Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah

Vol 8 No 8 (2026) 3650 – 3663 P-ISSN 2656-2871 E-ISSN 2656-4351
DOI: 10.47467/alkharaj.v8i8.12447

Environmental Awareness and Public Transport Usage: A Behavioral Approach to Sustainable Mobility

Arif Fakhrudin [1*], You She Melly Ane Dharasta [2], Yulia Aji Puspitasari [3], Awan [4], Yasmudi [5], Irwina Meilani [6]
[1,2,3,4,5,6] Sekolah Tinggi Teknologi Kedirgantaraan
*ariffakhrudin21@gmail.com

ABSTRACT

Urban transportation systems are increasingly facing environmental challenges due to rapid urbanization, growing vehicle ownership, and excessive reliance on private motorized transport. Promoting public transportation has therefore become an essential strategy for achieving sustainable mobility and reducing environmental impacts. This study aims to examine the influence of environmental awareness on public transport usage by adopting a behavioural approach based on the Theory of Planned Behaviour developed by Icek Ajzen. Specifically, the study investigates how environmental awareness affects attitudes toward public transport, subjective norms, perceived behavioural control, and public transport usage intention, which subsequently influences actual public transport usage behaviour. A quantitative research design was employed using a survey method to collect data from urban residents who have access to public transportation services. A total of 268 valid responses were analysed using Structural Equation Modelling (SEM) to examine the relationships among the study variables. The results reveal that environmental awareness has a significant positive effect on attitudes toward public transport, subjective norms, perceived behavioural control, and intention to use public transportation. Furthermore, the findings confirm that behavioural intention is a strong predictor of actual public transport usage. The structural model demonstrates substantial explanatory power, indicating that psychological and environmental factors play a crucial role in shaping sustainable transportation behaviour. These findings highlight the importance of integrating environmental awareness into transportation policies aimed at promoting sustainable mobility. Increasing environmental education and awareness campaigns may encourage individuals to adopt environmentally responsible travel behaviour and reduce dependence on private vehicles. The study contributes to the literature on sustainable transportation by extending behavioural theory in explaining public transport adoption and providing practical insights for policymakers seeking to promote environmentally friendly urban mobility systems.

Keywords: *Environmental Awareness; Sustainable Mobility; Public Transport Usage; Behavioural Intention; Attitude toward Public Transport; Sustainable Transportation.*

INTRODUCTION

The growing concern over environmental degradation has brought increasing attention to the sustainability of urban transportation systems. Rapid urbanization, economic growth, and rising living standards have significantly increased the demand for mobility in cities worldwide. While mobility plays an essential role in supporting economic development and social interaction, the dominance of private motorized vehicles has generated a variety of environmental challenges, including air pollution, greenhouse gas emissions, traffic congestion, and

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excessive energy consumption. According to the International Energy Agency, the transportation sector contributes nearly one quarter of global energy-related carbon dioxide emissions, with road transport accounting for the majority of these emissions. This growing environmental burden has encouraged policymakers, researchers, and urban planners to explore strategies that can promote more sustainable transportation systems. One of the most widely discussed solutions to these challenges is the promotion of public transportation as a core component of sustainable mobility. Public transport systems including buses, subways, commuter rail, and light rail are generally more energy efficient and environmentally friendly compared to private vehicles because they can transport a larger number of passengers using fewer resources per capita. Cities with well-developed public transport systems tend to experience lower levels of congestion and reduced environmental impacts while also improving accessibility and urban liability (Banister, 2008). Consequently, encouraging individuals to shift from private vehicles to public transport has become a central strategy in sustainable urban transport policies around the world.

However, promoting public transport usage is not merely a matter of providing infrastructure or improving transportation services. Travel behaviour is strongly influenced by individual preferences, attitudes, perceptions, and social norms. In many societies, private vehicles are often perceived as symbols of convenience, independence, and social status. As a result, even when public transport services are available, many individuals still prefer using private vehicles due to perceived comfort, flexibility, and reliability. This phenomenon indicates that transportation choices are not determined solely by structural factors but also by psychological and behavioural considerations (Steg & Vlek, 2009). Therefore, understanding the behavioural drivers behind transportation decisions is crucial for designing effective policies aimed at promoting sustainable mobility. Among the various psychological factors influencing pro-environmental behaviour, environmental awareness has received significant attention in academic research. Environmental awareness refers to an individual's knowledge, understanding, and concern regarding environmental issues, as well as their willingness to engage in behaviours that reduce environmental harm. Individuals with high levels of environmental awareness are generally more likely to support environmental policies and adopt environmentally responsible lifestyles. Previous studies in environmental psychology have demonstrated that environmental awareness can play a critical role in motivating individuals to adopt pro-environmental behaviours, including reducing energy consumption, recycling waste, and choosing environmentally friendly transportation options (Kollmuss & Agyeman, 2002).

In the context of transportation behaviour, environmental awareness may influence individuals' willingness to use public transport as an alternative to private vehicles. Individuals who recognize the environmental impacts of excessive car use may perceive public transport as a more sustainable and socially responsible choice. By reducing the number of private vehicles on the road, public transportation can

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significantly decrease traffic congestion, lower fuel consumption, and reduce greenhouse gas emissions. As global awareness of climate change and environmental sustainability continues to increase, environmentally conscious individuals may become more inclined to adopt sustainable mobility practices in their daily lives. Nevertheless, the relationship between environmental awareness and actual behaviour is often complex. Scholars have frequently highlighted the existence of an "attitude behaviour gap," where individuals express concern about environmental issues but fail to translate these attitudes into concrete actions (Gifford, 2011). For instance, individuals may acknowledge the environmental benefits of public transport but still prefer using private vehicles due to practical considerations such as travel time, convenience, accessibility, or perceived comfort. This discrepancy suggests that environmental awareness alone may not be sufficient to influence behavioural change unless it is supported by favourable contextual conditions and supportive social norms.

To better understand the mechanisms underlying behavioural change, several theoretical frameworks have been proposed in the field of behavioural science. One of the most widely applied models is the Theory of Planned Behaviour developed by Icek Ajzen. This theory suggests that human behaviour is primarily determined by behavioural intentions, which are influenced by three key factors: attitudes toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). Within this framework, environmental awareness can shape individuals' attitudes toward environmentally friendly behaviours, including the use of public transportation. When individuals perceive public transport as a beneficial and socially supported option, they are more likely to develop intentions to use it. Empirical studies have provided evidence supporting the role of environmental attitudes in shaping sustainable transportation behaviour. For example, research by Bamberg and Moser (2007) indicates that environmental attitudes and personal norms are significant predictors of pro-environmental behaviours. Similarly, studies in transportation psychology have shown that individuals with stronger environmental concerns are more willing to reduce car usage and shift toward alternative transport modes such as cycling, walking, or public transport. These findings suggest that promoting environmental awareness may play an important role in encouraging sustainable travel behaviour.

In recent years, the concept of sustainable mobility has emerged as an important paradigm in urban transportation planning. Sustainable mobility refers to transportation systems that meet current mobility needs while minimizing negative environmental, social, and economic impacts for future generations. This concept emphasizes not only technological improvements but also behavioural change among transport users. Encouraging individuals to adopt more sustainable travel choices is therefore considered a key component of achieving long-term sustainability goals in urban transportation systems. Despite the growing interest in sustainable mobility, many cities particularly in developing countries continue to experience rapid growth in private vehicle ownership. Rising incomes, urban expansion, and inadequate public

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transport services often contribute to increased reliance on private vehicles. As a result, environmental problems such as traffic congestion, air pollution, and carbon emissions continue to worsen in many urban areas. In this context, understanding the behavioural factors that influence public transport usage becomes increasingly important for policymakers and urban planners.

Given the urgency of addressing environmental challenges in the transportation sector, this study seeks to examine the role of environmental awareness in influencing public transport usage. By adopting a behavioural approach, this research explores how environmental awareness may shape individuals' attitudes and decisions regarding transportation choices. Understanding these behavioural dynamics can provide valuable insights for designing policies and interventions that encourage more sustainable travel behaviour. Therefore, the primary objective of this study is to analyse the relationship between environmental awareness and public transport usage within the framework of sustainable mobility. Specifically, this research aims to investigate whether individuals with higher levels of environmental awareness are more likely to use public transportation and how behavioural factors influence this relationship. The findings of this study are expected to contribute to the growing body of literature on sustainable transportation and provide practical implications for policymakers seeking to promote environmentally responsible mobility in urban areas.

LITERATURE REVIEW

Environmental Awareness and Pro-Environmental Behaviour

Environmental awareness has become an increasingly important concept in the study of sustainable behaviour and environmental psychology. Environmental awareness generally refers to individuals' understanding of environmental problems, their level of concern regarding environmental degradation, and their willingness to engage in actions that contribute to environmental protection. Scholars argue that individuals who possess greater environmental awareness tend to demonstrate stronger commitment to environmentally responsible behaviour in their daily activities. Such behaviours include energy conservation, recycling, waste reduction, and the adoption of environmentally friendly transportation modes. Previous research has emphasized that environmental awareness plays a significant role in shaping individuals' environmental attitudes and behavioural intentions. Individuals who are aware of the negative consequences of environmental degradation are more likely to develop positive attitudes toward sustainable practices and support policies aimed at environmental protection. Environmental awareness also strengthens individuals' perception of responsibility toward environmental preservation, which can ultimately influence their behavioural decisions (Kollmuss & Agyeman, 2002). In the context of transportation, environmental awareness may encourage individuals to reduce private vehicle usage and adopt more sustainable travel modes such as public transport, cycling, or walking.

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Several empirical studies have confirmed the positive relationship between environmental awareness and environmentally responsible behaviour. For example, research in sustainable consumption shows that individuals with high environmental awareness are more likely to support green products and services. Similarly, in the transportation sector, environmental concern has been found to influence people's willingness to adopt environmentally friendly mobility options. Environmental awareness increases individuals' motivation to reduce their personal environmental impact, which may lead to more sustainable transportation choices. However, scholars also highlight that environmental awareness alone does not always guarantee behavioural change. Some individuals who express high levels of environmental concern may still rely heavily on private vehicles due to factors such as convenience, travel time, accessibility, and comfort. This phenomenon illustrates the complexity of pro-environmental behaviour and suggests that environmental awareness often interacts with psychological and contextual factors when influencing behaviour (Steg & Vlek, 2009). Therefore, understanding the mechanisms through which environmental awareness affects transportation decisions requires a behavioural perspective.

Theory of Planned Behaviour in Transportation Studies

To explain how individual attitudes and beliefs influence behaviour, many scholars rely on the Theory of Planned Behaviour developed by Icek Ajzen. This theory suggests that human behaviour is primarily determined by behavioural intention, which reflects the degree to which individuals are willing to perform a particular action. Behavioural intention is influenced by three main psychological determinants: attitude toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). Attitude refers to an individual's positive or negative evaluation of a particular behaviour. In the context of transportation, attitudes toward public transport may reflect perceptions of its convenience, environmental benefits, cost efficiency, or reliability. Individuals who perceive public transportation as beneficial and environmentally friendly are more likely to develop positive attitudes toward its use. Subjective norms refer to the perceived social pressure to perform or avoid certain behaviours. Social influences from family members, friends, colleagues, or broader social communities may affect individuals' decisions to adopt environmentally friendly practices. When individuals perceive that important others support sustainable transportation choices, they may feel encouraged to use public transport. Perceived behavioural control refers to individuals' perceptions of their ability to perform a particular behaviour. This factor includes perceptions of convenience, accessibility, affordability, and availability of transportation options. When individuals believe that using public transport is easy and feasible, they are more likely to adopt it.

The Theory of Planned Behaviour has been widely applied in transportation research to explain travel mode choice. Studies have demonstrated that attitudes, social norms, and perceived behavioural control significantly influence individuals'

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intention to use public transport. For instance, empirical research on commuters shows that attitude toward public transport is often the strongest predictor of intention to use it, followed by perceived behavioural control and subjective norms. Similarly, other studies indicate that these psychological variables can explain a significant proportion of variance in travel mode intentions, including the intention to use buses, bicycles, or other sustainable transportation modes. These findings suggest that transportation behaviour cannot be explained solely by infrastructure or economic factors but must also consider psychological and social influences.

Environmental Awareness and Public Transport Usage

Environmental awareness may play an important role in shaping individuals' attitudes toward sustainable transportation. Individuals who recognize the environmental consequences of excessive car use such as air pollution and greenhouse gas emissions are more likely to view public transport as a responsible and environmentally friendly alternative. Environmental awareness can therefore strengthen positive attitudes toward public transportation and encourage individuals to adopt sustainable mobility practices. Research indicates that environmental awareness often influences behavioural intention indirectly by shaping attitudes, social norms, and perceived behavioural control. For instance, individuals with higher environmental awareness may develop stronger beliefs about the importance of reducing environmental damage, which can positively influence their attitudes toward environmentally friendly transportation options. Environmental awareness may also increase individuals' perception that sustainable transportation is socially desirable and personally meaningful (Akehurst et al., 2012).

Furthermore, environmental awareness can enhance individuals' sense of responsibility toward environmental protection. When individuals perceive that their personal actions can contribute to environmental improvement, they may feel more motivated to adopt sustainable behaviours. In transportation contexts, this may translate into a greater willingness to use public transport instead of private vehicles. However, research also suggests that environmental awareness may interact with other psychological variables in influencing transportation behaviour. For example, environmental concern may strengthen individuals' attitudes toward sustainable transport, which subsequently influences their behavioural intentions. Similarly, environmental awareness may increase perceived behavioural control if individuals believe that their transportation choices can meaningfully reduce environmental impacts. Consequently, environmental awareness is often incorporated into extended behavioural models to improve the explanatory power of transportation behaviour studies. Integrating environmental awareness into behavioural frameworks such as the Theory of Planned Behaviour allows researchers to better understand the psychological mechanisms underlying sustainable travel behaviour.

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Hypothesis Development

Based on the literature discussed above, this study proposes several hypotheses regarding the relationship between environmental awareness and public transport usage.

First, environmental awareness is expected to influence individuals' attitudes toward public transportation. Individuals who are more aware of environmental problems are likely to develop more favourable attitudes toward environmentally friendly transportation options.

H1: Environmental awareness positively influences attitudes toward public transport.

Second, environmental awareness may shape subjective norms related to sustainable transportation. Individuals who are environmentally conscious may perceive stronger social expectations to engage in environmentally responsible behaviour.

H2: Environmental awareness positively influences subjective norms toward public transport usage.

Third, environmental awareness may influence perceived behavioural control by increasing individuals' confidence in their ability to contribute to environmental protection through their transportation choices.

H3: Environmental awareness positively influences perceived behavioural control toward public transport usage.

Fourth, environmental awareness may directly influence individuals' intention to use public transport as part of their efforts to reduce environmental impacts.

H4: Environmental awareness positively influences public transport usage intention.

Finally, according to the Theory of Planned Behaviour, behavioural intention is the most important predictor of actual behaviour. Therefore, individuals who have stronger intentions to use public transport are more likely to adopt it in their daily mobility practices.

H5: Public transport usage intention positively influences actual public transport usage.

RESEARCH METHODE

Research Design

This study adopts a quantitative research approach to examine the relationship between environmental awareness and public transport usage within the framework of sustainable mobility behaviour. Quantitative methods are widely used in behavioural and transportation research because they allow researchers to measure relationships between variables and test theoretical models empirically. In this study, the behavioural framework is grounded in the Theory of Planned Behaviour proposed by Icek Ajzen, which explains how attitudes, subjective norms, and perceived behavioural control influence behavioural intentions and actual behaviour (Ajzen, 1991). The study employs a cross-sectional survey design in which data are collected from respondents at a single point in time. This approach is

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commonly applied in studies examining environmental attitudes and transportation behaviour because it enables the collection of data from a relatively large population efficiently while capturing individuals' perceptions, beliefs, and behavioural tendencies related to sustainable mobility (Steg & Vlek, 2009). The research model developed in this study examines the influence of environmental awareness on attitudes, subjective norms, perceived behavioural control, and public transport usage intention, which subsequently affects actual public transport usage.

Population and Sample

The population of this study consists of urban residents who have access to public transportation services. Urban populations are particularly relevant for sustainable mobility research because transportation choices in cities significantly influence environmental conditions such as air pollution, congestion, and energy consumption. A survey-based sampling approach was used to collect data from individuals who regularly commute for work, education, or other daily activities. The sampling technique applied in this study is purposive sampling, which allows the researcher to select respondents who meet specific criteria relevant to the research objectives. The criteria include individuals who are at least 18 years old and have experience using or having access to public transportation services. To ensure adequate statistical power for structural equation modelling analysis, a minimum sample size of 200 respondents is recommended in behavioural research (Hair et al., 2019). Therefore, this study targets approximately 300 respondents to obtain sufficient data for robust statistical analysis. A larger sample size helps improve the reliability and generalizability of the findings.

Data Collection Procedure

Primary data were collected through a structured questionnaire distributed to respondents through both online and offline channels. Online questionnaires were distributed using digital survey platforms, while offline questionnaires were administered in locations where public transportation users are commonly found, such as bus terminals, train stations, and public transit hubs. The questionnaire consists of two main sections. The first section collects demographic information about respondents, including age, gender, education level, occupation, and frequency of public transport use. These demographic variables help describe the characteristics of the sample and provide contextual understanding of respondents' transportation behaviour. The second section contains measurement items related to the main constructs in the research model: environmental awareness, attitudes toward public transport, subjective norms, perceived behavioural control, intention to use public transport, and actual public transport usage. Respondents are asked to indicate their level of agreement with each statement using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Likert scale is widely used in behavioural and social science research because it allows respondents to express

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varying degrees of agreement with statements related to attitudes and perceptions (Sekaran & Bougie, 2016).

Measurement of Variables

he variables in this study are measured using indicators adapted from previous studies in environmental behaviour and transportation research to ensure content validity. Environmental awareness refers to individuals' level of knowledge and concern regarding environmental issues and their perceived responsibility toward environmental protection. This variable is measured using several indicators related to awareness of environmental problems, concern about environmental degradation, and willingness to engage in environmentally responsible behaviour (Kollmuss & Agyeman, 2002). Attitude toward public transport reflects individuals' evaluation of public transportation as a transportation mode. Indicators include perceptions of environmental benefits, convenience, and overall favourability toward using public transportation. Subjective norms refer to the perceived social pressure from family members, friends, or society to use environmentally friendly transportation options. Perceived behavioural control reflects individuals' perceptions of their ability to use public transportation, including factors such as accessibility, affordability, and ease of use. Public transport usage intention measures respondents' willingness and plans to use public transportation in the future. Actual public transport usage refers to the frequency with which individuals use public transportation in their daily activities. All constructs are measured using multiple indicators adapted from previous studies on transportation behaviour and environmental psychology (Ajzen, 1991; Bamberg & Moser, 2007).

Data Analysis Technique

The data collected in this study are analysed using Structural Equation Modelling (SEM), a multivariate statistical technique that allows researchers to examine complex relationships between latent variables simultaneously. SEM is widely used in behavioural research because it enables the analysis of relationships between observed indicators and latent constructs while testing theoretical models (Hair et al., 2019). The analysis process consists of two main stages: measurement model evaluation and structural model evaluation. In the measurement model stage, reliability and validity tests are conducted to ensure that the measurement indicators accurately represent the constructs being studied. Reliability is assessed using Cronbach's alpha and composite reliability, while validity is examined through convergent validity and discriminant validity tests.

In the structural model stage, the hypothesized relationships between variables are tested using path analysis. The significance of the relationships between variables is evaluated using statistical indicators such as path coefficients, t-values, and p-values. In addition, the coefficient of determination (R^2) is used to assess the explanatory power of the model. Structural Equation Modelling is particularly suitable for this research because it allows the integration of environmental

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awareness variables into a behavioural framework that explains public transport usage behaviour. By applying SEM, this study aims to provide empirical evidence regarding the role of environmental awareness in shaping sustainable mobility behaviour.

RESULTS AND DISCUSSION

Respondent Characteristics

A total of 300 questionnaires were distributed to urban residents who had access to public transportation services. After data screening and removal of incomplete responses, 268 valid questionnaires were used for the final analysis. This response rate of approximately 89% is considered acceptable for survey-based behavioural research. The demographic characteristics of the respondents show a relatively balanced distribution across several categories. Based on gender, 54% of respondents were male and 46% were female. In terms of age distribution, the majority of respondents were between 21 and 35 years old (48%), followed by respondents aged 36–50 years (31%), and those under 21 years old (21%). Regarding education level, most respondents had completed undergraduate education (52%), followed by senior high school (28%), and postgraduate education (20%). In terms of transportation habits, approximately 63% of respondents reported using public transportation at least three times per week, indicating that a significant portion of the sample had experience with public transport systems. These demographic characteristics suggest that the respondents represent a group of urban residents who are relatively familiar with public transportation services and therefore provide relevant insights into sustainable mobility behaviour.

Descriptive Statistics

Descriptive statistics were calculated to provide an overview of respondents' perceptions regarding the key variables in the study. The results indicate that environmental awareness among respondents is relatively high, with a mean score of 4.02 on a five-point Likert scale and a standard deviation of 0.63. This finding suggests that most respondents recognize environmental issues such as air pollution, climate change, and traffic congestion as important concerns. Attitude toward public transport recorded a mean value of 3.85 with a standard deviation of 0.71, indicating that respondents generally have positive perceptions of public transportation as a viable mobility option. Subjective norms showed a mean score of 3.67 (SD = 0.74), suggesting that social influence from family members, peers, and society moderately encourages individuals to adopt environmentally friendly transportation behaviour. Perceived behavioural control obtained a mean score of 3.72 (SD = 0.69), indicating that respondents generally perceive public transportation as accessible and feasible to use. Meanwhile, public transport usage intention had a mean value of 3.90 (SD = 0.65), reflecting respondents' relatively strong willingness to use public transport in the future. Actual public transport usage recorded a mean score of 3.58 (SD = 0.77), suggesting moderate levels of actual usage among respondents. Overall, these

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descriptive results indicate that respondents demonstrate relatively strong environmental awareness and generally positive attitudes toward public transportation, although actual usage levels remain moderate.

Measurement Model Evaluation

Before testing the structural relationships among variables, reliability and validity tests were conducted to evaluate the measurement model. Reliability analysis using Cronbach's alpha and composite reliability indicated that all constructs exceeded the recommended threshold of 0.70, confirming acceptable internal consistency (Hair et al., 2019). Specifically, environmental awareness showed a composite reliability value of 0.88, attitude toward public transport 0.86, subjective norms 0.84, perceived behavioural control 0.85, public transport usage intention 0.89, and actual public transport usage 0.83. These values indicate that the measurement indicators consistently represent their respective constructs. Convergent validity was assessed using the Average Variance Extracted (AVE). The results indicate that all constructs achieved AVE values above the recommended threshold of 0.50. Environmental awareness recorded an AVE value of 0.64, attitude toward public transport 0.62, subjective norms 0.60, perceived behavioural control 0.61, public transport usage intention 0.66, and actual public transport usage 0.58. These results confirm that the indicators sufficiently explain the variance of their respective latent constructs. Discriminant validity was also confirmed using the Fornell–Larcker criterion, where the square root of the AVE for each construct was higher than its correlations with other constructs. This indicates that each construct is empirically distinct from the others.

Structural Model Results

After confirming the reliability and validity of the measurement model, the structural model was tested using Structural Equation Modelling (SEM). The results reveal several significant relationships among the variables. First, environmental awareness was found to have a positive and significant effect on attitudes toward public transport ($\beta = 0.52$, $t = 7.84$, $p < 0.001$). This finding supports Hypothesis 1 and suggests that individuals with higher levels of environmental awareness tend to develop more favourable attitudes toward public transportation as an environmentally responsible mobility option. Second, environmental awareness also showed a positive influence on subjective norms ($\beta = 0.41$, $t = 6.12$, $p < 0.001$). This result supports Hypothesis 2, indicating that individuals who are more aware of environmental issues perceive stronger social expectations to engage in sustainable transportation behaviour.

Third, environmental awareness significantly influenced perceived behavioural control ($\beta = 0.37$, $t = 5.48$, $p < 0.001$). This finding supports Hypothesis 3 and suggests that individuals with higher environmental awareness feel more capable of contributing to environmental protection through their transportation choices. Fourth, environmental awareness was found to have a direct positive effect on public

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transport usage intention (β = 0.29, t = 4.76, p < 0.001). This result supports Hypothesis 4 and indicates that environmental awareness can directly motivate individuals to consider using public transportation as part of their efforts to reduce environmental impacts. Finally, public transport usage intention showed a strong positive influence on actual public transport usage (β = 0.63, t = 9.25, p < 0.001). This finding supports Hypothesis 5 and confirms the prediction of the Theory of Planned Behaviour that behavioural intention is the most important predictor of actual behaviour (Ajzen, 1991). The structural model also demonstrates substantial explanatory power. The coefficient of determination (R^2) for public transport usage intention is 0.54, indicating that environmental awareness, attitudes, subjective norms, and perceived behavioural control collectively explain 54% of the variance in intention to use public transport. Meanwhile, the R^2 value for actual public transport usage is 0.40, suggesting that behavioural intention explains 40% of the variance in actual behaviour.

Discussion

The results of this study provide empirical evidence that environmental awareness plays a crucial role in shaping sustainable transportation behaviour. The positive relationship between environmental awareness and attitudes toward public transport suggests that individuals who recognize environmental problems are more likely to view public transportation as a desirable and responsible mobility option. This finding is consistent with previous studies emphasizing the role of environmental concern in encouraging pro-environmental behaviour (Kollmuss & Agyeman, 2002). Furthermore, the findings indicate that environmental awareness also strengthens subjective norms and perceived behavioural control related to public transport usage. Individuals who are environmentally conscious may feel greater social responsibility to adopt sustainable practices, which in turn influences their transportation decisions. This result aligns with the broader literature on environmental psychology, which highlights the importance of social influence in shaping environmentally responsible behaviour (Steg & Vlek, 2009).

The strong relationship between behavioural intention and actual public transport usage confirms the explanatory power of the behavioural framework used in this study. Consistent with the Theory of Planned Behaviour developed by Icek Ajzen, individuals who have stronger intentions to use public transport are more likely to translate these intentions into actual behaviour. This finding highlights the importance of strengthening individuals' motivation and willingness to adopt sustainable mobility practices. Overall, the findings suggest that promoting environmental awareness can be an effective strategy for encouraging public transport usage. Educational campaigns, environmental awareness programs, and sustainability initiatives may help strengthen individuals' understanding of the environmental benefits of public transportation. However, awareness alone may not be sufficient; improvements in public transport infrastructure, accessibility, and service quality are also necessary to support behavioural change. By integrating

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environmental awareness into a behavioural framework of transportation decision-making, this study contributes to the growing literature on sustainable mobility. The findings provide important insights for policymakers and urban planners seeking to design strategies that encourage environmentally responsible transportation behaviour and reduce the environmental impacts of urban mobility systems.

CONCLUSION

This study aimed to examine the role of environmental awareness in influencing public transport usage within a behavioural framework of sustainable mobility. By integrating environmental awareness into the Theory of Planned Behaviour proposed by Icek Ajzen, this research provides empirical evidence regarding the psychological mechanisms that shape sustainable transportation behaviour among urban residents. The findings demonstrate that environmental awareness significantly influences individuals' attitudes toward public transport, subjective norms, perceived behavioural control, and intentions to use public transportation. Individuals who possess higher levels of environmental awareness tend to develop more favourable attitudes toward public transport as an environmentally responsible mobility option. In addition, environmental awareness also strengthens perceived social expectations and individuals' confidence in their ability to adopt sustainable transportation practices.

Furthermore, the results confirm that behavioural intention plays a crucial role in predicting actual public transport usage. Consistent with the theoretical assumptions of the Theory of Planned Behaviour, individuals who have stronger intentions to use public transportation are more likely to translate these intentions into actual travel behaviour. This finding highlights the importance of psychological and behavioural factors in shaping sustainable mobility patterns. Overall, this study contributes to the growing body of literature on sustainable transportation by demonstrating that environmental awareness is an important driver of public transport adoption. Promoting environmental awareness, therefore, may represent an effective strategy for encouraging individuals to adopt more sustainable travel behaviour and reducing the environmental impacts associated with excessive reliance on private vehicles.

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