Journal of Global Business and Management Review
e-ISSN: 2685-3426
https://journal.uib.ac.id/index.php/jgbmr/

ANALYSIS OF FACTORS INFLUENCING DEUTSCHLANDTICKET REPURCHASE INTENTIONS: A STUDY USING THE THEORY OF PLANNED BEHAVIOR IN INTERNATIONAL STUDENTS AT JADE HOCHSCHULE WILHELMSHAVEN

Vidya Ayu Dwi Septiana[1*], Sri Surjani Tjahjawati[2], Tangguh Dwi Pramono[3], Sherry Novalia Fujiasti[4]
[1,2,3,4]Administrasi Bisnis, Politeknik Negeri Bandung, Indonesia

Article's Information

DOI:
10.37253/jgbmr.v7i1.10348

e-ISSN:
2685-3426

EDITORIAL HISTORY:
SUBMISSION: April 25, 2025
ACCEPTED: June 2, 2025

CORRESPONDENCE*:
vidya.ayu.abs22@polban.ac.id

AUTHOR'S ADDRESS:
Jl. Gegerkalong Hilir, Ciwaruga, Kec. Parongpong, Kabupaten Bandung Barat, Jawa Barat

ABSTRACT

This study aims to analyze the factors influencing the repurchase intention of the Deutschlandticket among international students at Jade Hochschule Wilhelmshaven using the Theory of Planned Behavior (TPB) framework. The Deutschlandticket is a monthly public transportation subscription introduced by the German government as a long-term solution to the energy crisis and to promote environmentally friendly mobility. However, the ticket price increase from €49 to €58 per month in January 2025 presents new challenges in maintaining repurchase intention. This research examines the three core components of TPB attitude, subjective norms, and perceived behavioral control and their effects on the repurchase intention of the Deutschlandticket. The study employs a survey method with a sample of international students in Wilhelmshaven, analyzed using validity, reliability, and regression tests. Hypothesis testing reveals that all tested pathways are statistically significant. Structural model analysis shows that 67.1% of the variance in repurchase intention is explained by the three TPB constructs, indicating a strong model fit. However, the influence of environmental concern on subjective norms and perceived behavioral control individually remains modest. The results suggest that students' environmental concerns strengthen their attitudes, perceived control, and social pressures, ultimately leading to a higher intention to repurchase the Deutschlandticket despite the price increase. These findings offer important insights for policymakers and transport providers aiming to sustain ticket adoption rates through strategies emphasizing environmental benefits. It contributes to the understanding of sustainable consumer behavior and highlights the role of environmental concerns in shaping repurchase intentions within the public transportation sector.

Keywords: *theory of planned behavior, Deutschlandticket, public transportation.*

INTRODUCTION

The Russian invasion of Ukraine in February 2022 triggered a major energy crisis across Europe, severely impacting Germany due to its reliance on Russian natural gas imports (Horng, 2024). Consequently, energy prices in Germany surged by 35.7% in August 2022 compared to the previous year (Destatis, 2023). In response, the German government launched the €9 ticket in the summer of 2022 to encourage the use of public transport and reduce dependence on fossil fuels. Its success led to the development of the Deutschlandticket, introduced on May 1, 2023, offering nationwide public transport access for €49 per month (Restle, 2022).

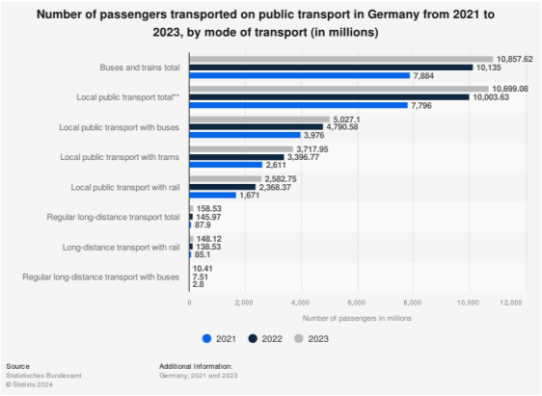

Figure 1. Number of Passengers on Public Transport in Germany from 2021 to 2023, by Mode of Transport (in millions)
Source: (Statista, 2024)

According to data from a research team at the Berlin based climate research institute MCC (Mercator Research Institute on Global Commons and Climate Change) published in September 2024, the Deutschlandticket has changed people's mobility patterns. The proportion of train journeys for distances over 30 km increased from about 10% to 12%, indicating a significant shift from car use to trains (Ariadne, 2024).

Deutschlandticket aims not only to provide affordable mobility but also to foster a sustainable shift from private vehicle usage to public transport. Within three months of its launch, 11 million subscriptions were recorded, and data indicated a significant rise in long-distance train usage, highlighting changes in mobility behavior. Furthermore, the Deutschlandticket initiative contributed to a reduction of 6.7 million tons of CO^2 emissions, supporting Germany's long-term environmental goals (DeutschWelle, 2022).

Despite these positive impacts, the Deutschlandticket faces challenges. A planned price increase to €58 in January 2025 is predicted to decrease train usage by 14% and increase car usage by 3.5%, potentially undermining earlier environmental gains (DeutscheBahn, 2024). To address this issue, it is important to conduct research to identify the key factors that influence repurchase intentions. Such insights can help policymakers and service providers design more targeted interventions to retain current users and attract new ones, even amid rising costs.

A clear comprehension of the elements that affect the likelihood of customers repurchasing the Deutschlandticket is essential, especially in light of these changes (Roberts & Chapman, 2018).

Applying the Theory of Planned Behavior (TPB) (Ajzen, 1991), which posits that attitude, subjective norms, and perceived behavioral control predict behavioral intentions, this study focuses on international students at Jade Hochschule Wilhelmshaven. While previous studies have applied TPB to various consumer behaviors, few have specifically explored repurchase intentions for public transportation products in the context of price changes.

This gap is particularly relevant given by increase in the price of the Deutschlandticket.

Therefore, the aim of this study is to analyze how the core TPB components, along with environmental concern, influence international student's intentions to repurchase the Deutschlandticket despite the price adjustment.

This research contributes to the literature by applying TPB in a public transportation setting during a pricing policy shift, offering insights for both academic understanding and policy formulation to promote sustainable mobility behavior among young international populations.

LITERATURE REVIEW

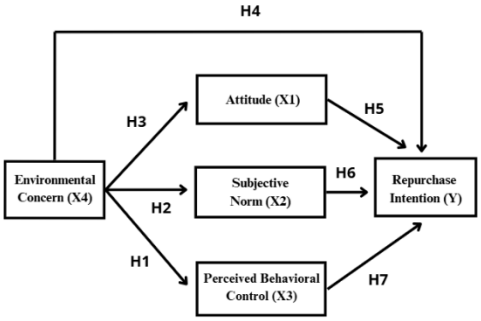

Figure 2. Proposed Research Framework

Theory of Planned Behavior (TPB)

The theory of planned behavior (Ajzen, 1991) suggests that intentions drive behaviors, and these intentions are shaped by attitudes, subjective norms, and perceived behavioral control (Khoiruman & Harsono, 2023; Sartika, 2020). However, external factors can override intentions, either facilitating or preventing a behavior. The degree to which a person genuinely manages their behavior and how closely their sense of control matches their real control determines this outlines several purposes of the Theory of Planned Behavior (TPB) (Budiyanto, 2022).

These include predicting and understanding how motivation impacts behavior, determining effective strategies for behavioral change, and providing a framework for explaining a wide range of human actions, such as why individuals engage in word of mouth marketing.

Attitude

Attitude is defined as the extent to which a person holds a favorable or unfavorable evaluation of a behavior (Christina & Adiati, 2023). A person's attitude toward a particular behavior is shaped by their beliefs regarding the outcomes of that behavior, often called behavioral beliefs. These beliefs are connected to how an individual personally assesses their environment (Ajzen, 2020; Budiyanto, 2022).

Attitude may also describe how a person views a particular behavior, whether they see it in a positive or negative light, which is shaped through observation or experience, as well as the tendency to perform that behavior. Attitude consists of two main components: behavioral beliefs and outcome evaluation (Ajzen, 1991; Sartika, 2020).

Several studies have confirmed that attitude significantly influences repurchase intention. For instance, (Bandyopadhyaya & Bandyopadhyaya, 2020; Hauslbauer et al., 2022; Kim & Lee, 2019) found that consumers with a positive attitude toward transportation tickets are more likely to repurchase them. This is because favorable attitudes often reflect a higher degree of satisfaction and value alignment with the product.

Subjective Norms

Subjective norms refer to the perceived expectations of influential

individuals in a person's life regarding the behavior they are likely to perform (Huang & Ge, 2019; Mahyarni, 2013). Subjective norm refers to the perceived social influence or pressure that encourages an individual to either engage in or avoid a particular behavior. It reflects an individual's perception of the social demands exerted by significant others or important groups who expect or desire the individual to engage in the behavior in a particular way (Ajzen, 1991; Palupi & Sawitri, 2017). Subjective norms consist of two primary components: descriptive norms and injunctive norms (Ajzen, 1991; Hauslbauer et al., 2022; Mushi, 2024).

Prior studies support the relationship between subjective norms and repurchase intention. For example, (Bandyopadhyaya & Bandyopadhyaya, 2020; Hauslbauer et al., 2022; Kortsch & Händeler, 2024) demonstrated that social pressure or encouragement from peers and family members can strongly influence a person's intention to make repeated purchases, particularly for sustainable or environmentally friendly products.

Perceived Behavioral Control

Perceived behavioral control (PBC) represents a person's beliefs about the presence and influence of resources, for instance tools, compatibility, skills, and chances that can either help or hinder the expected behavior (Ajzen, 1991; Mahyarni, 2013).

In essence, PBC refers to how easy or hard a person believes it is to carry out a specific behavior. It represents an individual's perception of their ability to regulate and execute the intended action (Tamba, 2019). Fundamentally, PBC comprises two primary components: controllability and self-efficacy (Ajzen, 1991; Boo, Sze Yee & Tan, 2024). Research by (Bandyopadhyaya & Bandyopadhyaya, 2020; Kim & Lee, 2019; Kortsch & Händeler, 2024) suggests that PBC significantly predicts repurchase intention. When consumers believe they have the necessary resources and ability such as financial means, knowledge, or access to buy a product again, their likelihood of repurchasing increases.

Environmental Concern

Environmental concern is considered a key factor in comprehending consumer behavior connected to environmental awareness, as demonstrated in marketing research (Hines et al., 1987; Prakash & Pathak, 2017). Awareness of environmental issues can also contribute to reducing environmental problems on a personal level (Paul et al., 2016a).

Studies have also shown that environmental awareness greatly impacts consumers' attitudes (Laheri et al., 2024) and the intention to purchase green products (Mita Soraya & Yoestini, 2024).

Consumers familiar with environmental concerns have shown favorable views toward bio-based materials and generally prefer to buy eco-friendly products (Sajinˇ, 2021). With the increasing level of environmental concern, consumers have shown more positive attitudes toward eco-friendly products. Environmental concern consists of three indicators: Egoistic concern, Altruistic concern and Biospheric concern (Bakti, Umar; Hairudin; Alie, 2022). Studies by (Paul et al., 2016b) show that individuals with a high level of environmental concern tend to develop more favorable attitudes and stronger intentions to purchase and repurchase green products.

Repurchase Intention

Repurchase intention refers to a customer's behavior or readiness to buy a product or service again following their first purchase and experience with it (Shanbhag et al., 2023).

Repurchase intention refers to the motivation to buy a product repeatedly, which can be influenced by both internal factors such as satisfaction and loyalty, and external factors such as social influence and product availability. The tendency of consumers to engage in repeat purchasing behavior or to continue choosing a specific brand indicates the level of consumer repurchase intention (Maslim & Andayani, 2023). Thus, it can be concluded that repurchase intention is a consumer's action or inclination prior to making a subsequent purchase of the same product or service.

(Li et al., 2023) describe repurchase intention as the customer's tendency to engage in repeated purchasing behavior, which can be used to predict customer loyalty and future buying patterns. Repurchase intention refers to customers' deliberate decision to purchase the same product or brand again at a later time. Individual repurchase intention reflects consumer behavior and is therefore widely used by marketers to develop retention strategies (Huang & Ge, 2019).

Repurchase intention can be measured through several indicators, namely explorative intention, transactional intention, and referential intention (Satriawan, 2020).

METHODS

This research employs a quantitative causal research design to examine the relationships between variables related to the use of the Deutschlandticket among international students at Jade Hochschule Wilhelmshaven. The total student population at the university is 3,324, which initially led the researcher to consider applying the Slovin formula to determine an appropriate sample size using simple random sampling. According to Slovin's formula with a 10% margin of error, the minimum required sample size was calculated to be approximately 98 respondents. This sampling method was deemed practical for broad survey distribution via social media platforms and student emails.

However, during the research implementation, it became evident that the target respondents of this study were not the entire student population, but specifically a defined subpopulation: international students who had purchased the Deutschlandticket.

A total of 191 valid responses were obtained from international students who confirmed their purchase of the Deutschlandticket. Since this group constitutes the entire accessible population relevant to the research objectives, the researcher employed a census sampling method, in which every member of the identified subpopulation is included in the analysis. The use of a census in this case is methodologically appropriate because the study focuses exclusively on international students who have purchased the Deutschlandticket, not the entire university population. This makes it more appropriate to treat this group as a complete and distinct population.

According to (Sahir, 2022), in structural equation modeling using PLS, the recommended sample size ranges between 30 and 500, or at least 5 to 10 times the number of indicators used. With 191 valid responses and a sufficient number of indicators in the measurement model, the sample size fully meets the recommended minimum for PLS-SEM.

Data analysis was conducted using SmartPLS 4, which facilitated the systematic exploration of causal relationships and provided robust tools for path modeling, enabling the researcher to

effectively assess direct and indirect effects among the measured variables.

RESULTS

This study involved 191 of international students at Jade Hochschule, with the characteristics shown in Table 1 which reflects the characteristics of respondents in the university.

Table 1. Respondent Characteristic

Description	Total	Percentage
Gender		
1) Male	81	42,4%
2) Female	110	57,6%
Age		
1) Millennials (1980—1994)	11	5,75%
2) Generation Z (1995—2012)	180	94,25%
Education Level		
1) High School Diploma/ Equivalent Education Level	20	10,48%
2) Diploma/Bachelor's Degree	165	86,38%
3) Master's Degree	6	3,14%
Pocket Money		
1) Below 1.000 Euro	139	72,78%
2) From 1001 to 2000 Euro	43	22,52%
3) From 2001 to 3000 Euro	8	4,18%
4) Above 3000 Euro	1	0,52%
TOTAL	191	100%

Source: (Researcher, 2025)

Measurement Model Analysis (Outer Model)

SmartPLS 4 is utilized to assess the measurement (external) model, specifically to evaluate the reliability and validity of the research indicators. This software enables researchers to confirm that the indicators used in the study consistently and accurately measure the intended constructs (Yudatama et al., 2019).

The validity and reliability of the constructs in this study were assessed based on established criteria (Sugiyono, 2020). Specifically, constructs were deemed valid and reliable if they met the following thresholds, outer loadings exceeding 0.70 for individual items, Cronbach's Alpha and Composite Reliability (CR) values above 0.70, and Average Variance Extracted (AVE) values exceeding 0.50. Table 2 summarizes the results of this assessment.

Table 2. Validity and Reliability Test

Item Measurement	Indicator	Phrasing	Outer Loadings	Cronbach's Alpha	Composite Reliability (CR)	AVE
AT1	Behavioral beliefs	I believe that purchasing the Deutschlandticket is necessary.	0.745	0.797	0.867	0.62
AT2		I consider that purchasing Deutschlandticket as a good idea.	0.810			
AT3		I perceive that purchasing Deutschlandticket as beneficial.	0.838			
AT4	Outcome evaluation	I want to purchase the Deutschlandticket.	0.752			
SN1	Descriptive characteristic	If people around me purchase a Deutschlandticket, I compelled to buy a Deutschlandticket.	0.827	0.754	0.859	0.670

Item Measurement	Indicator	Phrasing	Outer Loadings	Cronbach's Alpha	Composite Reliability (CR)	AVE
SN2	Injunctive characteristic	People around me (family and peers) would purchase the Deutschlandticket if they were in the position of workers or students.	0.856			
SN3		Campaigns/invitations to buy Deutschlandtickets delivered by news in the mass media (such as advertisements on television, radio, social media, etc.) will encourage me to buy Deutschlandtickets.	0.770			
PBC1	Controllability	Purchasing the Deutschlandticket is a simple process.	0.858	0.88	0.918	0.736
PBC2		Purchasing the Deutschlandticket is not overly complicated.	0.88			
PBC3	Self-efficacy	I intend to purchase the Deutschlandticket cause the process is very accessible.	0.888			
PBC4		The decision to buy the Deutschlandticket is entirely dependent on me.	0.802			
EC1	Egoistic concern	I am concerned about the CO2 emissions caused by the use of private vehicles such as cars.	0.773	0.825	0.876	0.585
EC2		I am willing to reduce my car usage to decrease carbon emissions.	0.787			
EC3	Altruistic concern	Substantial political changes are necessary to enhance the sustainability of the traffic and transportation sector.	0.741			
EC4		Anti-emission laws should be enforced more stringently.	0.756			
EC5	Biospheric concern	The environment will be benefit, if students in Jade Hochschule Wilhemshaven purchase Deutschland Ticket.	0.767			
RI1	Explorative intention	I am willing to repurchase Deutschlandticket again.	0.706	0.732	0.845	0.646
RI2	Transactional controllability	I will positively consider repurchasing Deutschlandticket.	0.852			
RI3	Referential intention	I will recommend Deutschlandticket to other people.	0.845			

Source: SmartPLS

As presented in Table 2 and Figure 2, the construct Attitudes (X1) demonstrates satisfactory levels of validity and reliability. The outer loadings range from 0.745 to 0.838, exceeding the recommended threshold of 0.70, while the Cronbach's Alpha is 0.797, the Composite Reliability (CR) is 0.867, and the Average Variance Extracted (AVE) stands at 0.620. These values indicate internal consistency and sufficient convergent validity for the construct.

Similarly, the Subjective Norms (X2) construct meets the required measurement criteria, with all indicator loadings above 0.70, a Cronbach's Alpha of 0.754, CR of 0.859, and AVE of 0.67 indicating good internal consistency and convergent validity.

The construct Perceived Behavioral Control (X3) also demonstrates strong measurement properties, with all indicator loadings exceeding 0.80, a Cronbach's Alpha of 0.880, CR of 0.918, and AVE of 0.736. These results confirm that the indicators effectively represent the underlying construct.

In same vein, Environmental Concern (X4) shows acceptable measurement quality. All loadings are above 0.70, and the construct yields a Cronbach's Alpha of 0.825, CR of 0.876, and AVE of 0.585 supporting its reliability and convergent validity.

Furthermore, the dependent variable Repurchase Intention (Y) also satisfies the reliability and validity criteria. All item loadings exceed 0.70, with a Cronbach's Alpha of 0.732, CR of 0.845, and AVE of 0.646, indicating that the construct is both internally consistent and valid for structural analysis.

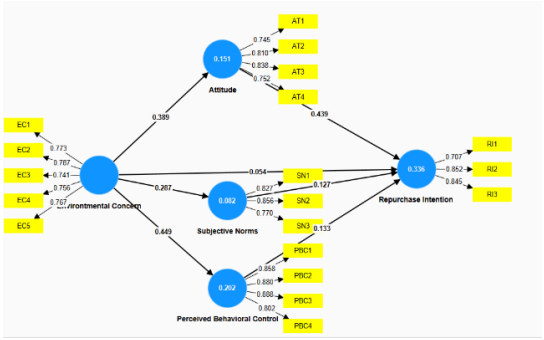

Figure 3. Outer Loading Path Model

Hypothesis Test

Table 3. Hypotesis Test

Variable	T statistics	P values
AT → RI	3.909	0.000
EC → AT	3.788	0.000
EC → PBC	6.197	0.000
EC → SN	2.839	0.005

Source: SmartPLS

AT → RI: These results indicate that Attitude (AT) has a statistically significant positive effect on Repurchase Intention (RI); the t statistic exceeds the critical value ($|t| > 1.96$, $p < 0.05$). Thus, more favorable consumer attitudes are associated with stronger intentions to repurchase.

EC → AT: Environmental Concern (EC) exerts a significant positive influence on Attitude (AT), suggesting that higher levels of environmental concern correspond to more favorable consumer attitudes.

EC → PBC: EC also demonstrates a highly significant positive effect on Perceived Behavioral Control (PBC), indicating that increased environmental concern enhances consumers' perceived ability to engage in the behavior.

EC → SN: EC significantly influences Subjective Norms (SN), indicating that consumers with stronger environmental concern perceive greater social pressure to perform the behavior.

All tested pathways demonstrate that Environmental Concern has a significant

influence on Repurchase Intention through Attitude, Perceived Behavioral Control, and Subjective Norms among international students at Jade Hochschule. In other words, the higher the student's environmental concern, the stronger their intention to continue purchasing the Deutschlandticket, mediated by changes in their attitudes, social norms, and perceived behavioral control.

Structural Model Analysis (Inner Model)

The R-Square evaluation is divided into three categories: strong, moderate, and weak. An R-Square value exceeding 0.75 is deemed strong, a value near 0.50 is viewed as moderate, and a value under 0.25 is classified as weak (Sugiyono, 2020). The outcomes of the R-Square analysis are presented in Table 4.

Table 4. R-Square (R2)

	R-square	R-square adjusted
AT	0.151	0.147
PBC	0.202	0.197
RI	0.336	0.321
SN	0.082	0.078

Source: SmartPLS

When Repurchase Intention (RI) is specified as the dependent variable and Attitude (AT), Perceived Behavioral Control (PBC), and Subjective Norms (SN) serve as the independent predictors, the model yields an R^2 of 0.336 and an adjusted R^2 of 0.321. The coefficient of determination ($R^2 = 0.336$) indicates that 33.6% of the variance in repurchase intention is jointly explained by AT, PBC, and SN. After adjusting for the inclusion of multiple predictors and sample size, the adjusted R^2 (0.321) confirms that approximately 32.1% of the variability in RI is attributable to these three constructs.

These results demonstrate moderate explanatory power. Although attitudes, perceived behavioral control, and subjective norms collectively account for a substantive portion of intention to repurchase, the majority of variance (approximately 66%) remains unaccounted for by this model. Consequently, future research should consider incorporating additional antecedents, such as prior purchase behavior, price perception, and brand attachment to improve predictive accuracy.

DISCUSSIONS AND CONCLUSIONS

Deutschlandticket, using the Theory of Planned Behavior (TPB) as the theoretical framework and incorporating environmental concern as an additional predictor. The findings confirm that environmental concern plays a significant indirect role in predicting repurchase intention by influencing attitude, perceived behavioral control (PBC), and to a lesser extent, subjective norms (SN).

Among the TPB components, Attitude (AT) and Perceived Behavioral Control (PBC) emerged as stronger predictors of repurchase intention compared to Subjective Norms (SN). Specifically, the model explained more variance in repurchase intention through attitude ($R^2 = 0.151$) and PBC ($R^2 = 0.202$), both categorized as moderate, than through SN ($R^2 = 0.082$), which is considered weak.

This result is consistent with previous TPB based findings in the transportation sector. For instance, (Kim & Lee, 2019) found that subjective norms had no significant effect on repurchase intentions for premium economy airline services ($p = 0.161$), indicating that consumer decisions in such contexts are driven more by personal judgment than external influence, in contrast attitude had significant effect on repurchase intention.

Likewise, (Paul et al., 2016) observed that subjective norms were not significant

in shaping intentions to purchase green products, as consumers were not meaningfully influenced by family or peer opinions. In addition, the primary contribution of this study lies in the finding that environmental concern (EC) has a significant and positive influence on attitude, subjective norms, perceived behavioral control (PBC), and the intention to purchase green products. Notably, EC impacts purchase intention more effectively through the mediating variables of the Theory of Planned Behavior (TPB) than through a direct path. Among the TPB components, attitude emerged as the most influential predictor of green purchase intention, followed by perceived behavioral control.

A similar outcome was reported in a local Indonesian study (Romadhoni & Guspul, 2020), where subjective norm and perceived behavioral control had no significant impact on the intention to use online transportation services ($p = 0.152$ dan $p = 0{,}719$), with a t-value of (-1.443 and 0,361), lower than the critical threshold.

In this study, the limited role of subjective norms may be attributed to the unique characteristics of international students. These individuals are likely to view the Deutschlandticket primarily as a personal convenience or cost saving tool rather than a socially visible behavior influenced by others. Unlike long-term residents or established student communities, international students often have relatively weaker social networks in the host country, limiting the perceived pressure to conform to local norms regarding public transport. Moreover, while the subjective norm construct included media and social campaign influences (e.g., SN3), such sources may lack personal relevance or credibility, especially when not reinforced by direct peer interaction.

These insights have meaningful implications for practice. To enhance repurchase behavior, transportation service providers and policymakers should emphasize strategies that strengthen personal attitudes such as highlighting the environmental impact and affordability of the Deutschlandticket and improve perceived control by simplifying the repurchase process, offering multilingual support, and ensuring seamless digital access. While social norm based appeals may have limited primary influence, peer led initiatives within student communities could still play a secondary role by fostering belonging and social cohesion.

Overall, this research contributes to the literature on sustainable transportation behavior by applying the TPB in a specific population international students facing a real world policy change in pricing. The results underscore the importance of environmental concern and personal decision-making factors, while also revealing the comparatively weak role of subjective norms in influencing repurchase intention. These findings suggest that sustainability interventions should be tailored to the social and cultural dynamics of the target audience. In the case of international students, efforts should focus on enhancing autonomy, providing clear value, and removing practical barriers to encourage continued use of environmentally friendly transportation options like the Deutschlandticket.

LIMITATIONS

This study has several limitations that should be acknowledged. First, the research sample was limited to international students enrolled at Jade Hochschule Wilhelmshaven. While this group provides relevant insights, the findings may not be generalizable to other

student populations in Germany. Future studies should consider expanding the sample to include domestic students or students from multiple universities across different regions in Germany. Employing a stratified sampling approach could also allow for meaningful subgroup comparisons (e.g., by age, nationality, or study program), thereby enhancing external validity.

Second, while this study focused on the TPB framework and environmental concern as key predictors, additional factors such as perceived service quality, customer satisfaction, travel frequency, or financial constraints could be integrated into future models to enrich the understanding of repurchase intention in the public transport context.

Third, as the data were collected via self-reported surveys, common method bias and social desirability bias may have influenced participant's responses particularly on items related to environmental concern. Future research could address this limitation by incorporating mixed-method approaches (e.g., qualitative interviews, longitudinal tracking) or triangulating survey responses with behavioral data such as actual ticket purchases.

Finally, the study employed SmartPLS 4 for structural modeling; however, some measurement items, particularly in the Perceived Behavioral Control and Repurchase Intention constructs, demonstrated low outer loadings and AVE values. To improve construct validity in future studies, researchers could conduct pre-survey pilot testing, refine or replace weak indicators, and apply confirmatory factor analysis (CFA) to ensure the robustness of the measurement model. Utilizing validated scales from prior transportation research may also enhance measurement reliability and comparability across studies.

REFERENCE

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. Human Behavior and Emerging Technologies, 2(4), 314–324. https://doi.org/10.1002/hbe2.195

Ariadne. (2024). Was bringt das Deutschland-Ticket der Verkehrswende? Ariadne D-Ticket Impact Tracker zeigt Effekte auf Mobilität, Emissionen und mögliche Reaktionen auf Preiserhöhung | Ariadne. Https://Ariadneprojekt.de/News-de/Was-Bringt-Das-Deutschland-Ticket-Der-Verkehrswende-Ariadne-d-Ticket-Impact-Tracker-Zeigt-Effekte-Auf-Mobilitaet-Emissionen-Und-Moegliche-Reaktionen-Auf-Preiserhoehung/.

Bakti, Umar; Hairudin; Alie, M. S. (2022). Pengaruh Kualitas Pelayanan, Kualitas Produk dan Harga Terhadap Minat Beli. COMSERVA Indonesian Jurnal of Community Services and Development, 1(10), 809–815. https://doi.org/10.59141/comserva.v1i10.135

Bandyopadhyaya, V., & Bandyopadhyaya, R. (2020). Understanding public transport use intention post Covid-19 outbreak using modified theory of planned behavior: Case study from developing country perspective. January.

Boo, Sze Yee & Tan, C. (2024). Electric vehicles purchase intention: the role of mediators using an extended TPB model. Electric Vehicles Purchase Intention: The Role of Mediators Using an Extended TPB Model, Vol. 7 No.(2516–7480), 158–183. https://doi.org/10.1108/JCMARS-11-2023-0042%0A%0A

Budiyanto, S. ; N. ; (2022). THEORY OF PLANNED BEHAVIOR: Implementasi Perilaku Electronic Word of Mouth pada Konsumen Marketplace. https://repository.stiedewantara.ac.id/4235/1/Theory of Planned Behavior.pdf

Christina, S., & Adiati, R. P. (2023). Attitude Toward Behavior, Subjective Norm, Perceived Behavioral Control, dan Green Trust Sebagai Prediktor dari Green Purchase Intention pada Generasi Z. Jurnal Psikologi Talenta Mahasiswa, 3(2), 13–22.

Destatis, S. B. (2023). Data on energy price trends - Long-time series to Dezember 2022 (Last issue). Https://Www.Destatis.de/EN/Themes/Economy/Prices/Publications/Downloads-Energy-Price-Trends/Energy-Price-Trends-Pdf-5619002.Html.

DeutscheBahn. (2024, April 8). Interpretierende Zusammenfassung - Kernaussagen der bundesweiten Marktforschung zum Deutschland-Ticket. Https://Backend.Bdo.Org/Uploads/Assets/6620f4dc90cc936ae2000081/Original/Evaluationsbericht_versendet.Pdf?1713435868.

DeutschWelle. (2022). Jerman Luncurkan Tiket Transportasi Umum 49 Euro Tahun Depan – DW – 09.12.2022. Https://Www.Dw.Com/Id/Jerman-Luncurkan-Tiket-Transportasi-Umum-49-Euro-Tahun-Depan/a-64039949.

Hauslbauer, A. L., Schade, J., Drexler, C. E., & Petzoldt, T. (2022). Extending the theory of planned behavior to predict and nudge toward the subscription to a public transport ticket. European Transport Research Review, 14(1). https://doi.org/10.1186/s12544-022-00528-3

Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. Journal of Environmental Education, 18(2), 1–8. https://doi.org/10.1080/00958964.1987.9943482

Horng, D. C. (2024). The EU's Energy Crisis Management to the Russia-Ukraine War. European Energy and Environmental Law Review, 33, 173–186. https://doi.org/10.54648/eelr2024012

Huang, X., & Ge, J. (2019). Electric vehicle development in Beijing: An analysis of consumer purchase intention. Journal of Cleaner Production, 216, 361–372. https://doi.org/10.1016/j.jclepro.2019.01.231

Khoiruman, Muh., & Harsono, M. (2023). Perluasan Theory of Planned Behavior dalam Penelitian Perilaku Hijau Expansion of Theory of Planned Behavior in Green Behavior Research. ProBank, 8(1), 10–26. https://doi.org/10.36587/probank.v8i1.1448

Kim, J. H., & Lee, H. C. (2019). Understanding the repurchase intention of premium economy passengers using an extended theory of planned behavior.

Sustainability (Switzerland), 11(11). https://doi.org/10.3390/su11113213

Kortsch, T., & Händeler, P. (2024). Explaining sustainable purchase behavior in online flight booking—combining value-belief-norm model and theory of planned behavior. Gruppe. Interaktion. Organisation. Zeitschrift Fur Angewandte Organisationspsychologie, 55(2), 127–140. https://doi.org/10.1007/s11612-024-00735-7

Laheri, V. K., Lim, W. M., Arya, P. K., & Kumar, S. (2024). A multidimensional lens of environmental consciousness: towards an environmentally conscious theory of planned behavior. Journal of Consumer Marketing, 41(3), 281–297. https://doi.org/10.1108/JCM-03-2023-5875

Li, X., Dai, J., Zhu, X., Li, J., He, J., Huang, Y., Liu, X., & Shen, Q. (2023). Mechanism of attitude, subjective norms, and perceived behavioral control influence the green development behavior of construction enterprises. Humanities and Social Sciences Communications, 10(1). https://doi.org/10.1057/s41599-023-01724-9

Mahyarni, M. (2013). THEORY OF REASONED ACTION DAN THEORY OF PLANNED BEHAVIOR (Sebuah Kajian Historis tentang Perilaku). Jurnal EL-RIYASAH, 4(1), 13. https://doi.org/10.24014/jel.v4i1.17

Maslim, A. S. W., & Andayani, S. (2023). Penerapan Metode Theory of Planned Behavior Untuk Tingkat Kepercayaan Pelanggan Terhadap Minat Belanja Online. JuSiTik : Jurnal Sistem Dan Teknologi Informasi Komunikasi, 7(1), 7–14. https://doi.org/10.32524/jusitik.v7i1.1038

Mita Soraya, T., & Yoestini. (2024). Pengaruh Harga Terhadap Keputusan Pembeliaan Online Melalui Minat Beli Sebagai Variable Intervening dalam Pandangan Ekonomi Islam Pada Pengguna Aplikasi Buka Lapak di Semarang. Jurnal Ilmiah Ekonomi Islam, 10(01), 1165–1173. http://dx.doi.org/10.29040/jiei.v10i1.8992

Mushi, H. M. (2024). Higher-Order Constructs of Injunctive and Descriptive Norms of Consumer Purchase Behaviour of Pirated Music Compact Discs (Vol. 32, Issue 2).

Palupi, T., & Sawitri, D. R. (2017). Hubungan Antara Sikap Dengan Perilaku Pro-Lingkungan Ditinjau dari Perspektif Theory Of Planned Behavior Relationship Between Attitude And Pro-Environmental Behavior from the Perspective of Theory of Planned Behavior (Vol. 14, Issue 1).

Paul, J., Modi, A., & Patel, J. (2016a). Predicting green product consumption using theory of planned behavior and reasoned action. Journal of Retailing and Consumer Services, 29, 123–134. https://doi.org/10.1016/j.jretconser.2015.11.006

Paul, J., Modi, A., & Patel, J. (2016b). Predicting green product consumption using theory of planned behavior and reasoned action. Journal of Retailing and Consumer Services, 29, 123–134. https://doi.org/10.1016/j.jretconser.2015.11.006

Paul, J., Modi, A., & Patel, J. (2016c). Predicting green product consumption using theory of planned behavior and reasoned action. Journal of Retailing and Consumer Services, 29, 123–134.

Prakash, G., & Pathak, P. (2017). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. Journal of Cleaner Production, 141, 385–393.

Restle, B. (2022). Apakah Tiket Transportasi Umum 9 Euro di Jerman Berhasil? – DW – 05.07.2022. Https://Www.Dw.Com/Id/Tiket-Kereta-Supermurah-9-Euro-Di-Jerman-Sukses/a-62362875.

Roberts, K., & Chapman, T. (2018). Research Design and Methodology. Realising Participation, 91–114.

Romadhoni, A. B. N., & Guspul, A. (2020). Pengaruh Attitude, Subjective Norm, Dan Perceived Behavioral Control Terhadap Minat Beli Jasa Transportasi Online. Journal of Economic, Business and Engineering (JEBE), 2(1), 76–81.

Sahir, S. H. (2022). Buku ini di tulis oleh Dosen Universitas Medan Area Hak Cipta di Lindungi oleh Undang-Undang Telah di Deposit ke Repository UMA pada tanggal 27 Januari 2022.

Sajinˇ, N. (2021). about Lignin-Based Sunscreens and Bio-Based.

Sartika, D. (2020). Melihat Attitude and Behavior Manusia Lewat Analisis Teori Planned Behavioral. Journal of Islamic Guidance and Counseling, 4(UIN Sulthan Thaha Saifuddin Jambi), 51–70.

Satriawan, K. A. (2020). The role of purchase intention in mediating the effect of perceived price and perceived quality on purchase decision. International Research Journal of Management, IT and Social Sciences.

Shanbhag, P. R., Pai, Y. P., Kidiyoor, G., & Prabhu, N. (2023). Development and initial validation of a theory of planned behavior questionnaire: Assessment of purchase intentions towards products associated with CRM campaigns. Cogent Business and Management, 10(2).

Statista. (2024, September 9). German public transport passenger numbers by mode | Statista. Https://Www.Statista.Com/Statistics/625657/Public-Transport-Passengers-Germany/.

Sugiyono. (2020). Metodologi Penelitian Kuantitatif, Kualitatif dan R & D.

Tamba, D. (2019). APLIKASI THEORY OF PLANNED BEHAVIOR UNTUK MEMPREDIKSI PERILAKU MAHASISWA MEMBELI LAPTOP LENOVO (Studi Kasus: Mahasiswa FE-Unika Santo Thomas SU). Jurnal Manajemen Dan Bisnis, 17, 119–145.

Yudatama, U., Hidayanto, A. N., Nazief, B. A. A., & Phusavat, K. (2019). Data to model the effect of awareness on the success of IT Governance implementation: A partial least squares structural equation modeling approach (PLS-SEM). Data in Brief, 25, 104333.