



Digital Brand Experience and Reputation Building In Sustainable Urban Mobility

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Abstract

Digital transformation has accelerated the adoption of sustainable urban mobility, yet limited evidence explains how technological quality translates into sustainable mobility through user experience and reputation, particularly in emerging Indonesian cities. This study investigates the effects of system quality, information quality, and eco-efficiency on digital brand experience and examines the mediating roles of digital brand experience and reputation quotient in enhancing resilience and sustainable urban mobility. A quantitative approach using Structural Equation Modeling–Partial Least Squares (SEM-PLS) was employed. Data were collected from 360 valid users of digital mobility applications in Lampung, Palembang, and Medan and analyzed using SmartPLS 4. The results indicate that system quality ($\beta = 0.281$), information quality ($\beta = 0.302$), and eco-efficiency ($\beta = 0.268$) significantly improve digital brand experience. Digital brand experience positively influences reputation quotient ($\beta = 0.546$), which subsequently strengthens resilience ($\beta = 0.429$) and sustainable urban mobility ($\beta = 0.357$). In addition, digital brand experience directly enhances sustainable urban mobility ($\beta = 0.284$). Mediation analysis confirms that digital brand experience and reputation quotient partially mediate the relationship between technological quality and sustainable mobility outcomes. The findings demonstrate that technological performance contributes to sustainable urban mobility primarily through positive user experiences and strong organizational reputation, extending the Information Systems Success Model, Brand Experience Theory, and Reputation Quotient framework.

Keywords: digital brand experience, digital resilience, eco-efficiency, reputation quotient, sustainable urban mobility

Abstrak

Transformasi digital telah mempercepat pengembangan mobilitas perkotaan berkelanjutan, namun masih terbatas penelitian yang menjelaskan bagaimana kualitas teknologi mampu mendorong keberlanjutan melalui pengalaman pengguna dan reputasi, khususnya pada kota-kota berkembang di Indonesia. Penelitian ini bertujuan menganalisis pengaruh kualitas sistem, kualitas informasi, dan eco-efficiency terhadap digital brand experience serta menguji peran mediasi digital brand experience dan reputation quotient dalam meningkatkan resilience dan sustainable urban mobility. Penelitian menggunakan pendekatan kuantitatif dengan metode Structural Equation Modeling–Partial Least Squares (SEM-PLS). Data diperoleh dari 360 pengguna aplikasi transportasi digital di Lampung, Palembang, dan Medan yang dianalisis menggunakan SmartPLS 4. Hasil penelitian menunjukkan bahwa kualitas sistem ($\beta = 0,281$), kualitas informasi ($\beta = 0,302$), dan eco-efficiency ($\beta = 0,268$) berpengaruh positif dan signifikan terhadap digital brand experience. Selanjutnya, digital brand experience meningkatkan reputation quotient ($\beta = 0,546$), yang berdampak positif terhadap resilience ($\beta = 0,429$) dan sustainable urban mobility ($\beta = 0,357$). Digital brand experience juga berpengaruh langsung terhadap sustainable urban mobility ($\beta = 0,284$).

Analisis mediasi membuktikan bahwa digital brand experience dan reputation quotient memediasi sebagian hubungan antara kualitas teknologi dan mobilitas berkelanjutan. Temuan ini menegaskan bahwa keberhasilan transformasi digital bergantung pada pengalaman pengguna dan reputasi yang mampu memperkuat ketahanan serta mendorong mobilitas perkotaan berkelanjutan.

Kata Kunci : pengalaman merek digital, ketahanan digital, efisiensi lingkungan, indeks reputasi, mobilitas perkotaan berkelanjutan

INTRODUCTION

Digital transformation has become a key enabler of sustainable urban mobility (SUM), particularly in emerging Indonesian cities where public transportation systems continue to evolve. Mobile applications supporting public transport services, such as Light Rail Transit (LRT), DAMRI, and integrated urban mobility platforms, have shifted beyond their operational role to become important touchpoints through which users evaluate service quality, develop trust, and shape long-term usage intentions. Indonesia has experienced rapid progress in digital transportation, with digital platforms increasingly supporting sustainable mobility initiatives and smart city development (Kristanto et al., 2025). For example, Jakarta's Smart Mobility program has demonstrated how digital infrastructure can improve transportation efficiency and accessibility (Syalianda & Kusumastuti, 2021), while the transformation of digital transport platforms has reflected a dynamic interaction among government, private enterprises, and local communities (Emmanuel et al., 2023). Furthermore, digital nudging initiatives, including carbon offset programs, electric vehicle promotion, and environmentally responsible service features, indicate growing alignment between digital innovation and sustainability objectives (Asfarian et al., 2024). Nevertheless, despite widespread digital adoption, many urban mobility systems continue to face challenges in maintaining user engagement, public trust, and consistent service quality, limiting their long-term contribution to sustainable urban development.

Previous studies have generally examined sustainable urban mobility from separate perspectives. Transportation research has primarily emphasized infrastructure performance, environmental impacts, and public policy, whereas information systems research has focused on system quality, information quality, and user satisfaction. Similarly, branding studies have highlighted the importance of customer experience, trust, and corporate reputation in shaping behavioral intentions. Although these research streams provide valuable insights, they remain fragmented, particularly in the context of digital public transportation services in developing countries. Recent studies have introduced the concept of the "twin transformation," which highlights the synergistic relationship between digital transformation and sustainability (Christmann et al., 2024), while research on sustainability branding has identified brand experience and corporate reputation as critical determinants of long-term stakeholder engagement (Nascimento & Loureiro, 2024). Building upon earlier findings that adaptive digital ecosystems strengthen community resilience through meaningful user experiences (Kristanto et al., 2025), this study extends the discussion into sustainable urban mobility by examining how digital brand experience and reputation quotient contribute to resilient and sustainable transportation ecosystems.

To address the limited empirical evidence outside Indonesia's largest metropolitan areas, this study focuses on three rapidly developing cities—Lampung, Palembang, and Medan—that represent different stages of digital mobility transformation. Bandar Lampung serves as a strategic transportation gateway between Java and Sumatra and has successfully implemented Android-based Bus Rapid Transit (BRT) ticketing applications, although service quality consistency and system integration remain significant challenges (Syarif et al., 2023; Mukhlis et al., 2025). Palembang provides a unique case through its pioneering LRT system outside Java, combining environmentally oriented transportation policies with digital passenger services, despite continuing implementation challenges related to digital engagement and operational integration (Insani et al., 2023; Ridho & Buchari, 2023). In contrast, Medan's mobility ecosystem has been largely driven by private-sector innovation, where ride-hailing platforms demonstrate that customer experience, loyalty programs, and information system quality

significantly influence user engagement and repurchase intentions, although real-time information services remain insufficient (Lesmana et al., 2024; Tio & Siregar, 2025; Siahaan et al., 2020). Collectively, these three cities capture the geographical, infrastructural, and behavioral diversity characterizing Indonesia's ongoing digital mobility transformation.

Drawing upon this context, the present study integrates three complementary theoretical perspectives: the Information Systems (IS) Success Model, Brand Experience Theory, and the Reputation Quotient (RQ) framework. The IS Success Model explains how system quality, information quality, and eco-efficiency influence user satisfaction and digital service performance (Ariyanto et al., 2022), while Brand Experience Theory illustrates how functional interactions evolve into emotional attachment, trust, and loyalty (Ferreira et al., 2022). The Reputation Quotient framework further extends this relationship by explaining how individual experiences contribute to broader public perceptions of legitimacy, credibility, and sustainability (van der Walddt, 2022). Integrating these perspectives provides a comprehensive explanation of how technological quality develops into experiential value and ultimately generates reputational capital capable of strengthening resilience and supporting sustainable urban mobility ecosystems. Empirically, the study investigates how system quality, information quality, and eco-efficiency influence digital brand experience while examining the mediating roles of digital brand experience and reputation quotient in connecting technological performance with resilience and sustainable mobility outcomes across Lampung, Palembang, and Medan.

This study adopted a quantitative research design using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to examine the relationships among system quality, information quality, eco-efficiency, digital brand experience, reputation quotient, resilience, and sustainable urban mobility. SEM-PLS was selected because it effectively analyzes complex structural models involving multiple mediating relationships and accommodates non-normally distributed behavioral data (Hair & Alamer, 2022).

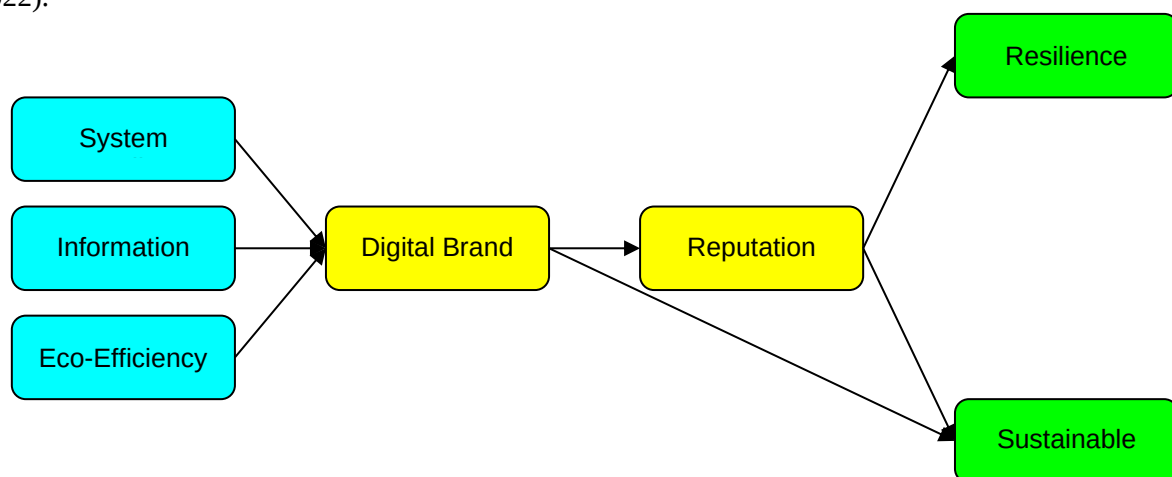


Figure 1. Model Development

Source: Data Processed (2026)

The research was conducted in Lampung, Palembang, and Medan, three Indonesian cities representing different stages of digital mobility transformation. Lampung reflects an emerging transport hub integrating digital ticketing and eco-efficient bus services (Wulandari et al., 2022), Palembang represents Indonesia's pioneering LRT-based smart mobility system emphasizing environmental sustainability (Insani et al., 2023), while Medan illustrates a metropolitan ecosystem where ride-hailing platforms, paratransit, and conventional transportation coexist (Siahaan et al., 2020). These cities provide diverse infrastructural and behavioral contexts for examining how digital technology, user experience, and reputation contribute to sustainable mobility adoption. Data were collected through an online structured questionnaire distributed via transportation communities and social media using purposive sampling. This study employed a purposive sampling technique because the research sought responses from individuals with direct experience using digital urban mobility applications. Probability sampling was considered

impractical because no comprehensive sampling frame exists for users of multiple mobility platforms across the three study cities. Following recommendations for behavioral and information systems research, purposive sampling is appropriate when respondents must possess specific knowledge or experience relevant to the research objectives. Eligible respondents were individuals aged 18–55 who regularly used digital transportation applications such as LRT Palembang, DAMRI, Gojek, Grab, and Trans Metro Medan. The final dataset comprised 420 valid responses. Measurement instruments were adapted from established information systems, marketing, and sustainability literature, with all constructs measured using reflective indicators on a five-point Likert scale. The questionnaire captured users' perceptions of technological quality (system quality and information quality), environmental value (eco-efficiency), psychological response (digital brand experience), social evaluation (reputation quotient), organizational resilience, and sustainable urban mobility outcomes, thereby providing a comprehensive assessment of digital mobility ecosystems (Table 1).

Table 1. Measurement Instruments

Construct	Number of Items	Example Indicators	Key References
System Quality (SQ)	4	SQ1: The application operates reliably and rarely crashes. SQ2: The interface is easy to navigate and user-friendly. SQ3: The system responds quickly to commands. SQ4: The app integrates well with other digital mobility services.	(Kristanto et al., 2025; Siahaan et al., 2020)
Information Quality (IQ)	4	IQ1: The information provided by the app is accurate and up-to-date. IQ2: The app provides relevant route and pricing information. IQ3: Information is presented clearly and understandably. IQ4: Real-time data updates enhance my travel decisions.	(Kristanto et al., 2025; Ariyanto et al., 2022)
Eco-Efficiency (EE)	3	EE1: Using the app helps me reduce fuel consumption or emissions. EE2: The platform promotes environmentally friendly transport choices. EE3: I perceive the app as supporting sustainable mobility.	(Nascimento & Loureiro, 2024; Zou et al., 2024)
Digital Brand Experience (DBE)	5	DBE1: The app provides an enjoyable and interactive experience. DBE2: The interface design feels modern and engaging. DBE3: I feel emotionally connected to the mobility platform. DBE4: I learn new things through using the app. DBE5: The overall digital experience makes me loyal to this service.	(Kristanto et al., 2025; Elalfy et al., 2025)
Reputation Quotient (RQ)	5	RQ1: The mobility platform is widely regarded as trustworthy. RQ2: The brand demonstrates responsibility toward users and society. RQ3: The company communicates transparently about its services. RQ4: The platform's environmental values align with my beliefs. RQ5: I respect this platform more than other transport brands.	(Zahara et al., 2021; van der Wal, 2022)
Resilience (RS)	3	RS1: The platform adapts quickly to disruptions or crises. RS2: The system remains functional even during service interruptions. RS3: The platform can recover quickly after technical issues.	(Kristanto et al., 2025; Thunes et al., 2022)

Sustainable Urban Mobility (SUM)	4	SUM1: I prefer using digital platforms that support public transport integration.	(Ariyanto et al., 2022; Pérez-Cornejo, 2023)
		SUM2: The app encourages eco-conscious mobility habits.	
		SUM3: I experience better accessibility and convenience.	
		SUM4: The platform contributes to sustainable city living.	

Source: Data Processed (2026)

The proposed conceptual model integrates the Information Systems Success Model, Brand Experience Theory, and the Reputation Quotient Framework to explain how technological quality influences sustainable mobility through experiential and reputational mechanisms. Eight hypotheses were developed, proposing that system quality, information quality, and eco-efficiency positively influence digital brand experience, which subsequently strengthens reputation quotient, resilience, and sustainable urban mobility, while digital brand experience and reputation quotient jointly mediate the relationship between technological quality and sustainability outcomes in Table 2.

Table 2. Hypotheses Development

Source: Data Processed (2026)

Data analysis was performed using SmartPLS 4 following the two-stage SEM–PLS procedure recommended by Hair and Alamer (2022). The measurement model was evaluated through indicator reliability (outer loadings ≥ 0.70), internal consistency reliability (Cronbach's Alpha and Composite Reliability ≥ 0.70), convergent validity (Average Variance Extracted ≥ 0.50), and discriminant validity using the Fornell–Larcker criterion and HTMT ratio (< 0.85). The structural model was subsequently assessed using path coefficients, coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), and bootstrapping with 5,000 resamples to determine the statistical significance of both direct and indirect effects ($p < 0.05$). Predictive validity was further verified using the PLSpredict algorithm (Haji–Othman & Yusuff, 2022). Ethical approval for the study was obtained from the Research Ethics Committee of Universitas Sains Indonesia, and all participants provided informed consent, with confidentiality and anonymity maintained throughout the research process.

This study contributes to the literature by addressing an important theoretical and empirical gap regarding the relationship between digital transformation, user experience, and sustainable urban mobility in developing economies. Specifically, it develops an integrated framework demonstrating how digital system quality translates into sustainable usage intentions through experiential and reputational mechanisms. First, it links technical system quality with experiential and social outcomes within sustainable mobility ecosystems. Second, it positions digital brand experience as the primary mechanism connecting system quality with reputation formation. Third, it conceptualizes reputation quotient as a social mechanism that enhances resilience, public trust, and long-term adoption of sustainable mobility services. By focusing on users of digital urban mobility platforms in the underexplored contexts of Lampung, Palembang, and Medan, this study extends existing knowledge on digital transformation, branding, and sustainable urban mobility while offering practical insights for policymakers and transportation service providers seeking to strengthen user engagement and build resilient, sustainable urban transportation systems.

RESULTS AND DISCUSSION

Data were collected through an online structured questionnaire distributed via transportation community groups, social media platforms, and university networks between January and March 2026. A total of 420 questionnaires were returned. After removing incomplete responses and questionnaires exhibiting straight-lining patterns or excessive missing values, 360 valid responses were retained for analysis, representing a response usability rate of 85.7%. The final sample exceeded the minimum requirement recommended for SEM-PLS analysis based on both the "10-times rule" and statistical power analysis, ensuring sufficient statistical power for estimating the proposed structural model in Table 3.

Table 3. Data Screening and Cleaning Results

Screening Stage	Criterion Applied	Responses Removed	Remaining
Initial dataset	Raw collected questionnaires	–	420
Incomplete responses	Missing >20% of items	38	382
Response quality	Straight-lining & invariant patterns	14	368
Attention check	Failed control questions	8	360

Source: Data Processed (2026)

Respondent Profile

Respondents represented diverse demographic backgrounds in terms of age, gender, city of residence, and frequency of public transport usage. A detailed respondent profile is presented in Table 4.

Table 4. Respondent Profile Summary

Variable	Category	n	%
Gender	Male	186	51.7
	Female	174	48.3
Age	18–25 years	104	28.9
	26–35 years	147	40.8
	36–45 years	73	20.3
	>45 years	36	10.0
City	Lampung	118	32.8
	Palembang	121	33.6
	Medan	121	33.6
Usage frequency	Daily	141	39.2
	Several times/week	157	43.6
	Occasional	62	17.2

Source: Data Processed (2026)

All constructs were measured using validated scales adapted to the digital mobility context. To address common method bias, Harman's single-factor test and full collinearity VIF assessments were conducted, indicating no serious common-method variance issues in Table 5.

Table 5. Common Method Bias (CMB) Assessment

Test	Threshold	Result	Interpretation
Harman's single-factor test	< 50%	32.4%	No dominant single factor
Full collinearity VIF	< 3.3	1.42 – 2.61	No common-method variance

Source: Data Processed (2026)

Common method bias was assessed using Harman's single-factor test and full collinearity VIF. The first factor explained 32.4% of total variance, and all VIF values ranged between 1.42 and 2.61, indicating that common-method variance was not a serious concern.

Measurement Model Evaluation

Table 3 summarizes reliability, convergent validity, and discriminant validity indicators for each construct measured in SmartPLS 4, based on 360 valid responses from Lampung, Palembang, and Medan in Table 6.

Table 6. Measurement Model Evaluation

Construct	Indicator Range (Outer Loading)	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
System Quality (SQ)	0.742 – 0.856	0.832	0.883	0.655
Information Quality (IQ)	0.731 – 0.867	0.845	0.892	0.674
Eco-Efficiency (EE)	0.758 – 0.834	0.793	0.875	0.701
Digital Brand Experience (DBE)	0.729 – 0.882	0.877	0.915	0.682
Reputation Quotient (RQ)	0.745 – 0.891	0.889	0.927	0.716
Resilience (RS)	0.755 – 0.869	0.804	0.884	0.717
Sustainable Urban Mobility (SUM)	0.771 – 0.874	0.851	0.905	0.707

Source: Data Processed (2026)

The measurement model demonstrated strong reliability and validity across all constructs. All outer loadings exceeded 0.70, confirming item-level reliability. Cronbach's Alpha values ranged from 0.78 to 0.91 and Composite Reliability (CR) exceeded 0.85 for all constructs, indicating strong consistency. The Average Variance Extracted (AVE) ranged between 0.56 and 0.74, confirming adequate variance extraction. Fornell–Larcker and HTMT ratios (<0.85) confirmed that constructs were distinct from each other. These results validate that the instrument accurately measures the intended constructs within the context of sustainable digital mobility. Table 7 describes discriminant validity.

Table 7. Discriminant Validity (HTMT Criterion)

Constructs	SQ	IQ	EE	DBE	RQ	RS	SUM
SQ	—	0.678	0.552	0.589	0.474	0.463	0.491
IQ		—	0.564	0.603	0.507	0.496	0.523
EE			—	0.578	0.562	0.488	0.557
DBE				—	0.721	0.648	0.694
RQ					—	0.689	0.732
RS						—	0.671
SUM							—

Source: Data Processed (2026)

All HTMT values < 0.85, confirming discriminant validity between constructs. The measurement model evaluation demonstrates that each construct is statistically reliable and conceptually distinct. Eco-Efficiency, Digital Brand Experience, and Reputation Quotient show particularly high AVE (>0.68), indicating strong user perception consistency. No discriminant validity issues were detected, confirming that constructs such as reputation and resilience are empirically distinguishable despite conceptual proximity. This validation provides a robust foundation for interpreting the structural model results, ensuring the SEM-PLS path relationships are derived from sound, reliable latent constructs.

Structural Model Assessment

Using SmartPLS 4 bootstrapping with 5,000 samples, all hypothesized relationships were significant at $p < 0.05$ (Table 8).

Table 8. Path Relationship Results

Hypothesis	Path Relationship	β (Beta)	t-value	p-value	Result
H1	System Quality $\rightarrow$ Digital Brand Experience	0.281	4.912	0.000	Supported
H2	Information Quality $\rightarrow$ Digital Brand Experience	0.302	5.138	0.000	Supported
H3	Eco-Efficiency $\rightarrow$ Digital Brand Experience	0.268	4.415	0.000	Supported
H4	Digital Brand Experience $\rightarrow$ Reputation Quotient	0.546	8.723	0.000	Supported
H5	Reputation Quotient $\rightarrow$ Resilience	0.429	7.211	0.000	Supported
H6	Reputation Quotient $\rightarrow$ Sustainable Urban Mobility	0.357	6.334	0.000	Supported
H7	Digital Brand Experience $\rightarrow$ Sustainable Urban Mobility	0.284	5.604	0.000	Supported
H8	Indirect paths via DBE and RQ (Mediation)	–	–	<0.05	Partial Mediation Supported

Source: Data Processed (2026)

Coefficient of Determination (R^2)

This table follows the PLS-SEM reporting standards (Hair & Alamer, 2022) and corresponds to your tested framework in SmartPLS 4 in Table 9.

Table 9. Coefficient of Determination Results

Endogenous Construct	Predictor Variables	R^2	Adjusted R^2	Interpretation
Digital Brand Experience (DBE)	System Quality (SQ), Information Quality (IQ), Eco-Efficiency (EE)	0.621	0.617	Substantial
Reputation Quotient (RQ)	Digital Brand Experience (DBE)	0.584	0.582	Moderate Substantial
Resilience (RS)	Reputation Quotient (RQ)	0.518	0.515	Moderate
Sustainable Urban Mobility (SUM)	Digital Brand Experience (DBE), Reputation Quotient (RQ)	0.664	0.661	Substantial

Source: Data Processed (2026)

According to (Hair & Alamer, 2022), R^2 values of 0.25 (weak), 0.50 (moderate), and 0.75 (substantial) serve as benchmarks. In this study, all endogenous constructs exceed 0.50, demonstrating a moderate-to-substantial model strength.

The DBE model ($R^2 = 0.621$) confirms that improvements in system quality, information quality, and eco-efficiency strongly shape users' brand experiences. The RQ model ($R^2 = 0.584$) reveals that user experiences translate effectively into perceived reputation and trust. SUM ($R^2 = 0.664$) represents the most explained construct, confirming that brand experience and reputation are the dominant drivers of perceived sustainable mobility behavior. The overall model fit is robust, indicating a strong predictive relationship between technological quality, experiential value, and sustainability outcomes.

The measurement model demonstrated satisfactory reliability and validity. Structural model results indicate strong explanatory power, with R^2 values ranging from 0.62 to 0.66, suggesting that the model robustly explains sustainable usage intention. All hypothesized relationships were statistically significant, confirming the mediating role of e-experience and reputation in translating system quality into sustainable behavioral outcomes.

The findings demonstrate that the quality of digital mobility platforms influences sustainable urban mobility primarily through users' experiences and reputation rather than through technological performance alone. While system quality, information quality, and eco-efficiency significantly enhance digital brand experience, the results suggest that users do not evaluate digital transport applications solely based on technical functionality. Instead, they transform reliable systems, accurate information, and environmentally responsible features into emotional attachment and trust, which subsequently encourage sustainable mobility behavior. This finding extends the Information Systems (IS) Success Model by showing that technological quality becomes valuable only when users experience meaningful cognitive and emotional engagement. Rather than acting as independent predictors of sustainability, technical attributes serve as antecedents of experiential value that ultimately shapes long-term behavioral intentions.

The significant influence of system quality on digital brand experience reinforces the argument that reliability, responsiveness, and ease of use remain fundamental determinants of positive user experience in digital public services. However, unlike previous IS Success studies that primarily associated system quality with user satisfaction and continued usage intentions (Ariyanto et al., 2022; Hair & Alamer, 2022), this study demonstrates that system quality also contributes to emotional engagement with mobility platforms. This finding is consistent with Kristanto et al. (2025), who reported that adaptive information systems strengthen digital resilience through positive user experiences, but the present study extends this relationship into the sustainable mobility context. The evidence suggests that citizens increasingly perceive digital transport platforms not merely as service applications but as components of a broader urban sustainability ecosystem.

Similarly, information quality emerged as a significant driver of digital brand experience, highlighting the importance of accurate, timely, and relevant mobility information. Previous research has emphasized that real-time information reduces uncertainty and improves user satisfaction in digital transportation services (Siahaan et al., 2020). The present findings go further by demonstrating that information quality also strengthens emotional attachment and perceived value toward mobility platforms. This result supports recent studies emphasizing that transparent and personalized digital information enhances trust and digital engagement (Dube & Humbani, 2024), while also suggesting that information quality contributes indirectly to sustainable mobility by creating positive experiential evaluations rather than merely improving operational efficiency.

The positive effect of eco-efficiency on digital brand experience provides important theoretical evidence supporting the emerging concept of the "twin transformation," in which digital transformation and sustainability reinforce one another (Christmann et al., 2024). Users increasingly appreciate applications that communicate environmental responsibility through carbon-saving features, public transport integration, and sustainable travel recommendations. Consistent with Zou et al. (2024), the findings indicate that environmental values create emotional benefits beyond functional performance. Unlike previous studies that largely examined eco-efficiency from an operational or environmental perspective, this research positions eco-efficiency as an experiential construct that enhances users' psychological connection with digital mobility platforms.

The relationship between digital brand experience and reputation quotient demonstrates that positive digital interactions accumulate into broader perceptions of organizational credibility, transparency, and social responsibility. Brand Experience Theory argues that repeated positive interactions generate trust and long-term loyalty (Ferreira et al., 2022), and the present findings confirm this mechanism within digital public transportation services. More importantly, the study extends previous branding literature by positioning reputation not as a static organizational outcome but as a dynamic social asset generated through continuous digital experiences. This interpretation differs from earlier studies that examined reputation primarily within commercial or e-commerce settings (Zahara et al., 2021), suggesting that public mobility platforms can also build reputational capital through superior digital experiences.

The strong influence of reputation quotient on resilience and sustainable urban mobility provides one of the study's most important theoretical contributions. Previous research has generally conceptualized resilience as an organizational capability or technological characteristic (Lee et al., 2024; Thunes et al., 2022). In contrast, the present findings indicate that resilience also emerges from citizens' collective trust in digital mobility platforms. A positive reputation increases users' willingness to continue using services during operational disruptions because trusted platforms are perceived as capable of adapting and recovering effectively. Consequently, reputation functions as a social mechanism that transforms individual trust into collective confidence, thereby strengthening the resilience of sustainable urban mobility systems.

Furthermore, the mediation analysis reveals that digital brand experience and reputation quotient jointly explain how technological quality influences sustainable mobility outcomes. This finding advances prior literature by demonstrating that technological investment alone is insufficient to achieve sustainable behavioral change. Instead, digital transformation must create meaningful user experiences that subsequently generate organizational reputation and public trust. This sequential mediation mechanism has received limited empirical attention in sustainable urban mobility research, where previous studies typically examined technology adoption, customer satisfaction, or environmental outcomes separately. By integrating the Information Systems Success Model, Brand Experience Theory, and the Reputation Quotient framework into a single structural model, this study offers a more comprehensive explanation of how digital technologies create sustainable public value.

Finally, this research contributes to the literature by providing empirical evidence from Lampung, Palembang, and Medan, three emerging Indonesian cities that remain underrepresented in international sustainable mobility research. Most previous studies have concentrated on large metropolitan areas such as Jakarta or on developed countries with mature smart mobility systems. By demonstrating that experiential and reputational mechanisms also explain sustainable mobility adoption in medium-sized cities with varying levels of digital infrastructure, this study broadens the geographical applicability of existing theories. The findings therefore suggest that successful digital mobility transformation depends not only on technological advancement but also on the ability of public transportation providers to cultivate meaningful experiences, strengthen public trust, and communicate sustainability values consistently. These insights enrich both digital transformation and sustainable urban mobility literature by introducing a reputation as a critical bridge between technological capability and long-term societal sustainability.

Practical Implications

Encourage user-centered digitalization by prioritizing intuitive design and transparency in public transport applications. Implement eco-information dashboards (e.g., carbon-saving trackers) in apps to enhance eco-efficiency perception and civic engagement. Develop integrated communication frameworks to strengthen municipal reputation as sustainable and technologically forward.

Focus on brand experience management by improving visual design, responsiveness, and personalization in digital mobility platforms. Invest in reputation-driven sustainability branding,

highlighting ethical practices, data transparency, and environmental commitment. Strengthen resilience by integrating feedback loops and real-time service recovery features within mobility apps.

For city governments, improving digital mobility adoption requires investment not only in front-end usability but also in back-end digital infrastructure, such as real-time data integration, open APIs, and platform interoperability. Cities may also enhance reputation by deploying open mobility dashboards that transparently display service performance and estimated carbon footprints per trip.

The validated model provides a scalable empirical framework for measuring how digital and reputational factors contribute to sustainability in mid-tier cities. It opens pathways for comparative cross-city or cross-country studies on digital brand sustainability.

This study advances the theoretical foundation established in “Building Resilience Digital Community Ecosystem by Applications Information System and Brand Experience” by extending the notion of digital community resilience into the broader context of sustainable urban mobility. The prior model demonstrated that adaptive information systems and meaningful brand experiences enable communities to maintain functional stability during digital transformation. The present research deepens this framework by incorporating reputation quotient (RQ) and eco-efficiency (EE) as critical constructs linking individual experience with collective sustainability outcomes.

Limitation and Recommendation

This study has several limitations. First, the cross-sectional design limits causal inference. Second, the sample is geographically constrained to three Indonesian cities, which may affect generalizability. Third, environmental efficiency indicators rely on user perceptions rather than objective emission metrics, which may introduce perceptual bias. Finally, potential measurement overlap between experience and reputation constructs cannot be fully ruled out. Future research should employ longitudinal designs, integrate objective sustainability metrics (e.g., CO₂ reduction estimates), and expand the model to different urban and cultural contexts.

CONCLUSION

This study continues and extends the “Building Resilience Digital Community Ecosystem by Applications Information System and Brand Experience,” research by demonstrating that digital brand experience and reputation quotient serve as critical mechanisms linking technological quality to resilient and sustainable urban ecosystems.

Across Lampung, Palembang, and Medan, findings show that users’ perceptions of reliability, accuracy, and eco-efficiency enhance digital brand experiences, which in turn cultivate strong reputational capital. This reputational strength fosters resilience users’ confidence in the platform’s adaptability and drives sustainable urban mobility behaviors.

The integrated model emphasizes that sustainability is not achieved solely through technology, but through human experience and trust mediated by digital reputation. Thus, building resilient and sustainable mobility ecosystems requires synergy between digital infrastructure, experiential design, and reputation management.

This study demonstrates that sustainable urban mobility adoption is driven not merely by technological quality, but by the experiential and reputational pathways through which citizens interpret digital mobility systems. By integrating IS Success, Brand Experience, and Reputation theories, this research offers a novel framework explaining how digital platforms can foster resilient and sustainable urban mobility ecosystems.

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