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SOCIAL NORM AND ENVIRONMENTAL CONCERN AS THE PREDICTORS OF CITIZENS' ACTUAL BEHAVIOUR TO ADOPT PUBLIC TRANSPORT IN TERENGGANU, MALAYSIA

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Abstract

The increasing penetration of private motor vehicles for commuting demonstrates an astonishing vehicle reliance in Malaysia. The use of public transport could provide a promising alternative by enabling accessibility, reducing congestion and fatalities, and mitigating environmental problems especially in densely populated areas. However, the utilisation of public transport does not depend only on the intention but the actual use as well. Understanding individuals' readiness to adopt public transport are critical for improving sustainable mobility. Based on the theory of Interpersonal Behaviour (TIB), this study aims to assess the individuals' behavioural readiness to use for public transportation to improve sustainable mobility instead of using single-occupancy vehicles in Terengganu, Malaysia. This quantitative survey is distributed on 200 citizens at four densely-populated locations in cities of Terengganu, namely Kuala Terengganu, Chukai, Dungun and Jerteh. Data analysis is analysed using structural equation modelling of partial least squares (PLS-SEM). The empirical results indicate that social norm and environmental concern are the main predictor that affecting the behavioural readiness on adopting public transport among the respondents. However, perceived value and affective construct do not have significant impact on citizens' readiness to use public transport. Policy implications like enhancing service quality, promoting environmental benefits and implementing visible safety measures are addressed. As cities continue to invest in and prioritize public transport, they contribute to a more sustainable and resilient transportation landscape.

Keywords: Environmental concern; Public transport; Social norm; Environment; Sustainability

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INTRODUCTION

The imperative task of reducing private car usage and promoting public transportation is fraught with challenges when it comes to addressing urban transport issues. In Malaysia, only 16% of commuters currently rely on public transport due to its unreliability and insufficiency, leading to dissatisfaction among users (Rahman and Abdullah, 2016). In contrast, private motor vehicles, especially cars, dominate transportation, constituting 47.3% of the 33.3 million registered vehicles in 2021 (Chan, 2022). This overdependence on private vehicles aggravates traffic congestion, notably in densely populated areas like Kuala Lumpur, where drivers lost around 170 hours per year in heavy traffic in 2019 (TomTom Traffic Index).

The escalating trend in private vehicle ownership raises alarming concerns about environmental sustainability. In 2018, the transport sector in Malaysia contributed a significant 28.8% of carbon dioxide (CO2) emissions from total fossil fuel combustion, surpassing the global average of 24.5% (IEA, 2019). This is worsened by the rapid sectoral growth that relies heavily on transportation, namely tourism where the conversations have long been held to achieve optimal balance between the three pillars of sustainability of social, environment and economy (see Azinuddin et al., 2022). Therefore, recognizing the crucial importance of promoting public transport as a viable mode is essential to address the prevalent dependence on private cars in Malaysian urban areas and contribute to sustainable development efforts.

Terengganu, situated on the east coast of Peninsular Malaysia, is a state with a diverse economic foundation, deriving strength from the oil and gas industry, fisheries, and tourism. In 2019, the state's population stood at 1.25 million, experiencing an average annual growth rate of 2% (Department of Statistics Malaysia, 2020). The state is currently undergoing robust socio-economic development, diversifying into sectors like bioeconomy and agribusiness. With a targeted goal of attracting RM26 billion in private investments by 2025, this initiative aims to generate 36,600 employment opportunities and foster the emergence of 15,550 new local entrepreneurs (ECER, 2020). However, the rapid increase in Terengganu's population has paralleled a substantial surge in private cars in recent years.

From 2010 to 2018, the number of registered motor vehicles in Terengganu increased by 646,013 units (+50%) (Malaysian Automotive Association, 2018). The rising number of vehicles in the state, driven by competitive prices of national and foreign vehicles, signifies a remarkable dependence on private vehicles. This surge, compared to the population, underscores a significant challenge in encouraging public transport adoption among Terengganu residents. Therefore, understanding the factors influencing

residents' adoption on public transportation, such as bus services and taxis, is crucial amid the state's robust socio-economic development.

Previous research consistently affirms that intentions reliably predict subsequent behaviour (Ajzen, 1991; Gollwitzer, 1999). The established notion of a linear causal relationship between intention and behaviour posits that intention alone is sufficient for behaviour prediction. Notably, interventions utilizing incentives to bolster the intention to transition from using private vehicle to adopting public transportation have shown success in temporarily increasing its usage (Redman et al. 2013). For instance, providing fare structures that are competitive with private transport costs via subsidy mechanism may attract the individuals to adopt public transport. However, it is crucial to note that this behaviour tends to regress once the incentives are withdrawn. This phenomenon may elucidate why past intervention programs built on the intention-behaviour causal relationship have not resulted in a sustained shift from private vehicle to public transport adoption. (Chan et al. 2018).

Contrary to the prevailing assumption that intention invariably leads to overt actions, scholarly investigations, particularly those conducted by Gollwitzer (1993, 1996, 1999), posit that intention functions as a precursor to what is conceptually termed as behavioural readiness. A thorough examination of literature reinforces the pivotal role of intention in the cultivation of behavioural readiness, recognized as the proximal determinant of action according to Heckhausen's work (1991). This behavioural readiness, distinguished by its self-initiated and volitional properties (Heckhausen & Gollwitzer, 1987), denotes a proactive and deliberate shift in behavioural patterns. Within the domain of transport behaviour, actions stemming from volition demonstrate a more auspicious potential for inducing a discernible shift in commuting patterns within the Malaysian context, surpassing the impact of behaviour motivated solely by external incentives.

Hence, the primary aim of this study is to investigate the factors influencing public transport readiness among citizens in Terengganu, Malaysia. A thorough understanding of these determinants has the potential to guide policy formulation and assist public transportation providers in enhancing their current services. Furthermore, insights from this research can aid key stakeholders in developing more effective strategies to encourage the adoption of public transportation. This strategic shift has the potential to improve environmental sustainability (Mustaffa et al., 2023; Saad et al., 2023), and contribute to the overall health and well-being of the local population. Notably, a significant reduction in private vehicle ownership emerges as a viable mitigation measure in response to the increasing trend of private vehicle acquisition in Terengganu.

The subsequent sections of this paper are structured as follows: The following section provides an overview of the pertinent theoretical background.

Section 3 outlines the methodology of the study, encompassing details on the practical test, procedure, survey content, and the analytical approach employed. Section 4 elucidates the obtained results. Finally, Section 5 offers key conclusions and discussion points, incorporating considerations of limitations and practical.

LITERATURE REVIEW

The Theory of Interpersonal Behaviour (TIB, Triandis, 1980) is a widely employed framework for comprehending user acceptance, notably in the domain of transport behaviour. Within the TIB framework, intention, serving as the primary determinant of behaviour, signifies an individual's preparedness to engage in a specific behaviour. This intention is intricately influenced by three critical factors: 1) cognitive evaluations, reflecting individual thoughts and preferences regarding public transport services, 2) social norms, encompassing societal perceptions and endorsements of public transport, and 3) affective factors, encapsulating the emotional responses elicited by the contemplation of a specific behaviour.

TIB has been employed numerous times to assess and understand public transport behaviour. Mifsud et al. (2019) conducted an examination of the psychological determinants influencing the mobility of older individuals in Malta. The study found that the mobility of older people is primarily motivated by their intentions, which, in turn, are significantly influenced by prevailing social norms and pressures from specific reference groups. Moreover, the results underscore the considerable impact of intentional cognitive processes on mobility, surpassing the influence of habitual behaviours. In a separate investigation, Kang et al. (2019) identified predictors of drivers' intentions to transition from car driving to public transport. Their research revealed that factors such as convenience, commute impedance, and flexible service significantly influence the intention to adopt public transport. Subsequently, Kang et al. (2020) conducted a study aimed at measuring the propensity of individuals to switch from single-occupancy vehicles to reduce carbon emissions. The outcomes indicated that the desire for comfort and convenience played pivotal roles in predicting both intention and implementation intention to utilize public transport in Malaysia. Hence, in this study, we investigate the role of perceived value, social norm, affective and environmental concern to examine their influences on behavioural intention to use public transport in Malaysia. In addition, this study also hypothesizes that behavioural intention, is the main antecedent of behavioural readiness to use public transport among citizens in Malaysia.

Perceived value

The role of perceived value in shaping the public transportation utilisation is a significant aspect highlighted in the literature. Perceived value, a crucial factor,

arises when consumers make a comprehensive judgment about a product's worth, considering the balance between benefits gained and sacrifices made. An extensive literature review underscores the substantial impact of perceived quality and value on user satisfaction, subsequently influencing behavioural intention within the domain of public transportation. Furthermore, an additional inquiry establishes a positive correlation between perceived value and behavioural intention, wherein patrons of public transit assess the likelihood of sustained usage and express a proclivity to recommend the service to others (Lai and Chen, 2011). In the adoption of public transportation, individuals may associate perceived value with a preference for comfort, particularly if they are accustomed to the comfort provided by single-occupancy vehicles. Conversely, comfort in public transport is contingent upon the availability of sufficient seating (Wilson, 2011). Beckman (2013) advocates for an increase in bus ridership by minimizing standing duration and the number of standees during bus trips. Additionally, the cleanliness of public transport emerges as a crucial factor influencing comfort (Minhans et al., 2020). Another study posits that the presence of air-conditioning in public transport contributes to an increased intention to use such services (Curries and Wallis, 2008).

Limited literature explores the correlation between convenience and service quality in public transport. Notably, the implementation of an integrated ticketing system with smart cards is identified as a convenience factor that promotes the use of public transport (Kang et al., 2019). Furthermore, perceived value can be derived from perceived convenience, such as the availability of internet onboard, audio notifications for specific stops, and electronic text displaying destination signs at each station (Currie and Wallis, 2008). Subsequently, the provision of service information related to interchange times, expected departure and arrival times enhances the meaningfulness and reliability of trips (Velázquez Romera & Monzón, 2016). Taken together, we expect that perceived value positively influences behavioural intentions for public transportation usage and develop the following hypothesis:

H1: Perceived value is positively related on the intention to use public transport

Social norm

The social norm, reflecting perceived social pressure to engage or abstain from a behaviour, plays a pivotal role in the adoption of public transportation. Social influence provides valuable social insights, positively influencing intention and behavioural readiness to embrace diverse transportation modes (Bourke et al., 2019). For instance, an individual may initially consider driving but, influenced by social pressures, may opt for public transport. Research demonstrates that the subjective norm significantly predicts the intention to use public transportation

(Rezaimoghadam et al., 2022). Notably, the perceived opinions of significant others, a component of subjective norm measurement, exhibit a negative correlation with its impact strength on intention (Ekhardt, 2009). Furthermore, social norm is delineated by two distinct processes: anticipated feelings of guilt and perceived social norms. These processes elucidate how different social contexts can shape individual judgments and actual usage of public transportation (Neuber, 2021). Hence, a substantial body of evidence underscores the pivotal role of norms in elucidating behaviour regarding mode choice and usage frequency. Taken together, we expect that social norm positively influences behavioural intentions for public transportation usage and develop the following hypothesis:

H2: Social norm is positively related on the intention to use public transport

Affective

The third determinant of intention involves the affective factor, which pertains to the unconscious emotional responses' individuals evoke in specific situations (Gärling et al., 1998). An examination of car drivers' willingness to switch to public transport revealed that their post-experience satisfaction, as recalled in a study by Al-Ayyash and Abou Zeid (2019), was lower than their anticipated satisfaction before the experience. Affective outcomes related to specific trips on public transport, known as trip-based affect, can result in negative emotional responses among drivers due to social information received from their referents. Drivers may experience anxiety concerning their punctuality if they choose public transport (Schneider, 2013). Recently, Kang et al. (2020) investigated drivers' implementation intentions to use public buses and discovered that worry impedes drivers' intentions to adopt public transport in Malaysia. Generally, we expect that affective negatively influences behavioural intentions for public transport usage. Thus, we have the following hypothesis:

H3: Affective is negatively related on the intention to use public transport

Environmental concern

Environmental consciousness has been shown to impact the acceptance of public transportation. Research indicates that individuals with a higher level of environmental responsibility are more inclined to opt for public transportation as a sustainable mode of travel. Various factors, including demographic characteristics, transportation alternatives, trip-related considerations, and environmental concerns, have been recognized as influential elements shaping an individual's likelihood to utilize public transportation. Furthermore, the advantages associated with public transportation, such as reduced energy

consumption and pollution, are underscored as incentives to enhance its adoption (Li et al., 2021). These findings underscore the importance of promoting environmental awareness and highlighting the ecological advantages of public transportation as effective strategies for fostering its adoption and usage. Thus, we expect that environmental concern will positively influence behavioural intentions for public transport usage and develop the following hypothesis:

H4: Environmental concern is positively related on the intention to use public transport

Intention to use public transport

To transition to public transport, drivers must procure the requisite resources. Following the establishment of intention, they embark on a deliberate alteration of their daily travel patterns, meticulously strategizing the incorporation of public transport by planning the when, where, and how aspects. This entails crafting a specific journey with determination, systematically outlining every conceivable outcome—whether positive or negative—in a methodical and calculated manner. Thus, we expect that intention to use will positively influence behavioural intentions for public transport usage and develop the following hypothesis:

H5: Intention to use is positively related on the behavioural readiness to use for public transport

The proposed theoretical framework

Based on the above underpinning assumptions, we develop a theoretical framework that aims to understanding the factors contributing the behavioural intention and behavioural readiness to adopt public transport. The research model is shown in Figure 1. The model was drawn based on the Theory of Interpersonal Behaviour (TIB) to represent the perceived value, affective, social norm, environmental concern and to represent the individuals' readiness to adopt sustainable means of transportation (Triandies, 1980; Kang, 2019).

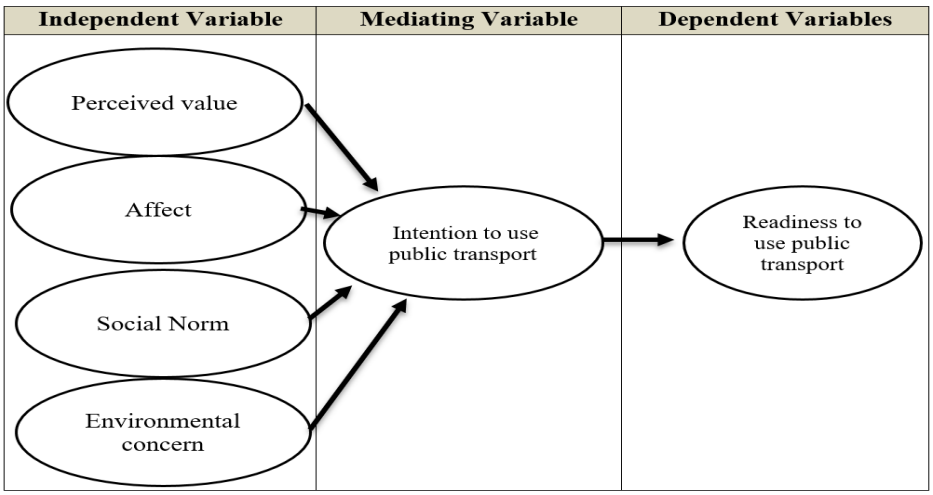

Figure 1: The proposed theoretical model

RESEARCH METHODOLOGY

Research Design

The study adopted a self-guided quantitative survey approach which was distributed in the Terengganu. Given that the Ministry of Transport Malaysia does not maintain records of consumers who use public transport, a convenience sampling method was employed to mitigate potential common method bias. The study's procedure includes two pre-tests, a pilot, and the actual study.

Data collection

A non-probability with convenience sampling method was used to select respondents to participate in the face-to-face quantitative survey. The survey questionnaire was conducted at four densely-populated locations in cities of Terengganu, namely Dungun, Jertih, Chukai and Kuala Terengganu. These cities are the main areas in the state where public transportation penetration is higher, and the public transportation sector is developed in Terengganu. Data collection began in September 2022 and ended in October 2022, with 200 thoroughly questionnaires being returned. After screening, we found 185 valid questionnaires (a 93% effective rate). Descriptive information regarding the respondents is shown in Table 1.

The demographic characteristics of the study respondents. The largest proportion (25.4%) resides in the Dungun district, closely followed by Jertih, Kemaman, and Kuala Terengganu, each accounting for 24.9%. The age distribution revealed that a significant portion (35%) falls within the 17-21 age bracket, while the subsequent age group of 22-26 comprises 28.1%. Ethnically,

the vast majority (99.5%) identify as Malay, with a nominal representation (0.5%) from the Indian ethnic group. Regarding transportation preferences, the data indicates that 63.8% of respondents primarily utilised private vehicles. Furthermore, a noteworthy 78.9% of respondents relied on bus services for commuting within their hometowns. Examining the frequency of bus usage, the majority respondents (60.5%) opted for bus transportation once a month. Additionally, 75.1% of respondents have availed themselves of taxi services in their hometowns, with 68.1% having never utilized taxi services. Conversely, a substantial 70.8% of respondents engaged with e-hailing services, such as Grab car and Maxim, within their hometowns.

Measures

The survey questionnaire was structured into six sections and 20 profiling questions. Perceived values were operationalized using 23 items to represent Comfort (10), Service Information (6), and Convenience (7) dimensions with scale range from 1= not at all important to 7 = very important. The social norm was measured using five items from 1 = strongly disagree to 7 = strongly agree. The affective construct was operationalized using 13 items to represent Unsure (3), Unsafe (6) and Uncomfortable (4) with scale range from 1 = never to 5 = always. Environmental concern construct was operationalized using 5 items from 1 = strongly disagree to 7 = strongly agree. This is also the case with the intention to use public transport and behavioural readiness to use public transport.

Data analysis

This study applies PLS-SEM approach to analyse the data. PLS-SEM is robust in handling multicollinearity, where predictors are highly correlated, which can be an issue in traditional regression methods. It is suitable for situations with smaller sample sizes where other methods might not perform well due to limitations in data. Also, PLS-SEM can model complex relationships between predictor and response variables, including situations where there might be nonlinear relationships. It is useful when dealing with datasets with many predictors or latent variables, making it suitable for structural equation modelling and path analysis. Furthermore, PLS-SEM is well-suited for predictive modelling, especially when the focus is on predicting outcomes rather than interpreting the individual relationships between variables (Salleh et al., 2023). It is particularly effective in situations where the goal is to maximize predictive accuracy. This study applied SmartPLS version 4.0 because of its robustness, especially in handling complex models with small sample sizes and multicollinearity, providing reliable results (Hair et al. 2014).

RESULT AND DISCUSSION

In the application of multivariate analysis, this study adopted Hair et al. (2017) recommendation of the PLS-SEM sequence to analyse path model. According to Hair et al. (2017), the path model involves the measurement models and followed by the structural model.

Measurement model

In the measurement model, the assessment involved were indicator reliability (outer loadings), internal consistency reliability (composite reliability [CR]) and convergent validity (average variance extracted [AVE]). The outer loadings of a construct should at least explain 50% of each indicator's variance. Meanwhile, the CR higher than 70% demonstrates an internal consistency reliability. Lastly, an AVE to be above the required minimum of 50% in order to have acceptable level of convergent validity. This study adopted two-stage method that involved using first-stage construct as an indicator for the second-stage construct, and extracting the AVE and CR for the higher-order construct (HOC). This approach is beneficial when multidimensional variables are mediating variables or endogenous. Besides, this approach can provide a consistent result since it does not necessitate an equal number of indicators for lower-order constructs (Ringle et al. 2015). The initial standardized factor loadings of the model items ranging from 0.727 to 0.953; hence, they were all greater than the suggested threshold value of 0.7 (Hair et al. 2019). In addition, the CR values were also more than the recommended threshold value of 0.6 (Hair et al. 2016), as they ranged from 0.673 to 0.918. Finally, the AVE values ranging from 0.630 to 0.780, so they were greater than the recommended threshold value of 0.5 (Hair et al. 2019). In order to measure the discriminant validity, the current study found out the HTMT for the overall model, including perceived value, social norm, affective, environmental concern, behavioural intention and behavioural readiness. All the HTMT values of the latent constructs in the overall model variables ranged from 0.032 to 0.864 and were thus below the threshold value of 0.90. This result proved that each latent construct measurement was totally discriminatory (Henseler et al. 2015).

Assessment of structural model

Because the measurement model exhibited reliability and validity, the next step in the analytical process involved scrutinizing the structural model. The evaluation of multicollinearity among the indicators in the structural model included analysing each set of constructs in relation to the endogenous construct. According to Hair et al. (2019), a variance inflation factor (VIF) value equal to or over 5.0 for a given construct suggests the presence of a possible issue with

multicollinearity. VIF threshold below the value of 5.0 was acceptable as multicollinearity does not reach its critical level.

Hypothesis testing

To test hypotheses, a bootstrapping function was employed. In this instance, a minimum of 5000 bootstrap samples were chosen, and critical values for one-tailed t-tests of 1.645 (significance level = 5%) and 2.33 (significance level = 1%) were utilized (Hair et al. 2014). Based on Table 5, the results show that social norm has a significant influence on intention to use public transport with a regression coefficient of 0.445, standard deviation = 0.094, t-statistic value = 4.719 and significant at the 1% level. This means, assuming social norm increases by 1% then intention to use public transport will increase by 44.5%.

Similarly, environmental concern has a significant influence on intention to use public transport with a regression coefficient of 0.293, standard deviation = 0.089, t-statistic value = 3.287 and significant at the 1%. This means, assuming environmental concern increases by 1% then intention to use public transport will increase by 29.3%. Next, the study found that intention to use public transport has a significant influence on behavioural readiness to use public transport with a regression coefficient of 0.310, standard deviation = 0.095, t-statistic value = 3.271 and significant at the 1% level. This means, assuming intention to use public transport increases by 1% then behavioural readiness to use public transport will increase by 31%. Lastly, the result also indicated a non-significant relationship between perceived value (β=−0.071, $p > 0.05$) and affective (β=0.096, $p > 0.05$). Thus, hypotheses H1 and H3 in this study were not supported. In addition, Table 5 shows the results of the analysis of coefficient of determination (R-Square) and Effect Size (f-Square). The study found that perceived value can explain its influence on social influence as much as 0.144 or 14.4 percent. Next, perceived value, social influence and affective attitude can explain the influence on intention to try public transport as much as 0.374 or 37.4 percent. The rest, as much as 62.6 percent, is explained by other variables that were not studied in this study. The variable intention to try public transport and affective attitude can explain its influence on behavioural to try public transport as much as 0.139 or 13.9 percent.

In addition, Table 5 shows the results of the analysis of coefficient of determination (R-Square). The R-square value between perceived value, social norm, affective, environmental concern, and intention to use public transport were 0.374. It suggests that 37.4% of the variance in intention to use public transport could be explained by these constructs. The R-square value between intention to use public transport and behavioural readiness to use public transport were 0.139. It suggests that 13.9% of the variance in behavioural readiness to use public transport could be explained by intention to use public transport.

Table 5: Hypothesis testing

Ha	Relationship	Coefficient	Standard error	t-value	p-value	R-Square	Decision
H1	PV→IU	-0.071	0.069	0.976	0.329	**0.374**	Not supported
H2	SN→IU	0.440	0.094	4.719	0.000		Supported
H3	AF→IU	0.096	0.066	1.425	0.154		Not supported
H4	EC→IU	0.303	0.089	3.287	0.001		Supported
H5	IU→RU	0.318	0.095	3.271	0.001	**0.139**	Supported

Note: PV- Perceived value; SN- Social norm; AF- Affective; EC- Environmental concern; IU- Intention to use public transport; RU- Readiness to use public transport

Based on the findings of the current study, it is evident that the intention to use public transport plays a crucial role in shaping citizens' readiness to adopt this mode of transportation during the study period. This behavioural intention is significantly influenced by both social norms and environmental concerns. First, the study revealed a positive and significant influence of social norms on the intention and to adopt public transport, highlighting how individuals' perceptions of their external environment significantly shape their behaviour. Respondents tended to conform to the transportation behaviour of their social groups and peers. Consequently, the prevalent use of private transportation within certain social circles influenced individuals' inclination to follow suit, leading to increased intention and usage of public transport as a sustainable travel mode. This finding aligns with the findings of Bourke et al. (2019) and Kang et al. (2020), emphasizing the influence of information provided by household members, friends, and co-workers on encouraging positive behaviour regarding public transport adoption. Furthermore, the study identified a positive and significant influence of environmental concerns on intentions to use public transport. Individuals who prioritize environmental sustainability may actively seek ways to incorporate green practices into their daily lives. Opting for public transport can be perceived as a sustainable and responsible choice, contributing to a larger societal effort to reduce the environmental impact of transportation. The finding of present study is consistent with Ng and Phung (2021) who revealed that environmental health concern is important in rail transport usage among private motor vehicle users in Greater Kuala Lumpur.

The lack of a significant influence of perceived value on the intention to use public transport in the study may be attributed to several factors. Respondents noted cleanliness issues and the absence of air conditioning in some transportation terminals and public transport, which overshadowed any perceived value. Additionally, the lack of service information at terminals and during transit, absence of voice announcement systems at destinations, and the absence

of physical amenities like cashless payment options, Wi-Fi availability, and electronic display of the next stop limited respondents' use of public transport. The finding is in contradiction with Kang et al. (2020) who found a positive significantly relationship between perceived value and public transport intention among individuals in the state of Penang, Malaysia. It is most likely that the public transport infrastructure differences between Penang and Terengganu resulted in such a discrepancy. The absence of a significant relationship between affective factors and intention to use public transport among individuals may be attributed to various factors. One possibility is that respondents may not perceive a strong emotional connection or emotional influence in their decision-making process regarding public transport use. The finding is in contradiction with Silva et al. (2021), Das and Varshneya (2017) who found a positive and significant influence of emotions on passengers' behavioural intentions for public transport. It is most likely that limited obstruction on roads in Terengganu likely contributes to a reduced incentive for individuals to shift from private vehicles to public transport.

CONCLUSION

The study aimed to investigate the factors influencing behavioural readiness to use public transport among citizens in the state of Terengganu, Malaysia. Key findings highlighted the significant influence of social norms on individuals' decision to use public transport. This suggests that the opinions of close acquaintances play a crucial role in the decisions of Terengganu citizens regarding the adoption of public transportation. Additionally, the study revealed the significance of environmental concern, indicating that individuals in the study possessed substantial factual knowledge of the environment, leading to their readiness for public transportation adoption. However, affective constructs, such as feelings of uncertainty, discomfort, and insecurity, did not significantly impact actual behaviour in using public transport. Furthermore, perceived value was not found to significantly influence the decision to adopt public transport during the study period. These findings have important implications for policymakers and urban planners, emphasizing the need to address the importance of perceived value among individuals to encourage the adoption for public transportation as a medium for sustainable mobility. Firstly, the related government agencies may introduce subsidies that make public transport more affordable for a wider range of individuals. Special discounts for students, seniors, and low-income populations can increase accessibility and perceived value. In terms of quality-of-service standards, the policymakers should establish and enforce quality of service standards for public transport providers. This can include cleanliness, safety measures, and comfort standards to ensure a positive experience for passengers. The related ministries and public transport providers also must work

towards making public transport more accessible for people with disabilities. This includes ensuring that vehicles and stations are designed to accommodate individuals with diverse mobility needs.

Lastly, the policymakers can improve the diffusion and adoption rate of public transportation in Malaysia by enhancing public awareness campaigns. By highlighting the positive impact on reducing carbon emissions and congestion in the community, it can evoke a sense of pride and responsibility among passengers to safeguarding the earth. These recommendations are facilitated by the networks and collaborations between different public, private and hybrid stakeholders to enhance their domain capacities which similar to what has been achieved in different sectors and context (see Azinuddin et al., 2023). Several limitations associated with this study warrant consideration. Firstly, relying on cross-sectional self-reporting questionnaires, rather than observing actual behaviour, may introduce self-report bias and social desirability bias. This method may not fully capture real situations, potentially leading to under-reporting and over-reporting. Secondly, the utilization of convenience sampling resulted in a demographic bias, predominantly representing the Malay ethnic group, which deviates from the overall ethnic distribution in Malaysia. To gain deeper insights into consumers' psychological states, researchers may explore behavioural readiness through qualitative methods. Additionally, expanding the study to various states in Malaysia could provide a more representative ethnic group distribution, enhancing the generalizability of the results. A cross-cultural or cross-national study may also be beneficial to comprehend potential cultural variations in behavioural studies. Despite these limitations, this study contributes to our understanding of citizens' readiness for public transportation usage in the Malaysian context.

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