

# Building Jakarta's Global-City Advantage via Super-App Mobility: Pathways from Accessibility and Value to Tourist Loyalty

Andhi Sukma<sup>1</sup>

<sup>1</sup>Department of Doctor of Economics, Parahyangan Catholic University, Indonesia

## Abstract

This study examines the impact of the quality of integration of a mobility super-app on tourists' judgments and loyalty in a megacity context. Grounded in a Stimulus–Organism–Response perspective, we investigate a sequential process linking super-app integration to perceived accessibility, destination image, perceived value, tourist engagement, and loyalty, while also examining the roles of safety and security, as well as technology readiness. Survey data from 419 recent visitors to Jakarta who used a mobility super-app were analysed via a two-stage PLS-SEM procedure with bootstrapping and blindfolding. Integration quality increased perceived accessibility ( $\beta = 0.559$ ,  $p < 0.001$ ) and perceived value ( $\beta = 0.300$ ,  $p < 0.001$ ). Perceived accessibility strongly improved the destination image ( $\beta = 0.797$ ,  $p < 0.001$ ), but did not directly increase perceived value; instead, the destination image predicted perceived value ( $\beta = 0.564$ ,  $p < 0.001$ ). Perceived value drove tourist engagement ( $\beta=0.610$ ,  $p<0.001$ ) and, together with engagement, underpinned loyalty (value→loyalty:  $\beta=0.204$ ,  $p=0.046$ ; engagement→loyalty:  $\beta=0.539$ ,  $p<0.001$ ). Safety and security strengthened engagement ( $\beta = 0.254$ ,  $p < 0.001$ ), but showed no direct effect on value. Technology readiness did not significantly moderate the effects of integration on accessibility or value. Explained variance was substantive ( $R^2$ : perceived value=0.737; engagement=0.789; loyalty=0.604) with positive predictive relevance. The findings reposition destination image as the cognitive bridge, converting mobility affordances into value judgments, while safety primarily energizes engagement. Practically, investments in tighter integration, trustworthy real-time information, legible routing, and seamless payments can translate travel ease into value, engagement, and durable loyalty among urban visitors.

**Keywords:** super-app integration; perceived accessibility; destination image; tourist engagement; revisit intention; PLS-SEM.

## 1. Introduction

Jakarta has positioned itself as an aspiring global city and is investing in technology-led reforms to elevate its tourism offer. Central to this agenda is integrating super-apps that consolidate public transport, digital payments, and real-time information into a single touchpoint. Such platforms promise seamless mobility and a clear wayfinding experience in an urban environment where fragmented modes—Mass Rapid Transit (MRT), TransJakarta (TJ), and the Commuter Line (KRL)—often create uncertainty and deter movement. Practical frictions related to safety, inconsistent information, and climate-induced discomfort—most notably extreme heat and congestion—further complicate access and depress the perceived value of the destination. These conditions can erode tourist loyalty, underscoring the need for

a robust platform ecosystem to sustain engagement and repeat patronage (Ponsignon & Derbaix, 2020).

A scientific rationale emerges from contemporary work on digital ecosystems in urban tourism: perceived accessibility and value act as pivotal drivers of loyalty, with super-app functionality as the stimulus that restructures travel cognition and behaviour (Lumivalo et al., 2023). The present study focuses on visitors to Jakarta within the last twelve months, examining their mobility experiences and loyalty outcomes. Adopting a deductive stance, the inquiry connects conceptual advances with observed gaps, articulates targeted research questions, and specifies objectives to trace the pathways from Accessibility and value to loyalty in the tourism context of Jakarta (Xiang et al., 2024).

Despite a growing body of research, much of the evidence is concentrated in developed-country settings, leaving the Indonesian context comparatively under-examined. Studies addressing Fear of Missing Out (FoMO) and its links to tourist experience and loyalty remain sparse in Indonesia (Kim et al., 2022). Likewise, while social-media engagement has been widely explored in marketing scholarship, its implications for loyalty within Indonesian tourism—especially when intersecting with service quality and FoMO—are only partially understood. This lacuna is amplified by the limited testing of generational cohort effects as potential contingencies in loyalty formation (Xiang et al., 2024).

Beyond these thematic gaps, there is a notable absence of research that connects the quality of super-app integration to perceived Accessibility, value, and tourist loyalty within a single, continuous framework in Southeast Asian urban settings. Existing work often isolates app-use intention or service satisfaction, with insufficient attention to the mechanisms that lead to loyalty (Ponsignon & Derbaix, 2020). Moreover, Technology Readiness (TRI) has been inconsistently considered a boundary condition along digital pathways from integration to Accessibility and value. Safety and security dimensions—frequently treated in isolation—should be incorporated as integral antecedents shaping value appraisals and engagement patterns in urban tourism (Jang et al., 2021).

Accordingly, the study addresses the following question: How does the quality of super-app integration influence perceived accessibility (RQ1)? What is the relationship between perceived Accessibility and destination image (RQ2), and how do these constructs in turn affect perceived value (RQ3), tourist engagement (RQ4), and, ultimately, loyalty (RQ5)? Additionally, does super-app integration directly impact perceived value, and in what ways do safety perceptions contribute to the formation of value (RQ6)? The moderating role of technology readiness is also examined to clarify differential responsiveness within the digital engagement landscape (Kim et al., 2022).

The objectives are fourfold. First, to test the effects of super-app integration quality on perceived Accessibility and perceived value. Second, to map the interrelationships among perceived Accessibility, destination image, perceived value, tourist engagement, and loyalty. Third, to evaluate the contribution of safety perceptions and to verify serial mediation from super-app integration through Accessibility, image, value, and engagement to loyalty. Fourth, to assess the moderating role of technology readiness and, based on this assessment, derive policy and partnership implications for Jakarta's tourism ecosystem (Xiang et al., 2024).

The significance of this work is threefold. Theoretically, it extends Stimulus–Organism–Response reasoning to an urban tourism setting mediated by platform ecosystems. The analysis

identifies priorities for practice, including interoperable ticketing, accurate real-time information, last-mile connectivity, and cross-partner loyalty programs aligned with trustworthy payments. From a policy perspective, the study addresses the standardization of QRIS and loyalty systems, data-sharing arrangements, and the enhancement of digital security. Socially, it aims to support inclusive mobility, enhance Jakarta's reputation as a global destination, and amplify local economic benefits (Jang et al., 2021; Xiang et al., 2024).

## **2. Literature Review**

### **2.1 Theoretical Foundations**

Anchoring the present inquiry, the Stimulus–Organism–Response (S–O–R) model provides a coherent lens for tracing how platform qualities translate into behavioural outcomes within Jakarta's urban tourism system. In this framework, super-app integration quality (SAIQ) and safety and security perceptions (SAFE) serve as stimuli that influence organismic states—namely, perceived Accessibility (PACC), destination image (DI), perceived value (PV), and tourist engagement (TE). When integration is effective and tourists feel secure, they are more likely to judge the city as easy to navigate and technologically capable, which subsequently elevates value judgments and activates engagement; these organismic shifts are expected to culminate in tourist loyalty (LOY) (Jang et al., 2020). Extending the account, Service-Dominant (S–D) logic underscores value cocreation within the mobile platform ecosystem, emphasising that tourists and providers jointly configure benefits through interactive use, feedback, and embedded relationships (Eletxigerra et al., 2021; Font et al., 2021). Because responsiveness to these stimuli varies, the Technology Readiness Index (TRI) is posited as a moderating boundary condition that conditions how users appropriate features and translate them into Accessibility and value. Finally, value-based adoption theory situates PV and service integration within consumer appraisal: travellers favour platforms that compress effort, deliver informative and connected journeys, and heighten experiential surplus, thereby reinforcing loyalty formation over time (Polydoropoulou et al., 2020).

### **2.2 The Influence of Super-App Integration Quality, Accessibility, and Value**

Integrating diverse mobility services within a single super-app reduces the cognitive load of multimodal travel by consolidating fragmented decisions across public transportation and ride-hailing into a single interface. By bundling ticketing, real-time information, routing, payments, and service reliability, super-apps compress search and coordination costs, stabilise expectations, and enable door-to-door movement for visitors. In S–O–R terms, super-app integration quality (SAIQ) functions as a stimulus that reshapes organismic states: uncertainty is reduced, route planning becomes simpler, and travelers infer that the city is easier to navigate, thereby elevating perceived Accessibility (PACC). Simultaneously, fewer frictions, better timing, and transparent transactions generate a surplus of benefits over costs, which is appraised as a higher perceived value (PV). Tourism research shows that end-to-end service delivery enhances evaluations and supports downstream outcomes, including satisfaction and loyalty (Purohit et al., 2022; Vojtko et al., 2020). Building on this literature, and aligning with evidence that platform integration can colour cost–benefit judgements (So et al., 2020; Yang et al., 2023), the study foregrounds Accessibility and value as proximate appraisals through

which SAIQ is likely to exert influence in Jakarta's urban context. Accordingly, the following hypotheses are advanced:

H1: Super-app integration quality (SAIQ) positively affects perceived Accessibility (PACC).

H2: Super-app integration quality (SAIQ) positively affects perceived value (PV).

### **2.3 Accessibility and Destination Image**

Perceived Accessibility (PACC) is increasingly recognised as a primary antecedent of urban destination evaluations. In dense cities like Jakarta, attributes such as predictable travel times, legible intermodal connections, and affordable, reliable access reduce cognitive effort and travel anxiety, allowing visitors to form mental maps of the city. When movement feels easy and intelligible, tourists infer order, capability, and technological competence, qualities that accumulate into a favourable destination image (DI). In this sense, PACC does not merely facilitate movement; it serves as a diagnostic cue about how the city is organized and governed, signaling efficiency (Blandin et al., 2024). A strengthened DI, in turn, frames cost–benefit judgements. Through halo and anchoring processes, a modern image raises expectations of reliability, compresses perceived risk, and enhances assessments of time outlays, thereby elevating perceived value (PV). Recent studies in tourism corroborate these linkages, showing that Accessibility enhances brand judgments and that image systematically influences value appraisals and downstream behavioral intentions (Barlette et al., 2021; Hrankai & Mak, 2025; Yang et al., 2023). Collectively, this literature implies a sequential pathway from mobility affordances to symbolic appraisals and value.

H3: Perceived Accessibility (PACC) has a positive effect on destination image (DI).

H4: Perceived Accessibility (PACC) positively affects perceived value (PV).

H5: Destination image (DI) positively affects perceived value (PV).

### **2.4 Value and Engagement toward Loyalty**

Perceived value (PV) captures tourists' integrative appraisal of benefits relative to sacrifices, combining time and cost efficiency with comfort, enjoyment, and reduced hassle across the journey. In digitally mediated urban tourism, super-app platforms can enhance PV by reducing search and coordination costs, offering transparent pricing, and providing reliable real-time information and tailored promotions. Higher PV, in turn, energizes tourist engagement (TE). This multifaceted state spans cognitive immersion (information seeking and planning), affective connection (attachment and enjoyment), and behavioral participation (content sharing, cocreation, and continued use). As engagement accumulates through repeated, friction-light interactions with city-linked services, visitors develop habits, identification, and advocacy, translating into revisit and recommendation intentions central to loyalty formation. This pathway also benefits from network effects, as engaged users generate signals and content that support others' value evaluations. While some studies note reciprocal influences between engagement and value, the weight of evidence in hospitality and tourism suggests that value judgements typically precede and catalyse deeper engagement, which subsequently anchors loyal behaviours, particularly in complex, multi-actor service ecosystems such as urban mobility (Cranmer et al., 2020; Liu-Lastres et al., 2020). Against this backdrop, the study outlines a sequential mechanism that links value to engagement and engagement to loyalty in Jakarta's platform-enabled context.

H6: Perceived value (PV) positively affects tourist engagement (TE).

H7: Tourist engagement (TE) positively affects tourist loyalty (LOY).

## **2.5 Direct Effects of Value and Safety**

Within tourism research, the direct roles of perceived value (PV) and safety and security perceptions (SAFE) are central to understanding loyalty formation in urban destinations. PV arises when travellers judge that benefits—time and cost efficiencies, reliable performance, and enjoyment—outweigh sacrifices. Even where platform use is light, such appraisals can prompt intentions to revisit and recommend, thereby consolidating loyalty (LOY). SAFE contributes complementary assurance. Physical safety at stations, interchanges, and public spaces reduces risk, while robust digital safeguards during payments and data exchange mitigate privacy and fraud concerns. Together, these conditions stabilise expectations, dampen uncertainty, and increase the utility derived from the journey. Empirical work repeatedly shows that higher perceived safety improves value judgements and, through them, behavioural outcomes tied to loyalty (Lee & Chen, 2020; Wang & López, 2020). These mechanisms are especially consequential for platform-mediated mobility in cities like Jakarta, as risk-sensitive visitors rely on signals indicating that the environment is predictable and secure; they assign greater value to the services used and the destinations encountered (Lu & Atadil, 2021). Synthesising these insights, the study posits two direct effects alongside existing pathways:

H8: Perceived value (PV) positively affects loyalty (LOY).

H9: Safety and security perception (SAFE) positively affects perceived value (PV).

## **2.6 Safety, Engagement, and the Serial Pathway to Loyalty**

In urban tourism, perceived safety and security (SAFE) are foundational conditions that enable deeper participation in destination experiences. When travellers judge environments as predictable and secure—across both the physical layer (stations, interchanges, public spaces) and the digital layer (payments, data protection)—they discount risk, devote more attention to exploration, and exhibit greater willingness to interact with services and content. Such confidence translates into tourist engagement (TE) in cognitive, affective, and behavioural forms: searching and planning, responding to offers, trialling new routes, and sharing user-generated content. Empirical evidence links favorable safety judgements to heightened engagement and approach behaviours, reinforcing that SAFE is a critical precursor to loyalty formation (Lin et al., 2021; Ribeiro et al., 2021). Complementing this, the integration quality of mobility platforms (SAIQ) is expected to catalyse a sequence of organismic appraisals that progressively anchor loyalty. Specifically, integrated ticketing, real-time information, seamless routing, payments, and reliability should elevate perceived Accessibility (PACC) and strengthen destination image (DI); these, in turn, enhance perceived value (PV) and activate engagement, culminating in tourist loyalty (LOY) (Al-Ansi et al., 2024; Alipour et al., 2020). This serial logic accords with Stimulus–Organism–Response reasoning and clarifies the mechanisms by which platform design and safety co-produce durable attachment in complex urban settings.

H10: Safety and security perception (SAFE) positively affects tourist engagement (TE).

H11: The effect of super-app integration quality (SAIQ) on tourist loyalty (LOY) is serially mediated by perceived Accessibility (PACC), destination image (DI), perceived value (PV), and tourist engagement (TE).

## 2.7 Technology Readiness as a Boundary Condition

Technology readiness (TRI) serves as a boundary condition that shapes how tourists utilize super-app capabilities in urban mobility. Travellers high in TRI navigate e-ticketing, real-time information, multimodal routing, and digital payments more fluently, attribute greater credibility to live data, and perceive lower coordination costs. This proficiency strengthens the translation of super-app integration quality (SAIQ) into perceived Accessibility (PACC) and perceived value (PV). Conversely, low-TRI users face steeper learning costs, underutilize features, and discount the quality of information, thereby weakening the benefits. Prior studies document TRI's moderating influence on engagement, satisfaction, and technology-enabled outcomes, and point to readiness-building interventions that reduce barriers (Jang et al., 2020; Jiang et al., 2024; Rather et al., 2023). In tourism platforms, readiness aligns with the depth of adoption and the capacity to co-create value during search, planning, and on-the-move decision-making, yielding heterogeneous effects even under identical service conditions (Esmailpour et al., 2022). Accordingly, TRI is positioned as a key contingency conditioning accessibility gains and value appraisals in Jakarta's information-rich super-app infrastructure.

H12: Technology readiness (TRI) positively moderates the effect of super-app integration quality (SAIQ) on perceived Accessibility (PACC), with a more substantial effect at higher TRI.

H13: Technology readiness (TRI) positively moderates the effect of SAIQ on perceived value (PV), being stronger at higher TRI levels across heterogeneous user segments in Jakarta's visitor population.

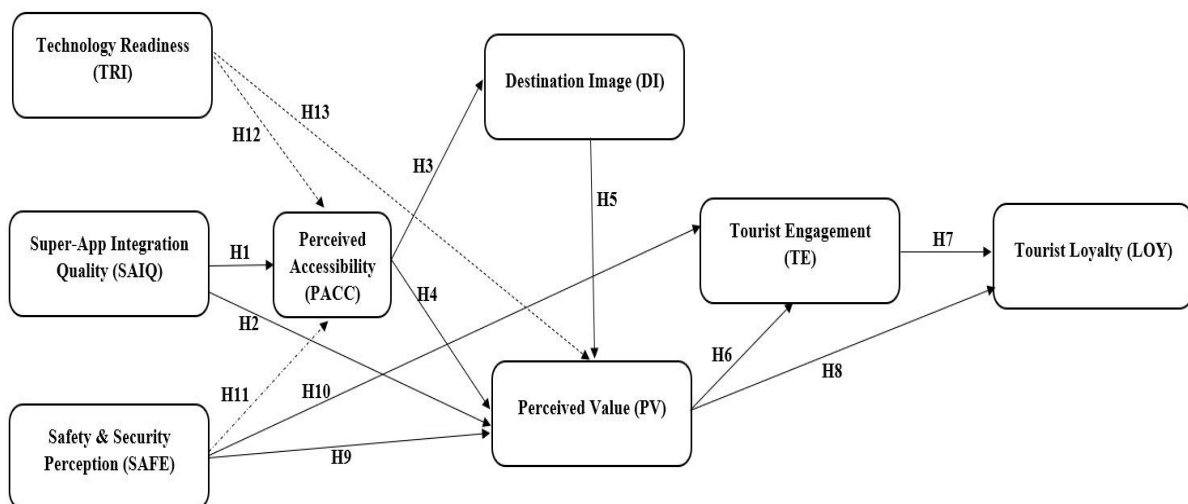


Figure 1. Conceptual Framework

## 3. Materials and Methods

### 3.1 Design Study

We employed a cross-sectional survey targeting recent visitors to Jakarta who had used a mobility super-app during their trip. Two screening questions ensured eligibility (“visited Jakarta in the last 12 months” and “used a super-app while visiting”). The self-administered questionnaire, delivered online, comprised 53 Likert-type items (1 = strongly disagree to 5 = strongly agree) covering the thirteen constructs detailed in Section 3.3. Items were adapted from prior studies, translated into Bahasa Indonesia, and refined through expert review and a small pilot study to ensure clarity and cultural appropriateness.

In total, 530 eligible responses were obtained; after standard data-quality checks (missing values, speeders, and straight-lining), 419 cases remained for analysis. Partial Least Squares Structural Equation Modelling (PLS-SEM) was conducted in SmartPLS 3. Stage 1 assessed the measurement and baseline structural model; Stage 2 tested additional direct paths and moderation by technology readiness using the two-stage interaction approach. Inference relied on bias-corrected bootstrapping. Participation was voluntary and anonymous.

### **3.2. Sampling & Data Collection**

We employed purposive, screening-based sampling to target the focal population: recent visitors to Jakarta who had utilized a mobility super-app during their trip. An online questionnaire (in Bahasa Indonesia, with English cross-checks) was distributed via traveller communities and social media groups frequented by both domestic and international visitors. Two eligibility screens (“visited Jakarta in the last 12 months” and “used a super-app while visiting”) gated entry. Unique-response controls (single-use link and time-stamp checks) limited duplicates.

A total of 530 eligible cases were gathered. Standard data-quality procedures—attention checks, response-time flags, and straight-lining detection—excluded low-quality records, yielding 419 analysable responses. This exceeds the standard PLS-SEM adequacy rules (e.g., the “10-times rule”) for the most complex endogenous construct, providing sufficient statistical power. Participation was voluntary and anonymous, with informed consent embedded at the outset. The cleaned dataset underpins the analyses in Stage 1 (measurement and baseline structural assessment) and Stage 2 (additional direct and moderated effects) in SmartPLS 3.

### **3.3. Measures & Instrument**

All constructs in this study were measured using multi-item scales adapted from previous research, ensuring validity and contextual relevance to Jakarta’s super-app mobility ecosystem. Each item was rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Destination Image (4 items) reflected tourists’ perceptions of Jakarta as a technologically advanced, safe, and innovative destination (Alipour et al., 2020; He et al., 2023; Styliadis, 2020; Sun et al., 2023). E-Ticketing & Fare Integration (4 items) assessed ease of use, fare transparency, and service integration within the super-app (Aleshinloye et al., 2021; Guidon et al., 2020). Perceived Accessibility (4 items) captured the ease of finding, using, and integrating multiple transportation modes through the app (Blandin et al., 2024; Oestreich et al., 2023). Perceived Value (5 items) examined the trade-off between benefits and costs of using digital mobility services (Yang et al., 2023; Ye et al., 2020).

Real-Time Information Quality (4 items) evaluated the accuracy, timeliness, and reliability of transport updates (Zhu et al., 2022). Revisit Intention (3 items) measured tourists' likelihood of returning to Jakarta (Tan & Li, 2023). Safety & Security Perception (4 items) assessed the perceived safety of mobility and environment (Wang & López, 2020). Seamless Routing & Wayfinding (4 items) referred to ease of navigation and multimodal integration (Cranmer et al., 2020). Service Reliability (4 items) captured the consistency and dependability of digital mobility services (Zhang et al., 2020). Technology Readiness (5 items) measured tourists' comfort, openness, and confidence in adopting digital tools (Ling et al., 2023; Rather et al., 2023; Wei et al., 2025). Tourist Engagement (5 items) reflected cognitive, affective, and behavioural involvement with the destination (Ye et al., 2020). Universal Payment & Reward (4 items) assessed the convenience and perceived fairness of digital payments and loyalty schemes (Yang et al., 2023). Word of Mouth (3 items) captured tourists' willingness to recommend Jakarta via personal or digital networks (Vojtko et al., 2020).

### **3.4. Data Analysis Strategy (PLS-SEM)**

We employed variance-based PLS-SEM in SmartPLS 4, reflecting the study's focus on prediction and model complexity. Stage 1 estimated a reflective measurement model and a baseline structural model. Indicator reliability (outer loadings  $\geq 0.70$ ), internal consistency (Cronbach's  $\alpha$ ,  $\rho_A$ , and composite reliability), and convergent validity (AVE  $\geq 0.50$ ) were evaluated, alongside multicollinearity checks (outer VIF) and discriminant validity using Fornell–Larcker and HTMT. The structural model was then assessed using path coefficients, inner VIF, explanatory power ( $R^2$ ), local effect sizes ( $f^2$ ), and predictive relevance, as measured by blindfolding  $Q^2$  (Hult et al., 2021).

Stage 2 added theorized direct paths and two moderation terms (SAIQ  $\times$  TRI  $\rightarrow$  PACC and SAIQ  $\times$  TRI  $\rightarrow$  PV). Interactions were specified with the orthogonalising approach in SmartPLS (yielding uncorrelated product terms), and conditional effects were probed by interpreting simple slopes at higher versus lower TRI. The significance of all relationships was tested using non-parametric bootstrapping (5,000 resamples), reporting coefficients, standard errors, t-values, and two-tailed p-values, complemented by figures and tables summarizing main, indirect, and conditional effects.

### **3.5. Reliability, Validity & Bias Mitigation**

We assessed reliability, validity, and potential biases using a multi-step protocol. Indicator reliability was first examined; items with loadings of 0.70 or greater were retained, while those with loadings between 0.40 and 0.70 were kept only when theory warranted and construct reliability remained acceptable. Internal consistency was gauged via Cronbach's alpha,  $\rho_A$ , and composite reliability (targets  $\geq 0.70$ ). Convergent validity was evaluated through AVE ( $\geq 0.50$ ). Discriminant validity was established using both Fornell–Larcker (square-root AVE exceeding inter-construct correlations) and HTMT ( $< 0.85$  conservative;  $< 0.90$  liberal), with bootstrap confidence intervals not crossing 1. Multicollinearity was monitored using outer and inner VIFs (preferably  $< 3.3$ ; tolerable  $< 5$ ) (Hair et al., 2024). To mitigate common method bias, we used ex-ante procedures (anonymity assurances, neutral wording, varied scale anchors, and separation of predictor/criterion blocks) and ex-post diagnostics, including full collinearity VIFs and a standard latent factor sensitivity check.

Screening rules and removal of straight-liners strengthened data quality; descriptive checks flagged no problematic missingness. Inference relied on non-parametric bootstrapping, limiting distributional assumptions.

## 4. Result

### 4.1. Descriptive Statistics and Respondent Profile

In Table 1, it is explained that all 530 respondents passed the screening (a Jakarta visit in the past year and super-app use). The gender split is broadly even (female 50.0%, male 47.9%; 2.1% non-binary/prefer not to say). Ages are skewed towards younger travellers, with the 25–34 age group being the largest (35.1%), followed by the 18–24 age group (25.1%). Most participants are Indonesian nationals (77.9%). Leisure dominates the trip purpose (70.0%), with many being first-time visitors (40.0%). Typical stays are one to two nights (40.0%) or three to four nights (27.9%), and accommodation is concentrated in the CBD (35.1%). Travel parties are usually pairs (37.9%) or solo (30.0%). Android is the prevailing mobile OS (77.9%). Education is essentially at the bachelor's level (47.9%). Income centres on IDR 5–<10 million (30.0%), with 9.8% declining to disclose their income.

**Table 1.** Attributes of review respondents

Respondent Attributes	Categories	Frequency (N)	Percentage (%)
Screening: Visit to Jakarta in the last 12 months	Yes (included)	530	100
	No (excluded)	0	0
Screening: Used super-app mobility during the visit	Yes (included)	530	100
	No (excluded)	0	0
Gender	Male	254	47.9
	Female	265	50
	Non-binary / Prefer not to say	11	2.1
Age group (years)	18–24	133	25.1
	25–34	186	35.1
	35–44	117	22.1
	45–54	64	12.1
	55+	30	5.7
Nationality/Origin	Indonesia	413	77.9
	Non-Indonesia	117	22.1
Primary trip purpose	Leisure	371	70
	Business	133	25.1
	Other	26	4.9
Visit frequency to Jakarta	First-time	212	40
	2–3 times	186	35.1
	4–5 times	80	15.1
	≥6 times	52	9.8
Length of stay (last trip)	Daytrip (no overnight)	95	17.9
	1–2 nights	212	40
	3–4 nights	148	27.9
	≥5 nights	75	14.2

Accommodation location (last trip)	CBD (Thamrin–Sudirman–Kuningan)	186	35.1
	North/West Jakarta	106	20
	East/South Jakarta	143	27
	Outside Jakarta	95	17.9
Travel party size	Solo	159	30
	2 people	201	37.9
	3–4 people	133	25.1
	≥5 people	37	7
Mobile OS used	Android	413	77.9
	iOS	106	20
	Other	11	2,1
Highest education	High School	95	17,9
	Diploma	74	14
	Bachelor	254	47,9
	Postgraduate	95	17,9
	Other	12	2,3
Monthly income	< IDR 5 million	133	25,1
	IDR 5–<10 million	159	30
	IDR 10–<20 million	133	25,1
	≥ IDR 20 million	53	10
	Prefer not to say	52	9,8

#### 4.2. Stage 1: Data Screening and Preparation

The analysis opened with an audit of the survey file. From 530 raw cases, we applied straight-liner detection (zero variance across Likert blocks and long-string checks) and removed patterned responses. The final working sample comprised 419 respondents with no missing values. Measurement coverage remained robust, with 53 reflective indicators spanning 12 latent constructs retained, all coded in the original direction. Before modelling, variables were inspected for outliers, distributional quirks, and plausible ranges, and then standardised where needed to match metric assumptions in PLS-SEM. This screening ensures that estimates reflect relationships rather than artefacts of careless responding. The cleaned dataset, its inclusion criteria, and dispositions of excluded cases are documented to enable replication and provide a defensible basis for the subsequent measurement and structural assessments.

#### 4.3. Data Screening and Preparation

Table 2 consolidates all reflective indicators that load firmly ( $\geq 0.70$ ), supporting item reliability and convergent validity; this is reinforced by AVE values above 0.50 and composite reliabilities comfortably exceeding 0.70. Internal consistency is satisfactory as Cronbach's  $\alpha$  ranges from 0.770 (Revisit Intention) to 0.936 (E-Ticketing). Discriminant validity, assessed via HTMT, is broadly acceptable; nevertheless, a few pairs—most notably Perceived Value–Tourist Engagement and Service Reliability–Seamless Routing—approach or slightly exceed the 0.90 reference, suggesting conceptual proximity. These instances warrant sensitivity checks (e.g., HTMT confidence intervals or model respecification) but do not undermine the overall adequacy of the measurement model.

**Table 2.** Measurement Model (reflective constructs)

Construct	Items (N)	Loading range	$\alpha$	CR	AVE
Destination Image	4	0.800–0.884	0.864	0.908	0.712
E-Ticketing & Fare Integration	4	0.879–0.937	0.936	0.954	0.839
Perceived Accessibility	4	0.787–0.888	0.862	0.907	0.709
Perceived Value	5	0.727–0.824	0.859	0.898	0.639
Real-Time Information Quality	4	0.826–0.901	0.889	0.923	0.751
Revisit Intention	3	0.769–0.868	0.770	0.868	0.687
Safety & Security Perception	4	0.869–0.915	0.921	0.944	0.807
Seamless Routing & Wayfinding	4	0.756–0.916	0.890	0.925	0.756
Service Reliability	4	0.783–0.869	0.845	0.896	0.683
Technology Readiness	5	0.721–0.837	0.857	0.898	0.637
Tourist Engagement	5	0.704–0.788	0.810	0.867	0.567
Universal Payment & Reward	4	0.833–0.902	0.896	0.927	0.761
Word of Mouth	3	0.921–0.940	0.920	0.949	0.861

#### 4.4. Structural model

The structural results are consistent with the theorised sequencing. Perceived Accessibility is shaped chiefly by safety/security, real-time information, routing/wayfinding, and—negatively—e-ticketing and universal payment/reward; service reliability is non-informative. Accessibility then strengthens destination image and, to a lesser extent, perceived value. Both destination image and perceived value lift tourist engagement, while technology readiness does not. Engagement, in turn, drives word-of-mouth and revisit intention; the latter is also bolstered by word-of-mouth.

**Table 3.** Structural model

Path	$\beta$	t	p	Support
DI → PV	0.667	10.450	<0.001	Supported
DI → TE	0.207	3.343	0.001	Supported
PACC → DI	0.794	37.732	<0.001	Supported
PACC → PV	0.183	2.392	0.017	Supported
ETI → PACC	-0.294	4.199	<0.001	Supported (negative effect)
RTIQ → PACC	0.417	4.996	<0.001	Supported
SAFE → PACC	0.504	5.697	<0.001	Supported
SRW → PACC	0.272	3.169	0.002	Supported
UPR → PACC	-0.197	2.611	0.009	Supported (negative effect)
SER → PACC	0.035	0.345	0.730	Not supported
PV → TE	0.706	12.863	<0.001	Supported
TRI → TE	0.012	0.516	0.606	Not supported
TE → WOM	0.313	6.795	<0.001	Supported
TE → RI	0.700	21.576	<0.001	Supported
WOM → RI	0.183	5.044	<0.001	Supported

Table 5 reports the Fornell–Larcker matrix. Most constructs' diagonal entries ( $\sqrt{\text{AVE}}$ ) exceed the corresponding inter-construct correlations, indicating satisfactory discriminant validity. Two exceptions centre on perceived value: its correlation with tourist engagement is high ( $r = 0.878$ ), exceeding both  $\sqrt{\text{AVE}}$  for PV (0.799) and TE (0.753); likewise, the DI–PV correlation ( $r = 0.812$ ) surpasses PV's  $\sqrt{\text{AVE}}$ . Word of mouth and technology readiness sit close to the boundary ( $r = 0.789$  vs  $\sqrt{\text{AVE\_TRI}} = 0.798$ ) but remain tolerable. Overall, the evidence is mixed: while most relations meet the criterion, PV shows conceptual overlap with neighbouring constructs. We therefore advise reviewing item content, trimming the weakest indicators (e.g., PV5; TE5), and corroborating results with HTMT and bootstrapped confidence intervals to secure more apparent construct separation.

**Table 5.** Result of Discriminant Validity

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1	0,844												
2	0,379	0,916											
3	0,794	0,396	0,842										
4	0,812	0,561	0,712	0,799									
5	0,513	0,858	0,475	0,653	0,867								
6	0,680	0,403	0,781	0,725	0,413	0,829							
7	0,471	0,502	0,614	0,524	0,451	0,742	0,899						
8	0,496	0,607	0,484	0,549	0,652	0,495	0,521	0,869					
9	0,468	0,627	0,584	0,587	0,591	0,719	0,850	0,703	0,827				
10	0,378	0,256	0,480	0,373	0,299	0,386	0,376	0,216	0,355	0,798			
11	0,784	0,556	0,720	0,878	0,625	0,757	0,639	0,675	0,642	0,353	0,753		
12	0,483	0,551	0,403	0,525	0,586	0,435	0,519	0,855	0,672	0,195	0,641	0,872	
13	0,224	0,242	0,331	0,266	0,194	0,402	0,498	0,206	0,421	0,789	0,313	0,179	0,928

Note: 1. Destination Image; 2. E-Ticketing & Fare Integration; 3. Perceived Accessibility; 4. Perceived Value; 5. Real Time Information Quality; 6. Revisit Intention; 7. Safety & Security Perception; 8. Seamless Routing & Wayfinding; 9. Service Reliability; 10. Technology Readiness; 11. Tourist Engagement; 12. Universal Payment & Reward; 13. Word of Mouth

As shown in Table 6, the model exhibits strong explanatory power for several endogenous constructs: Destination Image ( $R^2 = 0.630$ ;  $Q^2 = 0.445$ ), Perceived Value ( $R^2 = 0.670$ ;  $Q^2 = 0.418$ ), Tourist Engagement ( $R^2 = 0.785$ ;  $Q^2 = 0.438$ ), and Revisit Intention ( $R^2 = 0.602$ ;  $Q^2 = 0.410$ ). Perceived Accessibility is moderate (0,456; 0,326), whereas Word of Mouth is modest (0,096; 0,082), yet all  $Q^2$  values exceed zero, indicating predictive relevance. Effect sizes converge on a clear hierarchy: Perceived Accessibility  $\rightarrow$  Destination Image is extensive ( $f^2 = 1,706$ ); Tourist Engagement  $\rightarrow$  Revisit Intention is likewise substantial (1,117); Perceived Value  $\rightarrow$  Tourist Engagement is extensive (0,786); and Destination Image  $\rightarrow$  Perceived Value is sizeable (0,500). Smaller but meaningful contributions include Safety  $\rightarrow$  Accessibility (0.125), Real-Time Information  $\rightarrow$  Accessibility (0.076), and Destination Image  $\rightarrow$  Engagement (0.067), while others are negligible.

**Table 6.** Coefficient of Effect Size ( $f^2$ ), Determination ( $R^2$ ) and Predictive Relevance ( $Q^2$ )

Variable	$f^2$													$R^2$	$Q^2$		
	1	2	3	4	5	6	8	9	10	11	12	13					

1			0,706									0,630	0,445	
2														
3		0,039			0,076	0,125	0,030	0,000			0,019	0,456	0,326	
4	0,500		0,037									0,670	0,418	
5														
6										1,117		0,076	0,602	0,410
7														
8														
9														
10														
11	0,067			0,786					0,001			0,785	0,438	
12														
13										0,108		0,096	0,082	

Note: 1. Destination Image; 2. E-Ticketing & Fare Integration; 3. Perceived Accessibility; 4. Perceived Value; 5. Real Time Information Quality; 6. Revisit Intention; 7. Safety & Security Perception; 8. Seamless Routing & Wayfinding; 9. Service Reliability; 10. Technology Readiness; 11. Tourist Engagement; 12. Universal Payment & Reward; 13. Word of Mouth

#### 4.5. Stage 2: Moderation model: specification, estimation, and diagnostics

Table 7 summarises the Stage 1 structural results. Accessibility is shaped chiefly by information and safety qualities: RTIQ→PACC ( $\beta=0.417$ ,  $p<.001$ ) and SAFE→PACC ( $\beta=0.504$ ,  $p<.001$ ), with SRW also positive ( $\beta=0.272$ ,  $p=.002$ ). By contrast, e-ticketing ( $\beta = -0.294$ ,  $p < .001$ ) and universal payment & reward ( $\beta = -0.197$ ,  $p = .009$ ) show significant negative correlations with PACC. At the same time, service reliability is non-significant ( $\beta=0.035$ ,  $p=.730$ ), suggesting possible suppression or perceived complexity among correlated service blocks. Accessibility then strongly improves the destination image ( $\beta = 0.794$ ,  $p < .001$ ) and, more modestly, perceived value ( $\beta = 0.183$ ,  $p = .017$ ). Destination image elevates value ( $\beta=0.667$ ,  $p<.001$ ) and engagement ( $\beta=0.207$ ,  $p=.001$ ). Perceived value robustly drives engagement ( $\beta=0.706$ ,  $p<.001$ ), whereas technology readiness does not ( $\beta=0.012$ ,  $p=.606$ ). Engagement translates into revisit intention ( $\beta=0.700$ ,  $p<.001$ ) and word-of-mouth ( $\beta=0.313$ ,  $p<.001$ ); word-of-mouth further boosts revisit intention ( $\beta=0.183$ ,  $p<.001$ ). Overall, Table 7 supports H3–H6 and the behavioural consequences, while H7–H9 and the moderation/mediation hypotheses are evaluated in Stage 2.

**Table 7.** Structural model (Stage 1)

Path	O	STDEV	T	P	Support
Destination Image → Perceived Value	0.667	0.064	10.450	0.000	Supported
Destination Image → Tourist Engagement	0.207	0.062	3.343	0.001	Supported
E-Ticketing & Fare Integration → Perceived Accessibility	-0.294	0.070	4.199	0.000	Supported
Perceived Accessibility → Destination Image	0.794	0.021	37.732	0.000	Supported
Perceived Accessibility → Perceived Value	0.183	0.076	2.392	0.017	Supported
Perceived Value → Tourist Engagement	0.706	0.055	12.863	0.000	Supported

Real Time Information Quality → Perceived Accessibility	0.417	0.083	4.996	0.000	Supported
Safety & Security Perception → Perceived Accessibility	0.504	0.088	5.697	0.000	Supported
Seamless Routing & Wayfinding → Perceived Accessibility	0.272	0.086	3.169	0.002	Supported
Service Reliability → Perceived Accessibility	0.035	0.101	0.345	0.730	Not supported
Technology Readiness → Tourist Engagement	0.012	0.023	0.516	0.606	Not supported
Tourist Engagement → Revisit Intention	0.700	0.032	21.576	0.000	Supported
Tourist Engagement → Word of Mouth	0.313	0.046	6.795	0.000	Supported
Universal Payment & Reward → Perceived Accessibility	-0.197	0.075	2.611	0.009	Supported
Word of Mouth → Revisit Intention	0.183	0.036	5.044	0.000	Supported

#### 4.6. Stage 2: Hypothesis Testing Results

Figure 2 summarises the updated hypothesis-testing results. The super-app integration quality (SAIQ) exhibits robust, positive correlations with both perceived Accessibility (PACC) and perceived value (PV). Accessibility strongly enhances destination image (DI) and, in turn, DI improves PV; PACC also exerts a more minor but significant direct effect on PV. Value is the principal driver of tourist engagement (TE), and engagement decisively predicts tourist loyalty (LOY). In addition, PV contributes directly to LOY, indicating both direct and engagement-mediated value effects. The Safety and Security Perception (SAFE) exhibits positive, auxiliary paths into PV and TE. The two moderation terms (SAIQ × TRI on PACC and on PV) are included but do not significantly alter the pattern. Overall, the serial chain SAIQ → PACC → DI → PV → TE → LOY receives clear empirical support.

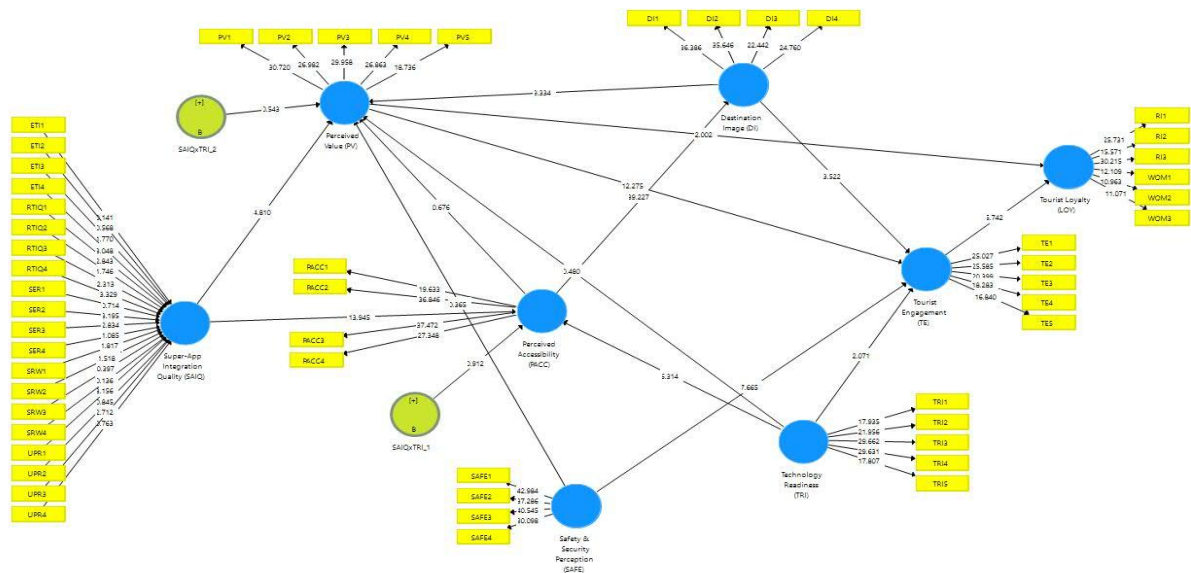


Figure 2. Hypotheses testing results (structural paths)

#### 4.7. Stage 2: Structural results (main and additional direct effects)

The Stage-2 estimates confirm the theorised stimulus–organism–response chain. Integration quality has clear payoffs: SAIQ significantly increases perceived Accessibility

(H2:  $\beta = 0.559$ ,  $t = 13.945$ ,  $p < .001$ ) and perceived value (H1:  $\beta = 0.300$ ,  $t = 4.810$ ,  $p < .001$ ). Accessibility then powerfully improves destination image (H3:  $\beta=0.797$ ,  $t=39.227$ ,  $p<.001$ ), and image strongly lifts value (H5:  $\beta=0.564$ ,  $t=9.334$ ,  $p<.001$ ). Value energises tourist engagement (H6:  $\beta=0.610$ ,  $t=12.275$ ,  $p<.001$ ), which in turn translates into loyalty (H7:  $\beta=0.539$ ,  $t=5.742$ ,  $p<.001$ ). Value also has a smaller, yet significant, direct route to loyalty (H8:  $\beta = 0.204$ ,  $t = 2.002$ ,  $p = .046$ ), indicating partial mediation.

Two paths are not supported. Accessibility does not directly raise value once the image is considered (H4:  $\beta = 0.051$ ,  $p = .499$ ), suggesting its influence is channeled through the destination image. Likewise, safety perception does not alter value evaluations (H9:  $\beta = 0.013$ ,  $p = .715$ ). Even so, safety meaningfully enhances engagement (H10:  $\beta = 0.254$ ,  $t = 7.665$ ,  $p < .001$ ), implying that safety helps visitors participate rather than reprice benefits.

Moderation by technology readiness is absent: the SAIQ $\times$ TRI terms are non-significant for accessibility (H12:  $\beta=-0.028$ ,  $p=.362$ ) and value (H13:  $\beta=0.015$ ,  $p=.587$ ). Overall, the evidence backs a dominant pathway—SAIQ  $\rightarrow$  PACC  $\rightarrow$  DI  $\rightarrow$  PV  $\rightarrow$  TE  $\rightarrow$  LOY—augmented by a direct PV  $\rightarrow$  LOY link and a safety-to-engagement lever.

**Table 8.** Structural model (Stage 2: primary and additional direct effects)

Hypothesis	Path	O	STDEV	T	P	Support
H1	Super-App Integration Quality (SAIQ) -> Perceived Value (PV)	0.300	0.062	4.810	0.000	Supported
H2	Super-App Integration Quality (SAIQ) -> Perceived Accessibility (PACC)	0.559	0.040	13.945	0.000	Supported
H3	Perceived Accessibility (PACC) -> Destination Image (DI)	0.797	0.020	39.227	0.000	Supported
H4	Perceived Accessibility (PACC) -> Perceived Value (PV)	0.051	0.075	0.676	0.499	Not supported
H5	Destination Image (DI) -> Perceived Value (PV)	0.564	0.060	9.334	0.000	Supported
H6	Perceived Value (PV) -> Tourist Engagement (TE)	0.610	0.050	12.275	0.000	Supported
H7	Tourist Engagement (TE) -> Tourist Loyalty (LOY)	0.539	0.094	5.742	0.000	Supported
H8	Perceived Value (PV) -> Tourist Loyalty (LOY)	0.204	0.102	2.002	0.046	Supported
H9	Safety & Security Perception (SAFE) -> Perceived Value (PV)	0.013	0.036	0.365	0.715	Not supported
H10	Safety & Security Perception (SAFE) -> Tourist Engagement (TE)	0.254	0.033	7.665	0.000	Supported
H12	SAIQ $\times$ TRI_1 -> Perceived Accessibility (PACC)	-0.028	0.031	0.912	0.362	Not supported
H13	SAIQ $\times$ TRI_2 -> Perceived Value (PV)	0.015	0.027	0.543	0.587	Not supported

#### 4.8. Stage 2: Moderation results (conditional effects)

Table 9 shows that technology readiness (TRI) does not condition the effects of super-app integration quality (SAIQ) on either perceived Accessibility (PACC) or perceived value (PV). The interaction terms are trivially small and non-significant (PACC:  $\beta_3=-0.028$ ,  $t=0.912$ ,

$p=0.362$ ,  $f^2=0.000$ ; PV:  $\beta_3=0.015$ ,  $t=0.543$ ,  $p=0.587$ ,  $f^2=0.001$ ), with VIF=1.000 indicating no collinearity. Simple-slope estimates reinforce this conclusion: SAIQ's effect on PACC changes only modestly across TRI ( $-1$  SD: 0.587; mean: 0.559;  $+1$  SD: 0.531), and its effect on PV is similarly stable (0.285, 0.300, 0.315). In contrast, the main effects remain robust and positive (SAIQ→PACC  $\beta_1=0.559$ ; SAIQ→PV  $\beta_1=0.300$ ). Taken together, the near-parallel slopes suggest that improvements in integration quality translate into higher Accessibility and value perceptions for both low- and high-readiness visitors, and that segmenting by TRI offers little incremental leverage for these two relationships. Accordingly, the moderation hypotheses (H12–H13) are not supported; investment in core integration features should benefit users broadly, irrespective of their baseline technology readiness.

**Table 9.** Moderation results (conditional effects of TRI)

Outcome (Y)	Main effect SAIQ→ Y ( $\beta_1$ )	Interaction SAIQ×TRI →Y ( $\beta_3$ )	t	p	VIF	$f^2$	Simple slope at TRI $-1$ SD	at TRI 0 (mean)	at TRI $+1$ SD
Perceived Accessibility (PACC)	0.559	-0.028	0.912	0.362	1.000	0.000	0.587	0.559	0.531
Perceived Value (PV)	0.300	0.015	0.543	0.587	1.000	0.001	0.285	0.300	0.315

## 5. Discussion

The structural results provide clear support for the study's S–O–R logic. First, super-app integration quality (SAIQ) exerts strong direct effects on perceived Accessibility (PACC,  $\beta=0.559$ ,  $p<.001$ ) and perceived value (PV,  $\beta=0.300$ ,  $p<.001$ ), indicating that integrated ticketing, routing, payments, and live information reduce coordination costs and enhance utility—consistent with prior platform research (Purohit et al., 2022; So et al., 2020; Yang et al., 2023). Second, Accessibility powerfully shapes the destination image (DI,  $\beta = 0.797$ ,  $p < .001$ ), and DI, in turn, elevates value ( $\beta = 0.564$ ,  $p < .001$ ). Notably, the direct PACC→PV path is non-significant ( $\beta = 0.051$ ,  $p = .499$ ): Accessibility appears to improve value predominantly by reframing how visitors perceive the city—orderly, intelligible, and capable—before revising their cost–benefit judgments. This two-step mechanism aligns with work that links mobility affordances to symbolic appraisals and downstream evaluations (Barlette et al., 2021; Blandin et al., 2024; Hrankai & Mak, 2025).

Downstream, PV robustly predicts tourist engagement (TE,  $\beta=0.610$ ,  $p<.001$ ), and both TE ( $\beta=0.539$ ,  $p<.001$ ) and PV ( $\beta=0.204$ ,  $p=.046$ ) contribute to loyalty (LOY), aligning with evidence that value judgements catalyse deeper cognitive–affective–behavioural engagement which then anchors revisit and advocacy intentions (Cranmer et al., 2020; Liu-Lastres et al., 2020). Safety and security perception (SAFE) does not directly influence value ( $\beta = 0.013$ ,  $p = .715$ ). However, it significantly fosters engagement ( $\beta = 0.254$ ,  $p < .001$ ), suggesting that safety cues primarily unlock approach behaviors—such as searching, trial, and sharing—rather than reweighting costs and benefits. This pattern is compatible with findings that perceived safety reduces uncertainty and frees attentional resources for participation (Lee & Chen, 2020; Ribeiro et al., 2021; Wang & López, 2020).

Contrary to expectations, technology readiness (TRI) does not moderate the SAIQ→PACC or SAIQ→PV links (both interactions). One interpretation is that contemporary super-apps, through familiar design conventions and defaults, now lower the cognitive burden sufficiently that readiness heterogeneity matters less in short-stay contexts. This boundary condition diverges from studies reporting TRI contingencies (Esmailpour et al., 2022; Jang et al., 2021; Jiang et al., 2024; Rather et al., 2023), signaling a maturing user interface ecology in urban mobility.

Taken together, the model delineates a serial route—SAIQ → PACC → DI → PV → TE → LOY—augmented by a safety-to-engagement channel. Theoretical contributions include clarifying DI's mediating role between Accessibility and value, and recasting safety as an engagement enabler rather than a valuation driver. Managerially, priorities are clear: invest in integration quality, make Accessibility legible, curate the city's image, and communicate safety to activate engagement that ultimately converts to loyalty.

## **6. Conclusion, Implication, and Recommendation**

This study demonstrates a coherent S–O–R pathway in platform-mediated urban tourism. Super-app integration quality (SAIQ) enhances perceived Accessibility (PACC) and perceived value (PV). Accessibility then significantly enhances the destination image (DI), which in turn increases value. Downstream, value energises tourist engagement (TE), and both engagement and value contribute to loyalty (LOY). Two boundary findings refine this narrative: the direct PACC→PV path is not significant, indicating that Accessibility primarily works through DI to shape value judgements; and technology readiness (TRI) does not moderate the SAIQ→PACC or SAIQ→PV links, suggesting contemporary design conventions may have flattened readiness barriers. Safety and security perception (SAFE) does not directly raise value, but it reliably fosters engagement.

### **6.1. Implications**

Theoretical results position DI as a pivotal cognitive filter between mobility affordances and value appraisal, recasting safety as a catalyst for engagement rather than a driver of valuation. Managerially, priorities are clear: invest in integration quality as the central stimulus; make Accessibility legible through reliable real-time information, seamless routing, and intuitive wayfinding; and curate the city's image to translate ease of movement into perceived value. Because TRI contingencies are weak, broad-based design improvements are likely to outperform micro-segmentation in terms of readiness.

### **6.2. Recommendations**

City authorities and operators should (i) harden integration across ticketing, payments, and intermodal transfers; (ii) standardise data pipelines to stabilise live information; and (iii) communicate “city legibility” through signage, map parity, and multilingual prompts that reinforce DI. Super-app providers should (iv) prioritise latency and reliability over feature proliferation; (v) surface value transparently (time-saved and cost-saved indicators); and (vi) activate engagement via contextual nudges, micro-rewards, and social sharing—leveraging safety cues (e.g., verified operators, incident transparency, privacy assurances) to encourage participation. Given the minimal TRI moderation, (vii) default onboarding, progressive

disclosure, and error-tolerant flows are preferable to extensive readiness screening, though light-touch tutorials remain prudent.

### 6.3. Limitations and future research

The cross-sectional design, self-reported measures, and single-city focus constrain causal inference and generalisability. Future work should adopt longitudinal or experimental designs, triangulate survey responses with usage logs or geospatial traces, and compare cities at different stages of platform maturity. Extending the model to incorporate risk tolerance, trust, habit formation, or privacy assurance—as moderators or serial mediators—may clarify boundary conditions. Finally, linking engagement to revealed behaviours (actual revisit, spending, modal shifts) would test the durability of loyalty beyond intention.

## 7. References

- Al-Ansi, A., Kim, S., Xu, Y., Che, C., Chua, B., & Han, H. (2024). Wellness Tourism Attributes and Tourist Outcomes: An Analysis of Configurational Effects. *Journal of Travel Research*, 64(5), 1244–1261. <https://doi.org/10.1177/00472875241237262>
- Aleshinloye, K. D., Woosnam, K. M., Tasci, A. D., & Ramkissoon, H. (2021). Antecedents and Outcomes of Resident Empowerment Through Tourism. *Journal of Travel Research*, 61(3), 656–673. <https://doi.org/10.1177/0047287521990437>
- Alipour, H., Olya, H., Maleki, P., & Dalir, S. (2020). Behavioral Responses of 3S Tourism Visitors: Evidence From a Mediterranean Island Destination. *Tourism Management Perspectives*, 33, 100624. <https://doi.org/10.1016/j.tmp.2019.100624>
- Barlette, Y., Jaouen, A., & Bailleterie, P. (2021). Bring Your Own Device (BYOD) as Reversed IT Adoption: Insights Into Managers' Coping Strategies. *International Journal of Information Management*, 56, 102212. <https://doi.org/10.1016/j.ijinfomgt.2020.102212>
- Blandin, L., Vecchio, G., Hurtubia, R., & Tiznado-Aitken, I. (2024). Car Dependency in the Urban Margins: The Influence of Perceived Accessibility on Mode Choice. *Transportation Research Part A Policy and Practice*, 184, 104098. <https://doi.org/10.1016/j.tra.2024.104098>
- Cranmer, E. E., Dieck, M. C., & Fountoulaki, P. (2020). Exploring the Value of Augmented Reality for Tourism. *Tourism Management Perspectives*, 35, 100672. <https://doi.org/10.1016/j.tmp.2020.100672>
- Eletxigerra, A., Barrutia, J. M., & Echebarria, C. (2021). Tourist Expertise and Pre-Travel Value Cocreation: Task-Related Processes and Beyond. *Tourism Management Perspectives*, 37, 100772. <https://doi.org/10.1016/j.tmp.2020.100772>
- Esmailpour, J., Aghabayk, K., Aghajanzadeh, M., & Gruyter, C. D. (2022). Has COVID-19 Changed Our Loyalty Towards Public Transport? Understanding the Moderating Role of the Pandemic in the Relationship Between Service Quality, Customer Satisfaction, and Loyalty. *Transportation Research Part A Policy and Practice*, 162, 80–103. <https://doi.org/10.1016/j.tra.2022.05.023>
- Font, X., English, R., Gkritzali, A., & Tian, W. (2021). Value Cocreation in Sustainable Tourism: A Service-Dominant Logic Approach. *Tourism Management*, 82, 104200. <https://doi.org/10.1016/j.tourman.2020.104200>
- Guidon, S., Wicki, M., Bernauer, T., & Axhausen, K. W. (2020). Transportation Service Bundling – For Whose Benefit? Consumer Valuation of Pure Bundling in the Passenger Transportation Market. *Transportation Research Part A Policy and Practice*, 131, 91–106. <https://doi.org/10.1016/j.tra.2019.09.023>
- Hair, J. F., Sarstedt, M., Ringle, C. M., Sharma, P. N., & Liengard, B. D. (2024). Going

- beyond the untold facts in PLS–SEM and moving forward. *European Journal of Marketing*, 58(13), 81–106. <https://doi.org/10.1108/EJM-08-2023-0645>
- He, Y., Li, X., & Zhong, K. (2023). Small Changes Make a Big Difference: The Impact of Visual Symbol Color Lightness on Destination Image. *Journal of Travel Research*, 63(4), 1013–1028. <https://doi.org/10.1177/00472875231170218>
- Hrankai, R., & Mak, B. (2025). Bridging the Affordance-Actualization Gap in User Preferences for AI-Assisted Trip Planning. *Journal of Travel Research*. <https://doi.org/10.1177/00472875251322518>
- Hult, J. F. H. J. G. T. M., Sarstedt, C. M. R. M., & Ray, N. P. D. S. (2021). Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. In *Springer*. <https://doi.org/10.1080/10705511.2022.2108813>
- Jang, S., Chong, K., & Yoo, C. (2021). The Effect of Mobile Application-Driven Customer Participation on Bakery Purchase Behavior: Evidence From a Field Experiment. *International Journal of Hospitality Management*, 94, 102865. <https://doi.org/10.1016/j.ijhm.2021.102865>
- Jang, S., Farajallah, M., & So, K. K. F. (2020). The Effect of Quality Cues on Travelers' Demand for Peer-to-Peer Ridesharing: A Neglected Area of the Sharing Economy. *Journal of Travel Research*, 60(2), 446–461. <https://doi.org/10.1177/0047287519897998>
- Jiang, H., Meng, F., & Liu, B. (2024). Unlocking Nontransactional Value Cocreation: Insights From Online Travel Communities. *Journal of Travel Research*, 64(5), 1206–1225. <https://doi.org/10.1177/00472875241237256>
- Kim, Y. R., Liu, A., Stienmetz, J. L., & Chen, Y. (2022). Visitor Flow Spillover Effects on Attraction Demand: A Spatial Econometric Model With Multisource Data. *Tourism Management*, 88, 104432. <https://doi.org/10.1016/j.tourman.2021.104432>
- Lee, C.C., & Chen, M.-P. (2020). Do Country Risks Matter for Tourism Development? International Evidence. *Journal of Travel Research*, 60(7), 1445–1468. <https://doi.org/10.1177/0047287520954539>
- Lin, H., Meng, Z., & Gürsoy, D. (2021). Effects of Tourist-to-Tourist Interactions on Experience Cocreation: A Self-Determination Theory Perspective. *Journal of Travel Research*, 61(5), 1105–1120. <https://doi.org/10.1177/00472875211019476>
- Ling, E. C., Tussyadiah, I., Liu, A., & Stienmetz, J. L. (2023). Perceived Intelligence of Artificially Intelligent Assistants for Travel: Scale Development and Validation. *Journal of Travel Research*, 64(2), 299–321. <https://doi.org/10.1177/00472875231217899>
- Liu-Lastres, B., Mariska, D., Tan, X., & Ying, T. (2020). Can Post-Disaster Tourism Development Improve Destination Livelihoods? A Case Study of Aceh, Indonesia. *Journal of Destination Marketing & Management*, 18, 100510. <https://doi.org/10.1016/j.jdmm.2020.100510>
- Lu, Q., & Atadil, H. A. (2021). Do You Dare to Travel to China? An Examination of China's Destination Image Amid the COVID-19. *Tourism Management Perspectives*, 40, 100881. <https://doi.org/10.1016/j.tmp.2021.100881>
- Lumivalo, J., Tuunanen, T., & Salo, M. (2023). Value Co-Destruction: A Conceptual Review and Future Research Agenda. *Journal of Service Research*, 27(2), 159–176. <https://doi.org/10.1177/10946705231177504>
- Oestreich, L., Rhoden, P. S., Vieira, J. d. S., & Ruiz-Padillo, A. (2023). Impacts of the COVID-19 Pandemic on the Profile and Preferences of Urban Mobility in Brazil: Challenges and Opportunities. *Travel Behaviour and Society*, 31, 312–322. <https://doi.org/10.1016/j.tbs.2023.01.002>
- Polydoropoulou, A., Pagoni, I., Tsimpa, A., Roumboutsos, A., Kamargianni, M., & Tsouros, I. (2020). Prototype Business Models for Mobility-as-a-Service. *Transportation Research Part A Policy and Practice*, 131, 149–162. <https://doi.org/10.1016/j.tra.2019.09.035>

- Ponsignon, F., & Derbaix, M. (2020). The Impact of Interactive Technologies on the Social Experience: An Empirical Study in a Cultural Tourism Context. *Tourism Management Perspectives*, 35, 100723. <https://doi.org/10.1016/j.tmp.2020.100723>
- Purohit, S., Arora, R., Nunkoo, R., Goolaup, S., & Das, M. (2022). Airbnb Experiences: Travelers' Purchase Behavior and Word-of-Mouth. *Journal of Travel Research*, 62(7), 1569–1587. <https://doi.org/10.1177/00472875221127679>
- Rather, R. A., Hollebeek, L. D., Loureiro, S. M. C., Khan, I., & Hasan, R. (2023). Exploring Tourists' Virtual Reality-Based Brand Engagement: A Uses-and-Gratifications Perspective. *Journal of Travel Research*, 63(3), 606–624. <https://doi.org/10.1177/00472875231166598>
- Ribeiro, M. A., Gürsoy, D., & Hengxuan, O. (2021). Customer Acceptance of Autonomous Vehicles in Travel and Tourism. *Journal of Travel Research*, 61(3), 620–636. <https://doi.org/10.1177/0047287521993578>
- So, K. K. F., Kim, H., & Oh, H. (2020). What Makes Airbnb Experiences Enjoyable? The Effects of Environmental Stimuli on Perceived Enjoyment and Repurchase Intention. *Journal of Travel Research*, 60(5), 1018–1038. <https://doi.org/10.1177/0047287520921241>
- Stylidis, D. (2020). Exploring Resident–Tourist Interaction and Its Impact on Tourists' Destination Image. *Journal of Travel Research*, 61(1), 186–201. <https://doi.org/10.1177/0047287520969861>
- Sun, P., Lin, Z., & Chun-fa, C. (2023). Unlocking Potential: Macro Insights Into the Evolution of a Multi-Destination Tourism Innovation Network. *Journal of Travel Research*, 64(1), 139–157. <https://doi.org/10.1177/00472875231209981>
- Tan, K. P., & Li, X. (2023). When Tourists Are Angry or Fearful: (In)Effectiveness of Emotion Regulation in Changing Behavioral Intention. *Journal of Travel Research*, 63(4), 796–817. <https://doi.org/10.1177/00472875231173126>
- Vojtko, V., Štumpf, P., Rašovská, I., McGrath, R., & Ryglová, K. (2020). Removing Uncontrollable Factors in Benchmarking Tourism Destination Satisfaction. *Journal of Travel Research*, 61(1), 136–149. <https://doi.org/10.1177/0047287520971047>
- Wang, F., & López, C. (2020). Does Communicating Safety Matter? *Annals of Tourism Research*, 80, 102805. <https://doi.org/10.1016/j.annals.2019.102805>
- Wei, W., Önder, İ., Assaf, A. G., & Uysal, M. (2025). Information Communication Technology as a Driver of Tourism Efficiency. *Journal of Travel Research*. <https://doi.org/10.1177/00472875251361901>
- Xiang, K., Wu, M.-Y., Tong, Y., & He, C. (2024). Imprinting and Workplace Well-Being Among Generation Z Hotel Employees. *Journal of Travel Research*, 64(6), 1393–1413. <https://doi.org/10.1177/00472875241249396>
- Yang, X., Zhang, L., & Feng, Z. (2023). Personalized Tourism Recommendations and the E-Tourism User Experience. *Journal of Travel Research*, 63(5), 1183–1200. <https://doi.org/10.1177/00472875231187332>
- Ye, S., Wei, W., Wen, J., Ying, T., & Tan, X. (2020). Creating Memorable Experience in Rural Tourism: A Comparison Between Domestic and Outbound Tourists. *Journal of Travel Research*, 60(7), 1527–1542. <https://doi.org/10.1177/0047287520951641>
- Zhang, D., Tu, J., Zhou, L., & Yu, Z. (2020). Higher Tourism Specialization, Better Hotel Industry Efficiency? *International Journal of Hospitality Management*, 87, 102509. <https://doi.org/10.1016/j.ijhm.2020.102509>
- Zhu, W., Yan, R., & Song, Y. (2022). Analysing the Impact of Smart City Service Quality on Citizen Engagement in a Public Emergency. *Cities*, 120, 103439. <https://doi.org/10.1016/j.cities.2021.103439>