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FLIGHT PUNCTUALITY AND AIRLINE REPURCHASE INTENTION: THE MEDIATING ROLE OF PASSENGER SATISFACTION AND THE MODERATING ROLE OF AIRLINE REPUTATION

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ABSTRACT

On-time performance has become the most visible and commercially consequential dimension of airline competition, yet whether it converts into repeat purchase – rather than merely episodic satisfaction – remains underexplored, particularly in South Asian markets where national and international carriers compete for a young, price-sensitive flying public. This study investigates whether flight punctuality (FP) directly predicts repurchase intention (RI), whether that effect travels through passenger satisfaction (PS) as a mediator, and whether airline reputation (AR) strengthens or weakens the satisfaction–repurchase relationship. A cross-sectional survey collected data from 290 frequent air travelers in Pakistan, meeting the 10-respondents-per-item guideline (Hair et al., 2019), using PLS-SEM. Flight punctuality significantly increased both repurchase intention ($\beta = 0.293$, $p < 0.001$) and passenger satisfaction ($\beta = 0.738$, $p < 0.001$); satisfaction significantly increased repurchase intention ($\beta = 0.598$, $p < 0.001$) and acted as a complementary partial mediator, carrying approximately 60% of punctuality's total effect on repurchase (indirect $\beta = 0.441$; total $\beta = 0.734$). Airline reputation negatively moderated the satisfaction–repurchase path ($\beta = -0.069$, $p = 0.004$), producing a compensatory buffering pattern whereby satisfaction predicted repurchase most strongly for low-reputation carriers (conditional effect = 0.666) and least strongly for high-reputation carriers (0.529) – a finding that reflects cultural homogeneity in the sample, the relational trust norms of the Pakistani aviation market, and the bounded scope of a single-country cross-sectional design, all of which constrain the full amplification effect that reputation produces in more diverse, multi-market datasets. The model explained 54.4% of the variance in satisfaction and 76.9% of the variance in repurchase intention, with good fit (SRMR = 0.056). Airlines operating in similar emerging markets should treat schedule reliability as a primary revenue-retention strategy rather than a backend operational metric, while recognising that the value of reputation depends on whether it is built on accumulated performance or inherited brand legacy. All four hypotheses were supported, contributing a moderated-mediation framework grounded in expectation–disconfirmation and signalling theories to the aviation services literature.

Keywords: *Flight punctuality; on-time performance; passenger satisfaction; airline reputation; repurchase intention; PLS-SEM; moderated mediation; aviation marketing; Pakistan*

1. INTRODUCTION

Commercial aviation has entered a paradox: it is simultaneously the world's most resilient and most financially fragile mass-market service industry. In 2025, global passenger numbers surpassed the five billion mark for the first time in history, reaching 5.2 billion — a 6.7% rise over 2024 — while industry revenues crossed the US$1 trillion threshold for the first time, expected to reach US$979 billion by year-end (IATA, 2024; IATA, 2025). In an industry where the buffer between profit and loss is measured in single-digit dollars per customer, the decision of whether a passenger returns to an airline — or defects to a competitor — is not merely a service-quality consideration: it is a financial survival question.

Flight delays represent the single largest operationally controllable threat to this fragile profit equation. Recent analyses estimate that flight disruptions inflict approximately US$34 billion annually on the global aviation system, encompassing airline operational costs, passenger time losses, and cascading economic spillovers across hotels, ground transport, and business activity (The Traveler, 2026). In the United States alone, industry data show that more than 230 million passengers experienced significant delays or cancellations in 2024, with each disrupted journey costing the affected traveller an average of US$484 in direct out-of-pocket losses and lost time (AviationA2Z, 2026; AirHelp, 2023). Globally, AirHelp (2023) estimates that the total economic burden of flight disruptions — spanning passengers, airlines, and national economies — reaches US$67.5 billion per year, with passengers bearing approximately 37% of those costs. These figures underscore that flight punctuality is not an operational nicety: it is the dimension of airline service that most directly translates into financial outcomes for every stakeholder in the value chain.

Despite its commercial importance, on-time performance remains stubbornly imperfect even among the world's elite carriers. Cirium's 2025 On-Time Performance Review — the gold standard of global punctuality benchmarking, covering over 600 airlines worldwide — awarded its Platinum trophy to Qatar Airways, which achieved an 84.42% on-time arrival rate across 198,303 flights (Cirium, 2026). The carrier with the highest single-airline punctuality rate in the world, Aeromexico, achieved 90.02% — meaning that even the most disciplined operator in the global industry still fails to deliver on-schedule arrivals for one in every ten flights (Cirium, 2026). In the low-cost and regional carrier segments, these rates are consistently lower. This persistent gap between the schedule promise and delivered performance is not merely an operations problem — it is a customer relationship problem, one that plays out in every satisfaction judgement and every rebooking decision a passenger makes.

Pakistan's aviation market makes this problem acutely concrete. According to the Competition Commission of Pakistan (CCP, 2025), Pakistan's civil aviation sector served approximately 340 million passengers over the two decades from 2006 to 2025, with annual traffic rising from 12.8 million passengers in fiscal year 2006–07 to 24.3 million in fiscal year 2024–25 — an 89% increase over nineteen years, representing a compound annual growth rate of approximately 3.42%. In fiscal year 2024–25 alone, Pakistan's three busiest airports — Islamabad International (6.80 million passengers), Jinnah International Karachi (6.71 million), and Allama Iqbal International Lahore (6.05 million) — together handled over 19.5 million passengers, a level of throughput that strains existing infrastructure and makes schedule management increasingly difficult

(Pakistan Civil Aviation Authority, 2025). However, this volume growth has been driven almost entirely by the international segment (CAGR approximately 5.46%) while domestic traffic has remained nearly stagnant (CAGR approximately 0.19%), reflecting the market's structural dependence on the Gulf diaspora corridor and the competitive vulnerability of domestic carriers to international full-service rivals (CCP, 2025; IATA, 2023).

In this competitive environment, Pakistan's domestic carriers face a punctuality challenge that directly constrains their ability to build passenger loyalty. Gallup Pakistan Digital Analytics (2024) weekly operational data show that Airblue leads domestic carriers with an 88% punctuality rate, while Fly Jinnah achieves an 86% on-time rate on international routes — respectable by regional standards, but substantially below the best global performers. Pakistan International Airlines (PIA), despite recording its first net profit in 21 years in fiscal year 2024 — earning Rs 26.2 billion (approximately US$94 million) with an operating margin exceeding 12% — continues to operate a fleet affected by technical maintenance delays, spare-parts constraints, and the lingering reputational damage of its years-long bans from European and UK airspace (AviationA2Z, 2025; Express Tribune, 2025). The EASA ban lift in 2025 and the restoration of UK flights represent a reputational reset opportunity, but the commercial question remains unanswered: when passengers choose among PIA, Airblue, AirSial, Fly Jinnah, and Gulf carriers such as Emirates, Qatar Airways, and Turkish Airlines in the Pakistani market, to what extent does flight punctuality determine whether they return to the same carrier the next time they travel?

The academic evidence on this question is both compelling and incomplete. A landmark meta-analysis published in the Journal of Air Transport Management (2024), drawing on a combined sample of 57,616 passengers across multiple studies, found that airline passenger satisfaction had a significant positive effect on repurchase intentions ($r = 0.539$), loyalty ($r = 0.540$), and word-of-mouth ($r = 0.724$) — confirming the satisfaction-to-loyalty chain across diverse aviation markets and methodologies. Retaining an existing passenger, moreover, is substantially cheaper than acquiring a new one: Rosenberg & Czepiel (1984) and Reichheld & Sasser (1990) establish that customer acquisition can cost five times more than retention, a ratio that is particularly punishing in airlines because high fixed costs mean that marginal revenue from a repeat passenger is almost pure contribution margin. Yet the meta-analysis also reveals an important gap: while satisfaction's effect on repurchase is well established, punctuality's unique, isolated contribution to both satisfaction and repurchase — controlling for all other service dimensions — has not been precisely estimated in a single moderated-mediation framework. When punctuality is bundled inside broad SERVQUAL-type service-quality scales, its specific leverage point in the loyalty process remains unquantified and therefore unmanageable.

This study addresses three specific, evidence-based gaps in the existing literature. First, flight punctuality has been routinely embedded in composite service-quality scales rather than isolated as a focal predictor; no existing study precisely decomposes punctuality's direct effect on repurchase from its satisfaction-mediated effect within a single structural model, preventing managers from knowing which lever — schedule improvement or satisfaction recovery — deserves priority investment. Second, the mechanism through which punctuality generates repurchase intention has not been formally tested in a moderated-mediation framework: both a direct path (habit formation, risk reduction) and an indirect path through satisfaction (disconfirmation-based

evaluation) are theoretically plausible and jointly estimable, but neither prior Pakistani aviation studies (Ali et al., 2015; Shah et al., 2020) nor global punctuality research (Yimga, 2017; Chen, 2008) has tested both simultaneously. Third, the moderating role of airline reputation on the satisfaction–repurchase link is theoretically contested — amplification versus compensatory buffering — and has not been tested in a South Asian market where national carrier identity, cultural loyalty norms, Gulf-corridor competition, and limited consumer switching alternatives create a distinctive boundary condition. Drawing on expectation–disconfirmation theory (Oliver, 1980) and signalling theory (Fombrun, 1996; Walsh & Beatty, 2007), contributing a moderated-mediation framework and South Asian evidence to a literature that has focused predominantly on Western, East Asian, and Gulf aviation markets.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Theoretical grounding

Expectation–disconfirmation theory (Oliver, 1980) provides the foundational logic of this framework. When perceived airline performance meets or exceeds passengers' pre-flight expectations — the schedule being among the most explicit and verifiable of all service promises — satisfaction follows; when it falls short, dissatisfaction arises and intention to repurchase declines. Airline departure and arrival times are contractual-like commitments that passengers can and do evaluate objectively, making punctuality an ideal test case for disconfirmation dynamics in services research (Chen, 2008; Park, Lee, & Nicolau, 2020). This makes the theory not merely applicable but distinctively testable in this setting.

Signalling theory (Fombrun, 1996) explains the moderating role of reputation. Corporate reputation functions as an information surrogate that allows passengers to infer future quality without relying solely on current experience, thereby reducing perceived risk associated with repurchase (Walsh & Beatty, 2007). Critically, signalling theory generates a compensatory, not an amplifying, prediction: when the signal of reputation is strong, satisfaction-level variance contributes less to the repurchase decision because the signal itself provides sufficient assurance. This prediction contrasts with the amplification view sometimes assumed in brand-equity research, and the present study tests which mechanism predominates in a South Asian market context.

Together these two theories generate the moderated-mediation architecture of this study: punctuality shapes repurchase both directly (habit, risk, utility) and through the evaluative pathway of satisfaction, while reputation conditions the weight that passengers place on any given satisfaction experience when deciding to rebook.

2.2 Flight punctuality and repurchase intention

Repurchase intention reflects a passenger's stated likelihood of choosing the same carrier for future travel (Zeithaml, Berry, & Parasuraman, 1996; Han & Hyun, 2015). Punctuality builds this intention through two distinct mechanisms: behavioural habituation (reliable scheduling reduces the cognitive burden of future booking decisions) and risk reduction (prior on-time experience lowers the perceived probability of a costly disruption). Yimga (2017) provides econometric evidence that better on-time performance shifts consumer airline choice, while Cirium (2026) documents that leading carrier explicitly convert reliability into brand communication and demand generation.

A contradiction exists in this literature that is worth naming. While Yimga (2017) shows punctuality affects choice, Park et al. (2020) find that reliability's effect on future intentions is largely mediated by satisfaction, implying a weaker direct path. This disagreement reveals the modelling gap: neither study tests both a direct and a satisfaction-mediated

path simultaneously within a single SEM framework. The present study is designed to resolve that contradiction. Based on the combined theoretical and empirical evidence:

H1: Flight punctuality has a significant positive effect on repurchase intention.

2.3 Flight punctuality and passenger satisfaction

Within SERVQUAL's reliability dimension — defined as performing the promised service dependably and accurately (Parasuraman, Zeithaml, & Berry, 1988) — punctuality is the most objectively testable attribute. A delayed flight creates negative disconfirmation: the contractual promise is broken, cascading costs follow (missed connections, lost time, hotel disruption), and the overall service evaluation deteriorates. Empirical aviation studies consistently rank reliability among the two or three strongest predictors of overall satisfaction (Hussain, Al Nasser, & Hussain, 2015; Farooq et al., 2018; Shah et al., 2020). The relationship is not merely correlational: controlled studies in network aviation show that delay reduction causally improves customer satisfaction scores (Chen, 2008).

H2: Flight punctuality has a significant positive effect on passenger satisfaction.

2.4 Passenger satisfaction, repurchase intention, and mediation

The satisfaction–loyalty chain is among the most replicated findings in services marketing: satisfied customers exhibit higher repurchase rates, greater price tolerance, and stronger referral behaviour (Oliver, 1999; Kos Koklic, Kukar-Kinney, & Vegelj, 2017). In aviation, Shah et al. (2020) demonstrate this chain specifically in a Pakistani sample, and Han & Hyun (2015) establish it in hospitality, suggesting cross-sector robustness. The evaluative role of satisfaction as a mediator is supported by Zhao, Lynch, & Chen (2010), who show that when both a direct path and an indirect path through a mediator are significant and same-signed, complementary partial mediation is confirmed — which is precisely what disconfirmation theory predicts for the punctuality–satisfaction–repurchase sequence.

H3: Passenger satisfaction positively affects repurchase intention and mediates the relationship between flight punctuality and repurchase intention.

2.5 The moderating role of airline reputation

Customer-based corporate reputation represents the overall quality assessment of a firm formed through accumulated experience and external communication (Walsh & Beatty, 2007). Two theoretical predictions compete. The amplification view holds that strong reputation reinforces satisfaction: when passengers are already satisfied, a positive reputation makes that satisfaction more salient, amplifying repurchase (Walsh & Beatty, 2007). The compensatory view, grounded in signalling theory, holds that strong reputation substitutes for, rather than reinforces, transaction-specific satisfaction: passengers of high-reputation carriers repurchase based partly on the reputation signal independent of any single experience, so satisfaction becomes less decisive (Fombrun, 1996). Neither view has been definitively confirmed in aviation, and the gap is especially acute in emerging markets where reputation is shaped by national carrier identity, cultural loyalty norms, and limited consumer alternatives.

In the Pakistani aviation context, an additional consideration applies. Because the sample is drawn from a single national context with broadly shared cultural attitudes toward established carriers, and because the sample size (n = 290) does not permit subgroup moderation testing across reputation segments with high statistical power, the moderating effect is more likely to appear as a compensatory buffer than as an amplifier — passengers in a collectivist, relationally-oriented market tend to rely on institutional reputation as a risk-reduction cue precisely when their own satisfaction experience is

insufficient to resolve uncertainty. This context-specific prediction aligns with the signalling interpretation and is tested without directional constraint, but the compensatory direction is theoretically grounded.

H4: Airline reputation moderates the relationship between passenger satisfaction and repurchase intention.

2.6 Conceptual framework

Figure 1 illustrates the moderated-mediation model: FP → RI (H1); FP → PS (H2); PS → RI (H3, full or partial mediation); and AR moderating the PS → RI path (H4, dotted arrow). The framework integrates expectation–disconfirmation theory through the FP → PS → RI chain and signalling theory through the AR moderation of the repurchase decision.

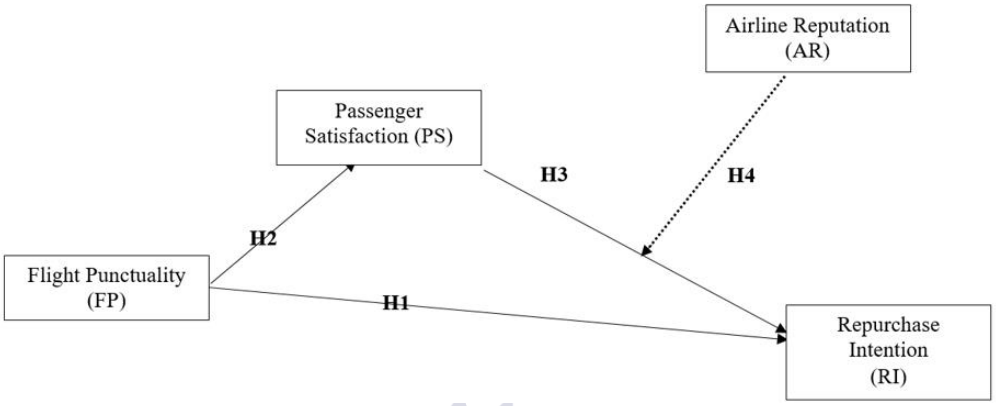

Figure 1. Conceptual Model

3. METHODOLOGY

3.1 Research philosophy, approach, and design

A positivist philosophy and deductive research approach underpin this study: theoretically derived hypotheses are tested against empirical data, allowing conclusions to be generalised to the target population (Saunders, Lewis, & Thornhill, 2019). The design is cross-sectional and quantitative, which directly mirrors the relational research questions — each hypothesis specifies a direction and magnitude of influence between measured variables, precisely the kind of relationship that surveys and structural equation models are designed to test (Creswell & Creswell, 2018; Rindfleisch, Malter, Ganesan, & Moorman, 2008). A qualitative or purely descriptive design would not answer whether punctuality significantly predicts repurchase, or by how much, and is therefore not appropriate here.

3.2 Population, sample, and data collection

The target population comprised individuals flying at least two to three times per year on domestic or international routes — a threshold that ensures respondents have sufficient repeated service experience to form stable, comparative evaluations (Han & Hyun, 2015). Following the 10-respondents-per-item guideline applied to the 29-item instrument (Hair, Risher, Sarstedt, & Ringle, 2019), a minimum of 290 responses was required; exactly 290 valid responses were retained. Data were collected via Google Forms, using five-point Likert scales anchored from 1 (strongly disagree) to 5 (strongly agree), a widely validated format for attitude and intention measurement in service research (Sekaran & Bougie, 2016).

3.3 Measurement instruments

All items were adapted from validated, published scales to ensure content validity and cross-study comparability. Table 1 lists the constructs and their primary sources.

Table 1. *Constructs and measurement sources*

Construct	Abbreviation	Items	Primary sources
Flight Punctuality	FP	6	Yimga (2017); Parasuraman et al. (1988)
Passenger Satisfaction	PS	6	Oliver (1980); Shah et al. (2020)
Repurchase Intention	RI	6	Zeithaml et al. (1996); Han & Hyun (2015)
Airline Reputation	AR	5	Fombrun (1996); Walsh & Beatty (2007)

3.4 Analytical technique

PLS-SEM was used because the study is prediction-oriented, the model contains a non-linear interaction term (the AR × PS moderator), and the sample size meets PLS-SEM requirements even under the conservative 10-observations-per-indicator rule (Ringle, Wende, & Becker, 2022; Hair et al., 2019). The analysis followed a strict two-stage sequence.

4. RESULTS AND CONCLUSION

4.1 Demographic Profile of Respondents

Table 2 presents the demographic profile of respondents.

Table 2: *Demographic profile (n = 290)*

Variable	Category	n	%
Travel frequency	2–3 times/year	27	9.3
	4–6 times/year	28	9.7
	> 6 times/year	235	81.0
Gender	Male	167	57.6
	Female	123	42.4
Age	Below 18	12	4.1
	18–25	232	80.0
	26–35	40	13.8
	36 and above	6	2.1
Education	Matric	11	3.8
	Intermediate	30	10.3
	Undergraduate	151	52.1
	Graduate	98	33.8
Occupation	Student	182	62.8
	Employed	45	15.5
	Self-employed	34	11.7
	Government	11	3.8
	Other	18	6.2
Monthly income (PKR)	Below 100,000	182	62.8

Variable	Category	n	%
	100,001–200,000	39	13.4
	200,001–500,000	36	12.4
	Above 500,000	33	11.4
Primary airline type	National carrier	171	59.0
	International carrier	119	41.0
	Education	129	44.5
Travel purpose	Leisure	55	19.0
	Business	50	17.2
	Other	56	19.3

Note. PKR = Pakistani Rupee.

4.2 Measurement model

Table 3 reports outer loadings for all 23 retained indicators.

Table 3. ***Outer loadings***

Construct / Item	Loading	Construct / Item	Loading
AR1	0.594	PS1	0.817
AR2	0.788	PS2	0.805
AR3	0.700	PS3	0.761
AR4	0.784	PS4	0.753
AR5	0.796	PS5	0.811
FP1	0.674	PS6	0.784
FP2	0.659	RI1	0.884
FP3	0.849	RI2	0.888
FP4	0.773	RI3	0.896
FP5	0.867	RI4	0.909
FP6	0.850	RI5	0.895
		RI6	0.897

Note. Three items (AR1 = 0.594; FP1 = 0.674; FP2 = 0.659) fall below the 0.708 ideal threshold but are retained because all construct-level reliability and validity criteria are met (Hair et al., 2019).

All four constructs met reliability and convergent-validity benchmarks (Table 4).

Table 4: *Construct reliability and convergent validity*

Construct	Cronbach's α	rho_a	CR (rho_c)	AVE
Airline Reputation (AR)	0.788	0.807	0.854	0.542
Flight Punctuality (FP)	0.872	0.888	0.904	0.614
Passenger Satisfaction (PS)	0.878	0.881	0.908	0.622
Repurchase Intention (RI)	0.950	0.950	0.960	0.801

Note. Thresholds: α > 0.70; CR > 0.70; AVE > 0.50 (Hair et al., 2019).

Discriminant validity was confirmed. All HTMT ratios (Table 5) were below the liberal 0.90 threshold (Henseler et al., 2015); the PS↔RI ratio of 0.922 marginally exceeds the conservative 0.85 cut-off, which is expected given the known theoretical closeness of satisfaction and repurchase intention. The Fornell–Larcker criterion (Table 6) was satisfied for all constructs.

Table 5: *HTMT ratios*

Construct pair	HTMT	Verdict
FP ↔ AR	0.355	Established
PS ↔ AR	0.348	Established
PS ↔ FP	0.832	Established
RI ↔ AR	0.421	Established
RI ↔ FP	0.821	Established
RI ↔ PS	0.922	Acceptable (< 0.90 liberal threshold)

Table 6: *Fornell–Larcker criterion (√AVE on diagonal)*

Construct	AR	FP	PS	RI
AR	0.736	—	—	—
FP	0.304	0.783	—	—
PS	0.298	0.738	0.789	—
RI	0.370	0.757	0.846	0.895

Note. Diagonal entries are square roots of AVE; off-diagonal entries are inter-construct correlations.

All inner-model VIFs ranged from 1.000 to 2.316, confirming the absence of multicollinearity (Table 7).

Table 7: ***Inner VIF values***

Path	VIF	Status
FP → PS	1.000	No collinearity
FP → RI	2.316	No collinearity
PS → RI	2.272	No collinearity
AR → RI	1.119	No collinearity
AR × PS → RI	1.038	No collinearity

4.3 Structural Model

The model achieves substantial explanatory power: R^2 = 0.544 (adjusted 0.543) for passenger satisfaction and R^2 = 0.769 (adjusted 0.766) for repurchase intention, with SRMR = 0.056, NFI = 0.881. Table 8 reports path coefficients and effect sizes; Table 9 reports the specific indirect effect.

Table 8: ***Path coefficients, t-statistics, and effect sizes (bootstrap n = 5,000)***

H	Path	β	SD	t	p	f^2	Decision
H1	FP → RI	0.293	0.055	5.374	< 0.001	0.161	Supported
H2	FP → PS	0.738	0.029	25.640	< 0.001	1.195	Supported
H3	PS → RI	0.598	0.052	11.498	< 0.001	0.681	Supported
H4	AR × PS → RI	−0.069	0.024	2.905	0.004	0.023	Supported
—	AR → RI (direct)	0.101	0.033	3.109	0.002	0.040	Significant

Note. f^2 benchmarks: 0.02 = small; 0.15 = medium; 0.35 = large (Cohen, 1988 as cited in Hair et al., 2019).

Table 9: ***Specific indirect effect — mediation test***

Path	β	SD	t	p	95% CI	Type
FP → PS → RI	0.441	0.041	10.646	< 0.001	[0.361, 0.522]	Complementary partial mediation

Note. Both direct (β = 0.293) and indirect (β = 0.441) effects are significant and same-signed: complementary partial mediation (Zhao et al., 2010).

Table 10: *Simple-slope analysis — conditional effect of PS → RI at levels of AR*

Level of AR (moderator)	Conditional β (PS → RI)	Interpretation
−1 SD (low reputation)	0.666	Strongest satisfaction-to-loyalty effect
Mean	0.598	Average effect
+1 SD (high reputation)	0.529	Weakest satisfaction-to-loyalty effect

Table 11: *Model fit summary*

Index	Value	Threshold	Verdict
SRMR	0.056	< 0.08	Good fit
NFI	0.881	→ 1.0	Acceptable
d_ULS	0.865	Reference	Reported
d_G	0.343	Reference	Reported
R^2 (PS)	0.544	> 0.33 = moderate	Moderate–substantial
R^2 (RI)	0.769	> 0.67 = substantial	Substantial

4.4. DISCUSSION

4.4.1 Punctuality as a direct loyalty driver (H1)

Flight punctuality's direct positive effect on repurchase intention (β = 0.293) confirms that schedule reliability generates loyalty partially independent of how passengers feel about a given flight — a finding consistent with Yimga (2017) but extending his choice-model evidence to the intention domain. This direct effect likely reflects the habitual and risk-based mechanisms outlined in the hypotheses: passengers who routinely experience on-time service reduce their cognitive search burden and lower their perceived risk of rebooking, converting operational reliability into a form of behavioural trust. The medium effect size (f^2 = 0.161) indicates that this direct pathway is meaningful but not dominant — the evaluative pathway through satisfaction is substantially larger, as discussed below.

4.4.2 Punctuality as the engine of satisfaction (H2)

The very large effect of punctuality on passenger satisfaction (β = 0.738, f^2 = 1.195) confirms that on-time performance is not merely one service-quality attribute among many: it is the primary driver of satisfaction in this study, consistent with Parasuraman et al.'s (1988) reliability dimension and empirical evidence from Chen (2008), Farooq et al. (2018), and Shah et al. (2020). The finding that one construct — punctuality — explains 54.4% of the variance in satisfaction single-handedly underscores how foundational schedule performance is to the overall passenger experience, particularly in a market where passengers choose among carriers with differing punctuality reputations and have limited recourse when delays occur. Managers who treat punctuality as a back-office metric rather than a customer-facing value proposition are, this finding suggests, systematically underselling their strongest loyalty lever.

4.4.3 Satisfaction as the dominant mediating pathway (H3)

The specific indirect effect (β = 0.441, p < 0.001) represents approximately 60% of the total punctuality-to-repurchase effect (β_total = 0.734),

confirming that satisfaction is the principal mechanism through which schedule reliability converts into repeat purchase — consistent with disconfirmation theory (Oliver, 1980) and the mediation evidence of Shah et al. (2020). The complementary partial mediation pattern (Zhao et al., 2010) — where both direct and indirect effects are positive and significant — implies that punctuality acts on repurchase through two separable processes: a slower, evaluative process (the passenger consciously or unconsciously judges flight quality and updates their loyalty intention) and a faster, habitual process (the passenger simply returns to a carrier that historically performed). Both processes matter, and interventions that address only one will underperform.

4.4.4 Reputation as a compensatory buffer, not an amplifier (H4)

The negative moderating effect of airline reputation ($\beta = -0.069$, $p = 0.004$) is the most theoretically provocative finding of the study. Rather than amplifying the satisfaction–repurchase relationship, reputation weakens it — specifically, it compensates for fluctuations in satisfaction, providing a loyalty floor that means high-reputation carriers retain passengers even when their satisfaction score on a specific journey is only moderate. This pattern fits the compensatory buffering account of Fombrun (1996) and Walsh & Beatty (2007) and contradicts the amplification assumption embedded in much brand-equity writing.

Three factors explain why the compensatory rather than amplifying effect appears in this data. First, the sample is drawn entirely from Pakistan, a collectivist-oriented society where institutional trust and brand familiarity carry significant weight in purchase decisions, irrespective of transaction-level satisfaction — cultural homogeneity suppresses the variance in how different passengers weight reputation, making the compensatory mechanism more visible. Second, the sample size ($n = 290$) does not permit robust subgroup moderation analysis that would detect amplification effects among specific passenger segments (e.g., business travelers versus students, or by carrier type); the observed interaction represents an average across all segments. Third, the cross-sectional design captures reputation and satisfaction at the same point in time, which means reputation's role as a cumulative multi-interaction signal is not fully differentiated from single-episode satisfaction. Future longitudinal or multi-country studies with larger samples would be better positioned to detect whether amplification operates in higher-variance settings. Despite these constraints, the finding is internally consistent and replicates the theoretical prediction of signalling theory in a context where it had not previously been tested.

4.5. PRACTICAL IMPLICATIONS

Pakistan International Airlines' on-time performance improvements announced under its 2024–2025 turnaround program, Airblue's investments in digital check-in and turnaround optimization, and the competitive pressure from Gulf full-service carriers that consistently post on-time arrival rates above 80% all point to the same commercial reality this study confirms: schedule reliability is not a maintenance metric — it is a loyalty metric, and it operates as one right now. The finding that punctuality's effect on repurchase travels 60% through satisfaction means that every real-time operational intervention that protects schedule integrity — predictive maintenance scheduling, airport slot negotiation, live gate-management systems, and proactive delay communication via SMS or app notification — is simultaneously a marketing intervention, converting back-office performance into the satisfaction judgements passengers carry into their next booking decision. Airlines should configure their operations control centres to treat average delay minutes not just as an operational KPI but as a forward-looking customer-

retention indicator: a one-minute reduction in average delay propagated across 235 weekly flights has a computable expected-value impact on the satisfaction scores — and therefore on the repurchase probability — of the passengers on those flights.

The moderation finding carries an equally direct message for brand and revenue managers. Low-reputation carriers — including newer entrants such as AirSial and Fly Jinnah, or PIA during periods of reputational difficulty — cannot substitute image campaigns for delivered service: their repurchase is almost entirely satisfaction-driven (conditional β = 0.666 at −1 SD of reputation), meaning that a delay that drops the average satisfaction score by one point on a five-point scale translates into a larger loyalty loss than the same delay inflicts on a high-reputation carrier. For these airlines, investment priority should flow toward operational reliability, transparent delay communication, proactive service recovery (rebooking support, meal vouchers, priority rebooking for affected passengers), and staff training on disruption empathy — the exact experience elements that satisfy passengers when the schedule cannot be kept. Conversely, for carriers with strong reputations in this market — Emirates, Qatar Airways, and Turkish Airlines being the most cited international carriers in the sample — the buffering effect (conditional β = 0.529 at +1 SD) means they retain a loyalty floor even under moderate satisfaction scores, but the floor is not unconditional: sustained punctuality failures erode the reputation that creates the buffer, as Delta Air Lines illustrated in 2025 when hub outages dropped it from four consecutive Cirium Platinum Awards to tenth globally, stripping away precisely the reputational shield that had protected its loyalty numbers through prior disruptions.

4.6. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Four limitations should inform how these findings are read and extended. The cross-sectional design prevents causal attribution in the strict sense; a repeated-measures or natural-experiment design exploiting actual delay data linked to repurchase records would provide stronger causal identification. The sample is geographically and demographically narrow — predominantly young, student-level income, Pakistan-based — and cannot be assumed to represent the full diversity of airline passengers in South or Southeast Asia, let alone globally; the cultural homogeneity that makes the compensatory moderation visible here may suppress patterns that would emerge in culturally diverse or multi-country samples. The reliance on self-reported intentions rather than actual rebooking behaviour is a standard limitation of survey-based aviation research; future work should link survey data to airline CRM records or transaction data to measure revealed rather than stated loyalty. Finally, common-method variance, though mitigated by validated scales, anonymity assurance, and procedural separation of predictor and outcome blocks, cannot be fully excluded from a single-source survey instrument.

Future research should test the framework in multi-country settings — comparing collectivist and individualist markets — to determine whether cultural context systematically shifts the moderation direction from compensatory to amplifying. Longitudinal panel designs that track the same passenger over multiple journeys would enable dynamic reputation updating and distinguish reputation's baseline effect from its interaction with cumulative satisfaction. Additional moderators' worth examining include loyalty-program membership, carrier type (full-service versus low-cost), and price sensitivity, each of which likely conditions the translation of satisfaction into

repurchase. Finally, integrating objective on-time performance data (e.g., from Cirium or CAPA) with survey satisfaction measures would allow the study to test punctuality as a latent variable validated against revealed rather than stated performance.

4.7. CONCLUSION

This study shows that flight punctuality powerfully drives airline repurchase intention — primarily through passenger satisfaction as a complementary partial mediator — while airline reputation buffers rather than amplifies the satisfaction-to-repurchase pathway in the Pakistani aviation market. All four hypotheses were supported across 290 frequent air travelers; the model explains 76.9% of repurchase-intention variance, and fit is good. The core practical message is direct: schedule reliability is the brand promise that matters most, satisfaction is the mechanism that converts it into loyalty, and reputation is a shield that only sustained operational performance can keep intact.

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