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REFRAMING SMARTPHONE PURCHASE INTENTION IN AYODHYA: AN INTEGRATIVE MODEL OF FUNCTIONAL VALUE, DIGITAL TRUST, 5G READINESS, AND LIFECYCLE SUSTAINABILITY

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Keywords	Abstract
<i>Smartphone Purchase Intention, Perceived Value, Digital Trust, 5G, Lifecycle Sustainability.</i>	This paper updates and extends an earlier descriptive study of mobile-phone buying behaviour in Faizabad (now Ayodhya), India. The earlier study reported that product features, affordability, brand preference, and online purchasing were central to respondents' decisions; however, its student-heavy sample and descriptive design limit generalization. Using that study as a historical anchor, the present paper conducts a focused integrative review of peer-reviewed research and official reports on smartphone purchase intention, mobile commerce, 5G adoption, online reviews, and circular consumption. The synthesis shows that price and product performance remain foundational, but contemporary decisions increasingly depend on digital information credibility, brand and platform trust, future-readiness of the device, and lifecycle value expressed through durability, reparability, resale, and responsible



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	disposal. An extended value-based framework is proposed in which functional value, digital assurance, future readiness, and lifecycle sustainability shape overall perceived customer value and, consequently, purchase intention. Income, age, digital literacy, occupation, and replacement cycle are positioned as moderators. The paper offers testable propositions and a transparent design for a future probability-based survey in Ayodhya. It contributes a post-4G, tier-2-city perspective without presenting uncollected primary data as evidence.
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1. Introduction

Smartphones have moved from being communication devices to becoming gateways for payments, education, work, entertainment, identity, and access to public and private services. This expanded role makes the purchase decision both economically consequential and technologically complex. Consumers no longer compare only handset price and basic specifications; they also evaluate ecosystem compatibility, software support, privacy, online reputation, network readiness, expected service life, and resale possibilities. India's broadband expansion and the launch of 5G services increase the importance of understanding these layered decisions in cities beyond the largest metros (Department of Telecommunications [DoT], 2023).

Rai et al. (2022) provided an early city-level account of mobile-phone purchase behaviour in Faizabad. Their descriptive survey foregrounded better features, reasonable price, brand preference, and e-commerce availability. These findings remain useful as a historical baseline, but the market context has changed substantially. The original emphasis on 4G is now insufficient for a market characterized by 5G, app-based comparison, user-generated reviews, financing and exchange offers, and growing concern about device life and electronic waste. Research on mobile shopping also shows that perceived risk, innovativeness, and price sensitivity interact rather than operate independently (Natarajan et al., 2017).

The purpose of this paper is therefore not to repeat the earlier survey or claim a new empirical result. Instead, it reframes the city-level problem through an integrative model suitable for contemporary Ayodhya. The objectives are to (a) identify what the earlier evidence can and cannot establish; (b) synthesise current determinants of smartphone purchase intention; (c) develop testable propositions; and (d) specify a stronger future empirical design. This approach preserves continuity with the original study while avoiding data fabrication and unsupported generalisation.

2. Literature Review and Research Gap

Historical city-level evidence. The original survey stated a sample of 200 consumers aged 20-55 years, collected through a Google Form using non-probability sampling. It reported



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that 81.9% of respondents were students, Redmi was the leading named brand (34.3%), and better features (74%) were selected more often than reasonable price (37.7%) as a reason for brand choice (Rai et al., 2022). The chart for reasons, however, displayed 204 responses, creating a minor internal inconsistency. The findings should consequently be interpreted as descriptive signals from a young, digitally reached sample rather than population estimates for the whole city.

Table 1. Historical baseline reported in the Ayodhya study

Dimension	Reported evidence	Interpretive caution
Sample	200 consumers; ages 20-55; Google Form; non-probability sampling	Online access and self-selection may bias participation.
Profile	65.2% male; 81.9% students; 88.2% unmarried	The sample does not represent all occupations or life stages.
Brand signal	Redmi 34.3%; Samsung 16.2%; other listed brands lower	The published brand percentages do not sum to 100%.
Choice reasons	Better features 74%; reasonable price 37.7%; appearance 25%; peer satisfaction 24.5%	Multiple responses were allowed; the chart displays 204 responses.

Functional value: performance and price. Perceived value arises from a consumer's evaluation of what is received relative to what is sacrificed (Zeithaml, 1988). In smartphone settings, product features, brand image, and perceived price have repeatedly been associated with intention (Rahim et al., 2016; Rakib et al., 2022). Tanveer et al. (2021) similarly showed that young adults' mobile-phone decisions combine product and shopping-related factors. For tier-2 city consumers, affordability should therefore be modelled together with expected performance, warranty, software support, financing, exchange value, and total ownership cost rather than as the sticker price alone.

Digital assurance: reviews, communication, and trust. Digital channels reduce search costs but increase exposure to conflicting claims, manipulated ratings, and seller risk. Information usefulness, credibility, and adoption help explain how electronic word-of-mouth changes intention (Erkan & Evans, 2016). Smartphone advertising can also affect purchase intention through advertising value and experience (Martins et al., 2019). Thus, platform trust and review credibility should be separated from brand awareness in a contemporary model.



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Future readiness and 5G. Technology-acceptance theory proposes that usefulness and ease of use shape behavioural intention (Davis, 1989), while UTAUT2 adds performance expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit (Venkatesh et al., 2012). In the 5G context, perceived benefits, price value, trust, social factors, and facilitating conditions are especially relevant. Indian evidence based on TAM and UTAUT constructs confirms that 5G adoption is a multi-factor decision rather than a simple desire for speed (Dadhich et al., 2023). Environmental knowledge and health-related attitudes can also enter consumers' 5G judgments (Shah et al., 2021). For handset selection, future readiness includes network compatibility, processing capability, security updates, storage, battery endurance, and capacity to support emerging on-device features.

Lifecycle sustainability. The global e-waste challenge makes replacement frequency and responsible device disposal increasingly important (Forti et al., 2020). Research on refurbished smartphones shows that environmental consciousness, perceived risks, and consumer value influence green purchase intention (Bigliardi et al., 2022). Sustainability is therefore unlikely to operate as a purely moral preference: durability, repairability, warranty, battery replacement, resale value, and verified refurbishment can also produce economic value for price-sensitive buyers.

Research gap. The Faizabad study identified important product and price signals, but it did not integrate digital trust, 5G readiness, perceived risk, software longevity, or circular options. More recent international studies provide relevant constructs, yet their direct transfer to Ayodhya is uncertain because income, retail access, language, digital literacy, and family influence may alter their relative weight. The missing contribution is a locally anchored, theoretically integrated framework that can be tested with a representative city sample.

3. Integrated Conceptual Framework and Propositions

The proposed model integrates perceived-value theory with technology-acceptance and planned-behaviour perspectives (Ajzen, 1991; Davis, 1989; Venkatesh et al., 2012; Zeithaml, 1988). It groups antecedents into three higher-order domains. Functional value captures performance relative to monetary and non-monetary sacrifice. Digital assurance captures confidence created by credible reviews, trustworthy sellers, and brand reliability. Future readiness captures the expected ability of a device to remain useful as networks, software, and use cases evolve. Lifecycle sustainability is treated as a cross-cutting value component because it can reduce ownership cost while satisfying environmental concern.



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Figure 1. Proposed value-based model of smartphone purchase intention

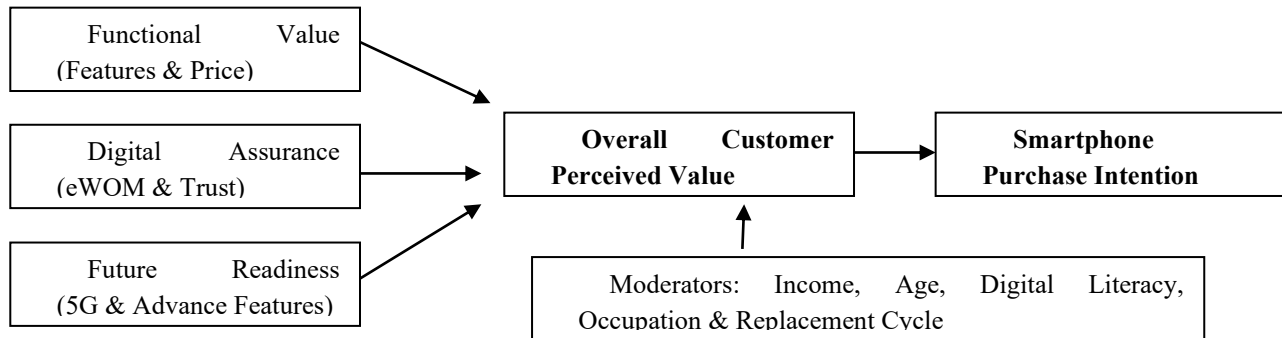


Table 2. Constructs and proposed relationships

Construct	Operational meaning	Proposed relationship
Functional value	Feature performance, battery, camera, storage, software support, warranty, and price fairness	P1: Higher functional value will increase overall perceived customer value.
Digital assurance	Credible reviews, seller/platform trust, brand reliability, privacy, and after-sales confidence	P2: Greater digital assurance will increase perceived value and purchase intention.
Future readiness	5G compatibility, update horizon, security, processing capacity, and emerging-feature support	P3: Future readiness will positively influence perceived value, especially for longer replacement cycles.
Lifecycle sustainability	Durability, repairability, battery replacement, resale, take-back, and verified refurbishment	P4: Lifecycle sustainability will increase perceived value directly and through lower expected ownership cost.
Social influence	Recommendations from family, peers, creators, and visible users	P5: Social influence will affect purchase intention directly and through digital assurance.

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Construct	Operational meaning	Proposed relationship
Overall perceived value	Net evaluation of expected benefits relative to money, risk, effort, and time	P6: Overall perceived value will positively influence smartphone purchase intention.
Consumer context	Income, age, occupation, digital literacy, and replacement cycle	P7: Consumer context will moderate the strength of the proposed relationships.

The framework explains why a feature-rich low-price handset may be preferred by one segment but rejected by another. A short replacement-cycle buyer may discount software longevity, whereas a household expecting four or more years of use may value updates, repair access, battery health, and resale. Similarly, experienced online buyers may rely on review diagnostics, while less digitally confident buyers may place greater weight on family recommendations and local retailers. These differences justify explicit moderation tests rather than a single undifferentiated city average.

4. Methodology

Review design. This study uses a focused integrative review, not a systematic review or meta-analysis. The anchor document was Rai et al. (2022). Fifteen additional academic and institutional sources published no later than December 2023 were purposefully selected to cover smartphone purchase intention, perceived value, mobile shopping, electronic word-of-mouth, technology acceptance, 5G adoption, and sustainable or refurbished smartphones. Searches used combinations of the terms smartphone purchase intention, mobile phone buying behaviour, India, 5G adoption, online reviews, digital trust, refurbished smartphone, and e-waste. Peer-reviewed empirical studies, established theoretical papers, and official reports were prioritised; vendor blogs and unsourced market commentary were excluded.

Synthesis procedure. Evidence was coded into four questions: What benefit is expected? What monetary or risk sacrifice is perceived? What information or relationship reduces uncertainty? What makes the device useful over its expected life? Constructs were then consolidated into functional value, digital assurance, future readiness, lifecycle sustainability, and contextual moderation. The resulting model is explanatory and proposition-generating; it does not estimate effect sizes.

Recommended empirical test. A future Ayodhya study should use a stratified design across age, gender, occupation, income, and urban ward, with mixed online and interviewer-assisted collection to reduce digital exclusion. A target of at least 400 usable cases would support



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measurement validation and structural equation modelling, subject to an a priori power analysis. Multi-item scales should be adapted from established sources, translated and back-translated where Hindi administration is used, and pilot-tested. Reliability should be evaluated with omega or composite reliability; convergent and discriminant validity should be established before testing paths. Common-method bias, non-response, missing data, and online/offline mode effects should be reported. Brand chosen, purchase channel, budget band, planned replacement period, and new-versus-refurbished preference should be recorded as behaviourally meaningful outcomes.

Ethical and reporting safeguards. Participation should be voluntary, consent recorded, personally identifying information minimised, and data stored securely. The final report should distinguish preregistered hypotheses from exploratory findings, publish the questionnaire and coding rules where feasible, and reconcile all sample counts before analysis. These safeguards directly address limitations visible in the historical study.

5. Synthesis and Discussion

The synthesis indicates continuity and change. Continuity lies in the importance of product features, price, brand, and social influence, which appear in both the historical Faizabad evidence and broader smartphone research (Rahim et al., 2016; Rai et al., 2022; Rakib et al., 2022). Change lies in how those factors are now evaluated. Features are judged not only at purchase but over an expected software and hardware life; price is assessed alongside financing, exchange, warranty, repair, and resale; and brand image is filtered through reviews, platform credibility, privacy, and after-sales experience. Smartphone selection should therefore be treated as an informed, multi-criteria decision in the digital era.

For marketers, the model suggests that a specification-led message is necessary but insufficient. Retail and brand communication should translate specifications into use-case value, disclose the update commitment, clarify warranty and repair coverage, and make exchange or take-back terms comparable. Review quality matters more than review volume alone; platforms should verify purchases, identify sponsored content, and respond visibly to recurring complaints. Local retailers retain a role where consumers require demonstration, Hindi explanation, data transfer, financing help, or assurance about service access.

For consumers and policymakers, lifecycle information can align affordability with sustainability. A durable, repairable device with long software support may have a higher initial price but a lower annualised cost. Standardised disclosure of update years, battery replacement options, spare-parts availability, warranty, and trade-in value would make this comparison easier. The approach is relevant because documented e-waste recycling has not kept pace with global e-waste generation (Forti et al., 2020).



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The framework also clarifies why a city-wide average may conceal strategically important segments. Students may prioritise camera, gaming performance, peer visibility, and instalments; salaried users may give more weight to security, reliability, and productivity; older users may prioritise ease of use, local support, and trust; and price-constrained households may value refurbished or exchange-supported options if warranty and quality risk are credibly managed. Segment-level analysis is therefore essential.

6. Conclusion

Smartphone purchase behaviour in Ayodhya can no longer be explained adequately by brand, price, and handset features in isolation. These factors remain central, but consumers increasingly interpret them through digital trust, 5G and software readiness, expected device life, repair and resale options, and the credibility of online information. By converting the 2022 Faizabad study into a historical anchor rather than treating it as current population evidence, this paper develops a more defensible basis for future research. The proposed model links functional value, digital assurance, future readiness, and lifecycle sustainability to overall perceived value and purchase intention, while recognising demographic and digital-literacy differences. Its principal value is a transparent, testable agenda for a representative post-4G study of an emerging Indian city.

AUTHOR(S) CONTRIBUTION

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CONFLICTS OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Nimish Mishra & Praveen Kumar Rai (2025). ***Reframing Smartphone Purchase Intention in Ayodhya: An Integrative Model of Functional Value, Digital Trust, 5G Readiness, and Lifecycle Sustainability.*** International Journal of Multidisciplinary Research & Reviews. 4(3). 303-312.

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