered, the demographic and contextual data in this study are not only descriptive; they are also fundamental for understanding the evolution of behavior related to transportation. The significant difference in the household mobility contexts of Malaysian and Japanese children highlights the broader structural and cultural factors influencing travel decisions. This distinction highlights the importance of early life exposure in shaping lifetime mobility patterns and helps one understand the challenges of transitioning to more sustainable modes in areas dominated by cars, as illustrated in the figures.

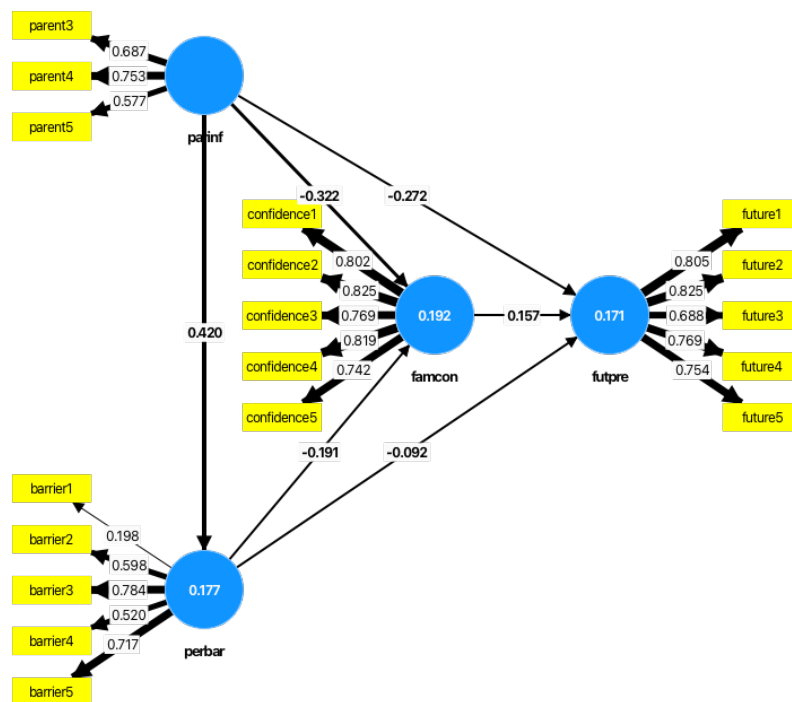


Fig. 4. PLS-SEM model for Malaysia dataset

Structural Model Findings and Hypothesis Testing

This study employed partial least squares structural equation modeling (PLS-SEM) as the primary analytical technique, as it is suitable for exploratory and theory-building research with small sample sizes, non-normal data, and complex model structures, including latent constructs [26]. PLS-SEM emphasizes prediction and variance explanation, unlike covariance-based SEM, which focuses on model fit and is therefore ideal for behavioral research when the primary goal is to evaluate causal links between constructs and explain variance in endogenous variables. The measurement model was assessed based on reliability, convergent validity, and discriminant validity:

- **Reliability:** All constructs demonstrated acceptable levels of internal consistency, with Composite Reliability (CR) values ranging from 0.701 to 0.842, exceeding the minimum threshold of 0.70 (Nunnally & Bernstein, 1994).
- **Convergent Validity:** Evaluated using Average Variance Extracted (AVE), two constructs—Familiarity and Confidence (AVE = 0.572) and Future Preferences (AVE = 0.603)—met the acceptable cutoff value of 0.50. However, Parental Influence (AVE = 0.438) and Perceived Barriers (AVE = 0.412) fell slightly below this threshold, indicating room for improvement.
- **Discriminant Validity:** Assessed using the Heterotrait-Monotrait Ratio (HTMT). While most constructs met the criterion (<0.85), the Japanese subset showed elevated HTMT values between Parental Influence and Perceived Barriers, leading to the creation of a merged construct (ParBar).

After confirming the measurement model, the structural model was evaluated to determine the strength and significance of the hypothesized relationships.

With a R^2 value of 0.399 for Familiarity and Confidence, Parental Influence and Perceived Barriers accounted for more than 40% of the variation in this measure. The R^2 score for Future Preferences was 0.478, which means it wasn't very good at predicting. These results emphasize the importance of early psychosocial factors in influencing mobility behavior and the role of confidence as a primary mediator. When comparing Malaysian and Japanese subgroups, the strength of path coefficients changed; in the Japanese group, familiarity and confidence had a bigger mediating influence. These emphasize the cultural variations in how young people perceive infrastructure and independence, highlighting the importance of tailoring treatments to meet specific cultural contexts when promoting

sustainable mobility habits. PLS-SEM provided robust insights into the structural relationships between psychological and behavioral elements affecting youth travel patterns. The model confirmed that confidence and familiarity diminish the relationship between parental norms and long-term travel aspirations. Despite measuring limitations in certain areas, the model establishes a robust foundation for subsequent research on behavioral mobility, particularly in cross-cultural contexts. In the Malaysian context, the findings of this study highlight a significant tendency of intergenerational influence on children's travel behavior. Children who lived in families where they had to rely on cars often had less confidence and knowledge about public transportation, which made them much less likely to want to use these kinds of transport in the future. This corroborates the established theory of observational learning and behavioral modeling proposed by [6], which posits that children acquire behaviors through the observation and imitation of parental acts, especially in consistent, emotionally salient contexts where such behaviors are frequently exhibited.

Table 1

Structural path analysis results

Hypothesized Path	Beta (β)	t-Value	p-Value	Result
Parental Influence → Familiarity and Confidence	0.302	3.918	<0.001	Supported
Perceived Barriers → Familiarity and Confidence	-0.289	2.574	0.010	Supported
Familiarity and Confidence → Future Preferences	0.511	7.342	<0.001	Strongly Supported
Parental Influence → Future Preferences	0.151	1.882	0.060	Marginal
Perceived Barriers → Future Preferences	-0.112	1.423	0.156	Not Supported

In this context, the daily parental practice of transporting children to school, a common occurrence in urban Malaysia, signifies not only parental inclinations but also establishes a normative behavior that children internalize. When repeated over time, these acts align with habit formation theories [1], which emphasize the development of automaticity through recurrent behavior in conducive environments. So, even if there is public transportation, parents who don't use it are taking away their children's chance to learn about it and feel safe using it independently. The Japanese environment, on the other hand, is a good contrast. From a young age, public transportation is encouraged by schools and accepted by society as the primary means of getting to school. Children often ride buses or trains without an adult watching them because there are safe ways for them to walk, organized transit timetables, and a social structure that encourages independence in kids. Intergenerational modelling still happens in Japan, but the impacts are different. Japanese children already have a great deal of confidence in public transportation, as they are quite familiar with it and trust the system. However, parental modelling doesn't have much of an effect. In other words, in well-functioning transport ecosystems, cultural and infrastructure support make kids less reliant on their parents and help them grow more naturally independent.

In Malaysia, however, numerous social and environmental factors make it easier for parents to choose to drive their own cars. These are:

- Safety problems include road dangers, fear of crime, and not enough safe places for pedestrians to cross.
- Delays, poor connections between different modes of transportation, and unequal scheduling show systemic unreliability.

Limited pedestrian infrastructure makes it more difficult to get around on foot in hot or wet weather, which in turn makes people less likely to walk. These diseases not only change how parents act, but they

also make it harder for kids to use public transport on their own by making it harder for them to deal with psychological and practical problems. So, even though public transport is available, many don't think it's a good or socially acceptable choice. This illustrates a feedback loop in which restricted child mobility due to insufficient infrastructure arises from parental anxiety driven by inadequate infrastructure, thereby hindering experiential learning and fostering long-term automotive dependency. This intergenerational dynamic highlights the interaction between macro-level infrastructure and cultural standards, influencing micro-level household decisions, and resulting in varying outcomes in children's mobility behavior. It demonstrates that promoting the use of sustainable and autonomous transport among youth necessitates structural modifications in infrastructure, legislative reform, and a cultural shift in parental attitudes, rather than relying solely on behavioral interventions. This kind of comparison between countries shows how deeply rooted structural and cultural elements can either support or hurt the growth of habits and behavior over many generations.

4. CONCLUSIONS

The results of this study reveal a clear intergenerational pattern in transportation behavior, where their parents' habits and impressions significantly influence children's mobility preferences. Malaysia's high reliance on private vehicles has led to a generational cycle of car-oriented behavior, driven by concerns over safety, convenience, and inadequate public transit infrastructure. On the other hand, in Japan, the acceptance of early childhood public transport helps retain autonomous travel habits among young individuals. These differences reflect deeper policy, cultural, and infrastructure systems rather than being accidental. Supported by community behaviors and educational institutions, Japan's urban transport strategy, for example, clearly addresses children's needs by safe, integrated, and universally accessible design. [30] Demonstrate how Japan's urban environment, which includes walkable neighborhoods, integrated public transportation, and legally shared pedestrian and cyclist pathways, promotes active commuting for all age groups, including children. These rules help to create a society in which cycling and walking are accepted, allowing young people to move safely and alone. Crucially, such legal rules and infrastructure also influence parental impressions, thereby fostering confidence in the surroundings and lowering the demand for car-based school trips. This setting illustrates how favorable physical and policy environments can influence parental behavior as well as child mobility. Aligning closely with the concepts covered in this work, Khaleghi [31] offers an insightful analysis of how environmental, social, and psychological factors impact the travel behavior of junior high school students in rural Japan. Distance, parental attitudes, safety perceptions, and past independent travel experience all significantly affect mode choice, according to their study? These results support the argument that social conventions and emotional security, particularly parental trust, also influence children's mobility patterns, rather than just the availability of infrastructure. Therefore, policy needs to extend beyond just hardware and incorporate "mobility socializing," which is a combination of public stories, education, and personal experiences. There is a growing recognition for the benefits of scheduled school travel, inspired by Japan's successful "Walking to School" program, which includes route reviews and adult-supervised walking groups. These programs not only help kids learn how to go around on their own, but they also teach them how to commute safely at a young age. It is also very important to include transport literacy in the national education curriculum, so that children may learn how to safely and responsibly use buses, trains, and pedestrian infrastructure. In addition to these efforts, targeted public campaigns should be launched to influence how people perceive public transit, making it seem like a modern, desirable, and safe option, especially in cities where the population of young people is growing rapidly. This study highlights the crucial relationship between parental transportation behavior and children's future mobility decisions, while also demonstrating that children can influence their parents' behavior through educational experiences. The results indicate that Malaysia's car-dependent behaviors may not be solely attributed to tradition. Instead, they may be caused by structural problems, a lack of public transportation services, long journey durations, and poor first- and last-mile connections, which provide parents with few good options. Japan, on the other hand, has a long history of public transportation that provides children with safe and reliable options, allowing them to move around

independently from a young age. To promote sustainable mobility, Malaysia needs to address not only people's behaviors but also structural problems. This can be achieved by increasing the availability of public transit, enhancing the safety of walking and biking, and giving parents greater confidence in their children's ability to travel alone. To lower CO₂ emissions and inspire future generations to view public transportation as the best option, it will be essential to transition from a "reactive" to a "preventive and empowered" approach to mobility.

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