



Effectiveness Of Omnichannel Strategies In Enhancing Customer Perception

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Abstract- Purpose. This study investigates the effectiveness of omnichannel strategies in shaping customer perception within India's rapidly evolving digital retail landscape. While omnichannel commerce has attracted global scholarly interest, evidence from emerging market contexts—characterized by heterogeneous digital literacy, infrastructure constraints, and transitional consumer behavior—remains sparse. **Design/Methodology.** A quantitative, cross-sectional survey design was employed. Data were collected from 100 respondents using a structured 40-item Likert-scale questionnaire. Cronbach's Alpha, exploratory factor analysis, Pearson correlation, and one-way ANOVA were applied to test four hypotheses linking channel integration, personalization, communication consistency, and technology usage to customer perception outcomes. **Findings.** All four alternative hypotheses are supported. Channel integration ($r = 0.65$), personalization ($r = 0.70$), and technology accessibility ($r = 0.60$) exhibit significant positive correlations with customer perception. ANOVA reveals statistically significant differences across age cohorts ($F < 0.05$), with younger digital-native consumers responding more positively to omnichannel touchpoints. Reliability was confirmed with an overall Cronbach's Alpha of 0.80. **Originality.** This paper contributes a context-specific empirical model for emerging markets, integrating Service-Dominant Logic, Customer Engagement Theory, and the Unified Theory of Acceptance and Use of Technology (UTAUT2) within a single explanatory framework. It advances actionable guidance for practitioners navigating digital-physical retail convergence.

Keywords: omnichannel retailing · customer perception · channel integration · personalization · UTAUT2 · emerging markets · India · digital commerce.

I. INTRODUCTION

The topology of retail commerce has undergone a structural transformation. Where firms once competed within discrete channel silos—physical stores, e-commerce platforms, or contact centers—the contemporary consumer navigates a contiguous ecosystem of touchpoints, seamlessly oscillating between digital discovery and in-store fulfillment. This phenomenon, captured by the construct of omnichannel retailing, demands a fundamental reconsideration of how organizations design, deliver, and measure customer experiences.

Omnichannel strategy, as distinguished from its multichannel antecedent, is not merely the simultaneous operation of multiple channels. It is the architectural integration of those channels such that the customer perceives a single, coherent brand entity irrespective of the interaction medium (Verhoef et al., 2015). A consumer may research a product on a mobile application during a commute, consult peer reviews on social media, and complete the transaction in a physical store—each transition frictionless and informationally consistent. When this continuity breaks down, the consequences are asymmetric: dissatisfaction propagates faster and more durably than satisfaction (Bell et al., 2014).

India constitutes a particularly compelling research setting. Its digital economy is among the world's fastest-growing, propelled by unprecedented smartphone penetration, low-cost data infrastructure, and government-led digitalization initiatives. Yet it is simultaneously marked by significant internal heterogeneity: digital literacy gaps, infrastructure variability across urban–semi-urban divides, and a consumer culture that retains strong preferences for tactile, in-store validation of purchase decisions. This duality creates an empirical laboratory unavailable in mature Western markets—where omnichannel behaviors are already well-institutionalized—and generates findings of both theoretical and practical salience for the Global South.

Against this backdrop, the present study pursues five inter-related objectives: (1) to examine the conceptual and operational boundaries of omnichannel strategy in an emerging market context; (2) to empirically assess the relationship between omnichannel strategy dimensions and customer perception; (3) to identify the factor structure



underlying omnichannel effectiveness; (4) to test whether customer perception varies across demographic and behavioral segments; and (5) to derive managerial and policy prescriptions grounded in the empirical evidence.

The paper proceeds as follows. Section 2 develops the theoretical framework and reviews salient empirical antecedents. Section 3 presents the hypotheses and conceptual model. Section 4 details the research methodology. Section 5 reports and interprets the findings. Section 6 discusses theoretical contributions and practical implications, and Section 7 concludes with limitations and future research directions.

II. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Definitional Landscape of Omnichannel Retail

The term "omnichannel" entered managerial discourse around 2010, initially deployed by consultants to signal the next evolutionary stage beyond multichannel strategies (Rigby, 2011). Academic conceptualization has since converged on the notion of channel integration as the core differentiating attribute. Verhoef et al. (2015, p. 176) define omnichannel management as "the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized." This definition foregrounds two dimensions—integration (structural) and experience (perceptual)—that jointly determine omnichannel effectiveness.

Distinguishing omnichannel from multichannel is more than semantic. In a multichannel paradigm, channels are discrete profit centers with independent inventory, pricing, and service teams; inconsistencies are structural features, not failures. In the omnichannel paradigm, inconsistency is a defect, because the implicit contract with the consumer is continuity. Empirical evidence confirms that this distinction has behavioral consequences: customers who perceive channel integration as high report significantly greater satisfaction, trust, and lifetime value (Herhausen et al., 2015; Cao & Li, 2015).

2.2 Theoretical Anchors

Three theoretical lenses inform this study's framework. Service-Dominant Logic (S-D Logic; Vargo & Lusch, 2004) reconceptualizes value as co-created through the actor's use of resources rather than embedded in products. In the omnichannel context, value is not delivered through a channel but co-created at touchpoints where firm

resources (platforms, inventory, service agents) and customer resources (time, attention, data) meet. Channel integration, under S-D logic, is a resource-deployment decision that either enables or impedes value co-creation. Customer Engagement Theory (Brodie et al., 2011) defines engagement as a psychological state of interactive, co-creative experiences with focal agents. Engagement transcends satisfaction—it encompasses cognitive absorption, emotional connection, and behavioral activation. Omnichannel strategies, by reducing friction across touchpoints, are hypothesized to elevate engagement by creating conditions for repeated, affirmative interactions. Crucially, engagement mediates the relationship between channel experience quality and long-run behavioral outcomes such as loyalty and advocacy.

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2; Venkatesh et al., 2012) extends technology acceptance frameworks by incorporating hedonic motivation, habit, and price value alongside traditional constructs such as performance expectancy and social influence. It is directly applicable to omnichannel research because customer willingness to engage with digital touchpoints—apps, e-commerce platforms, digital kiosks—is a function of these determinants. Demographic moderators (age, gender, experience) play particularly important roles in UTAUT2, aligning with the ANOVA component of the present study.

2.3 Empirical Review

Extant research has established several robust associations. Herhausen et al. (2015) demonstrated through a field experiment in Germany that web store integration with physical stores reduces consumer uncertainty and increases both online and offline sales. Neslin et al. (2014) identified information consistency and service continuity across channels as primary drivers of multichannel customer satisfaction, a finding the present study extends to the omnichannel configuration. Cao and Li (2015) showed that cross-channel integration generates positive spillover on firm growth and profitability, operating through the mediating mechanism of customer acquisition and retention.

On the consumer psychology side, Brynjolfsson et al. (2013) documented the "showrooming" phenomenon—in-store inspection followed by online purchase—and its mirror, "webrooming"—online research followed by in-store purchase. Both behaviors underscore that consumers no longer treat channels as substitutes but as complements, a finding that makes the quality of inter-channel transitions



a central competitive variable. Klaus (2013) identified five dimensions of customer experience quality, of which "seamless integration" carries the highest weight in predicting recommendation behavior.

In the Indian context, Gupta et al. (2020) found that Indian mobile commerce adoption is highly sensitive to performance expectancy and social influence, consistent with UTAUT2, but also strongly moderated by price value—reflecting the cost-consciousness of Indian consumers. Bhatia and Bhargava (2021) documented that urban Indian millennials exhibit high omnichannel readiness but cite data privacy concerns as the primary inhibitor of platform trust—a finding echoed in the present study's qualitative dimension.

2.4 Research Gaps Addressed

Despite this growing literature, three gaps motivate the present study. First, most empirical work is situated in North American, European, or East Asian contexts; the Indian emerging market—with its structural peculiarities—has received insufficient dedicated attention. Second, existing studies rarely integrate behavioral analytics (ANOVA segment differences) with scale validation (factor analysis) within a single, internally consistent methodology. Third, the mediating role of customer experience between omnichannel strategy dimensions and downstream perception outcomes has been theorized but not empirically tested in this context.

III. CONCEPTUAL MODEL AND HYPOTHESES

The conceptual model positions omnichannel strategy as a second-order construct composed of four first-order dimensions: Channel Integration and Consistency (CIC), Personalization Quality (PQ), Communication Coherence (CC), and Technology Accessibility and Usability (TAU). These four dimensions are theorized to influence Customer Perception (CP)—the dependent construct—both directly and through the mediating mechanism of Customer Experience Quality (CEQ). Two demographic moderators—age and digital literacy—are incorporated in line with UTAUT2.

Conceptual Model (Textual Representation)
Omnichannel Strategy [CIC + PQ + CC + TAU] → Customer Experience Quality (Mediator) → Customer Perception [Satisfaction | Loyalty | Trust | Advocacy] | Moderators: Age × Digital Literacy (ANOVA). H1: CIC → CP(+); H2: PQ → CP(+); H3: CC → CP(+); H4: TAU → CP(+).

Four formal hypotheses are advanced:

- H1: Channel Integration and Consistency has a significant positive effect on Customer Perception.
- H2: Personalization Quality has a significant positive effect on Customer Perception.
- H3: Communication Coherence across channels has a significant positive effect on Customer Perception.
- H4: Technology Accessibility and Usability has a significant positive effect on Customer Perception.

IV. METHODOLOGY

4.1 Research Design

A quantitative, cross-sectional survey design was adopted. This design is appropriate because the research objectives require precise measurement of latent psychological constructs (perception, satisfaction, trust) and relational testing across variables—objectives that are served by structured self-report instruments and multivariate statistical analysis (Hair et al., 2019). The positivist epistemological stance, combined with a deductive logical approach (theory → hypotheses → empirical test), is standard in consumer behavior research (Saunders et al., 2019).

4.2 Sample and Data Collection

The target population comprised consumers aged 18 and above who had interacted with at least one brand through two or more channels (online and offline) within the preceding three months. A convenience sample of 100 respondents was recruited in a North Indian urban context. While convenience sampling introduces potential self-selection bias—acknowledged as a limitation—it is a widely used and acceptable approach for exploratory and explanatory studies at this scale in the management sciences (Mishra et al., 2019). Respondents were recruited through academic and professional networks, with participation entirely voluntary and data kept anonymous and confidential.



Table 1. Respondent Demographic Profile (N = 100)

Characteristic	Category	n	%
Age	18–25	38	38%
	26–35	32	32%
	36–45	18	18%
	46+	12	12%
Gender	Female	55	55%
	Male	45	45%
Occupation	Student / Graduate	42	42%
	Working Professional	36	36%
	Entrepreneur / Business	14	14%
	Other	8	8%
Primary Device	Smartphone	71	71%
	Laptop / Desktop	21	21%
	Tablet	8	8%
Channel Mix	Online + Offline (Regular)	64	64%
	Primarily Online	26	26%
	Primarily Offline	10	10%

4.3 Measurement Instrument

The 40-item questionnaire was structured in seven sections: demographic information (Section A); channel usage patterns (Section B); customer experience quality (Section C); personalization and technology perceptions (Section D); customer perception outcomes (Section E); Likert-scale attitude statements (Section F, 1 = Strongly Disagree to 5 = Strongly Agree); and open-ended feedback (Section G). Items for the four strategic dimensions were adapted from validated scales in omnichannel retailing research (Verhoef et al., 2015; Herhausen et al., 2015). Customer perception items drew on the customer engagement scale of Brodie et al. (2011). A panel of three academic reviewers assessed content validity; minor wording adjustments were made. A pilot run with 15 participants confirmed item clarity and questionnaire flow.

4.4 Analytical Strategy

Four analytical procedures were applied sequentially. First, Cronbach's Alpha assessed internal consistency reliability for each construct. Second, Principal Axis Factoring with Promax rotation was employed to examine the factor structure of omnichannel strategy dimensions. Third,

Pearson bivariate correlations estimated the direction and magnitude of relationships between the omnichannel dimensions and Customer Perception. Fourth, one-way ANOVA tested whether mean Customer Perception scores differed significantly across age cohorts. Statistical analyses were conducted in SPSS v.28.

V. RESULTS

5.1 Reliability Analysis

Table 2 presents the reliability statistics. All construct-level Cronbach's Alpha values meet or exceed the conventional threshold of 0.70, confirming adequate internal consistency (Nunnally, 1978). The overall scale reliability of 0.80 indicates that the 40-item instrument coheres as a measurement tool and that item heterogeneity does not undermine scale integrity.

Table 2. Cronbach's Alpha Reliability Statistics by Construct

Construct	No. of Items	Cronbach's Alpha	Assessment
Channel Integration & Consistency (CIC)	10	0.81	Good
Personalization Quality (PQ)	8	0.78	Acceptable
Communication Coherence (CC)	8	0.76	Acceptable
Technology Accessibility & Usability (TAU)	8	0.79	Acceptable
Customer Perception (CP)	6	0.82	Good
Overall Scale	40	0.80	Good

5.2 Factor Analysis

Exploratory factor analysis yielded a clean four-factor solution explaining 67.4% of total variance. The KMO measure of sampling adequacy was 0.78 and Bartlett's test of sphericity was significant ($p < .001$), confirming factor analytic appropriateness. Table 3 presents the factor loading matrix. Factor 1 (Channel Integration and Consistency) accounted for 21.3% of variance; Factor 2 (Customer Experience Quality) 18.7%; Factor 3 (Personalization and Communication) 15.2%; and Factor 4 (Technology and Convenience) 12.2%. All items loaded on



their hypothesized factors with loadings ≥ 0.50 and cross-loadings < 0.35 , supporting discriminant validity.

Table 3. Factor Structure of Omnichannel Strategy Dimensions (n = 100)

Factor	Label	Variance Explained	Key Items (Loading ≥ 0.50)
F1	Channel Integration & Consistency	21.3%	Seamless switching; consistent pricing; unified info
F2	Customer Experience Quality	18.7%	Ease of interaction; response speed; satisfaction
F3	Personalization & Communication	15.2%	Tailored offers; targeted comms; brand voice coherence
F4	Technology & Convenience	12.2%	App usability; digital trust; time-saving; accessibility
	Total Variance Explained	67.4%	KMO = 0.78; Bartlett $p < .001$

5.3 Correlation Analysis

Table 4 presents the Pearson correlation matrix for omnichannel strategy dimensions and Customer Perception. All four dimensions are positively and significantly correlated with CP ($p < .01$). Personalization Quality yields the strongest correlation ($r = 0.70$), followed by Channel Integration and Consistency ($r = 0.65$), Technology Accessibility and Usability ($r = 0.60$), and Communication Coherence ($r = 0.58$). These effect sizes are moderate-to-large by Cohen's (1988) conventions, indicating practically meaningful relationships. Inter-dimension correlations are positive but moderate (range: 0.41–0.55), suggesting related yet conceptually distinct constructs—a desirable pattern supporting the four-factor model.

Table 4. Pearson Correlation Matrix: Omnichannel Dimensions and Customer Perception

Variable	CIC	PQ	CC	TAU	CP (r)
Channel Integration (CIC)	—				0.65*
Personalization Quality (PQ)	0.55*	—			0.70*
Communication Coherence (CC)	0.49*	0.51*	—		0.58*
Technology Usability (TAU)	0.41*	0.47*	0.44*	—	0.60*
Customer Perception (CP)	0.65*	0.70*	0.58*	0.60*	—

** $p < 0.01$ (two-tailed). CIC = Channel Integration & Consistency; PQ = Personalization Quality; CC = Communication Coherence; TAU = Technology Accessibility & Usability; CP = Customer Perception.

5.4 ANOVA: Segment Differences in Customer Perception

One-way ANOVA tested whether Customer Perception means differed significantly across four age cohorts. Results revealed a statistically significant between-group difference [$F(3, 96) = 4.87, p = 0.003, \eta^2 = 0.13$]. Table 5 presents group means and significance. Post-hoc Tukey HSD analysis confirmed that the 18–25 age group recorded significantly higher CP means than the 36–45 and 46+ groups ($p < 0.05$), while the 26–35 group occupied an intermediate position not significantly different from adjacent cohorts. This finding is consistent with UTAUT2's prediction that age moderates technology acceptance and, by extension, receptivity to digitally-enabled omnichannel experiences.



Table 5. One-Way ANOVA: Customer Perception by Age Cohort

Age Cohort	n	Mean CP Score	Std. Dev.	Sig. (Post-hoc)
18–25	38	4.21	0.47	Highest (sig. > 36+, 46+)
26–35	32	3.98	0.52	Intermediate
36–45	18	3.64	0.61	Lower
46+	12	3.41	0.68	Lowest
F(3,96) = 4.87, p = .003, η² = .13				

5.5 Hypothesis Testing Summary

Table 6. Hypothesis Testing Results

Hypothesis	Relationship Tested	r / F	p-value	Decision
H1	Channel Integration → Customer Perception	r = 0.65	< .01	Supported ✓
H2	Personalization Quality → Customer Perception	r = 0.70	< .01	Supported ✓
H3	Communication Coherence → Customer Perception	r = 0.58	< .01	Supported ✓
H4	Technology Usability → Customer Perception	r = 0.60	< .01	Supported ✓

VI. DISCUSSION

6.1 The Primacy of Personalization in the Indian Omnichannel Context

The finding that Personalization Quality yields the strongest correlation with Customer Perception (r = 0.70) warrants careful theoretical interpretation. In S-D Logic terms, personalization represents the most sophisticated form of resource-in-use: the firm deploys customer-generated data as an operant resource to co-create individualized value propositions. In the Indian setting, where price sensitivity is high and brand switching costs

are low, personalization functions not merely as a convenience feature but as a signal of relational investment—the firm's commitment to treating the customer as an individual rather than a market segment. This is consistent with Gupta et al.'s (2020) finding that Indian consumers place high value on brands that demonstrate transactional memory and anticipatory service.

However, personalization's effectiveness is contingent on trust. Survey items related to data privacy concerns received systematically lower ratings among older cohorts, indicating that the personalization payoff is age-moderated. Organizations must therefore adopt a transparency-first data governance posture—explicit consent mechanisms, clear data use communications, and accessible opt-out pathways—if they are to realize personalization's full potential across age segments.

6.2 Channel Integration as the Structural Foundation

Channel Integration and Consistency (r = 0.65) emerges as the second-strongest predictor of Customer Perception—and arguably the most operationally consequential finding for managers. Integration failures are directly observable by customers: a price quoted online that differs at the point of sale, an order status invisible to in-store staff, or a loyalty point balance that resets between channels. Each failure constitutes what Bitner (1990) terms a "service encounter failure"—a disproportionately memorable negative event.

The factor analytic results reinforce this interpretation: CIC items cluster tightly (α = 0.81), suggesting that consumers perceive integration as a holistic attribute—either "this brand has it together" or "this brand doesn't." This binary perception implies a threshold effect: organizations must achieve a minimum level of integration before customers register its benefits. Incremental improvements below that threshold may be invisible; improvements beyond it generate compounding satisfaction returns.

6.3 Age Segmentation and Strategic Implications

The ANOVA finding—that CP means are significantly highest among 18–25 year olds (M = 4.21) and lowest among 46+ consumers (M = 3.41)—carries direct strategic significance. Younger consumers are digital-native, habituated to platform-mediated service, and experience lower cognitive load when navigating omnichannel touchpoints. They are also more forgiving of imperfect integration when the overall brand experience is positive—a resilience that older consumers, who carry stronger



expectations formed in single-channel environments, do not share.

This does not imply that firms should focus exclusively on young consumers. On the contrary, the lower CP scores among older cohorts represent an underexploited opportunity. Simplified onboarding journeys, in-store digital assistance, and human-backed digital transitions (e.g., a trained associate who completes an online order on behalf of an in-store customer) can close the perception gap and extend omnichannel benefits to segments currently underserved by digital-first strategies.

6.4 Technology Accessibility as a Necessary but Insufficient Condition

Technology Accessibility and Usability ($r = 0.60$) is positively and significantly related to CP, but its effect size is the smallest among the four dimensions. This finding aligns with UTAUT2's positioning of performance expectancy (utility) above effort expectancy (ease of use) as a predictor of behavioral intention in most contexts. Customers do not reward technology for its own sake; they reward the outcomes it enables. A mobile app with sophisticated features that nonetheless fails to surface the right information at the right moment contributes less to CP than a simpler interface that delivers seamless task completion.

Organizations should therefore resist the temptation to equate technology investment with omnichannel maturity. The relevant question is not "how advanced is our technology?" but "how effectively does our technology eliminate friction at each decision point in the customer journey?"

VII. CONCLUSIONS, IMPLICATIONS, AND FUTURE RESEARCH

7.1 Theoretical Contributions

This study makes three primary theoretical contributions. First, it validates a four-factor model of omnichannel strategy in an emerging-market setting, extending prior Western-market models and establishing construct reliability and discriminant validity in a new context. Second, it integrates S-D Logic, Customer Engagement Theory, and UTAUT2 within a unified framework, demonstrating their complementarity in explaining omnichannel-perception linkages. Third, it provides empirical evidence for age-moderated heterogeneity in omnichannel receptivity—a moderating relationship theorized but rarely tested in the omnichannel literature.

7.2 Managerial Implications

For retail managers, the findings generate a prioritization framework. Personalization Quality should command the highest strategic investment, given its superior correlation with perception; but it must be supported by data governance infrastructure that earns consumer trust. Channel Integration is the structural prerequisite: without it, personalization investments are undermined by inconsistencies that erode credibility. Communication Coherence—the tonal and informational consistency of brand messages across channels—is often treated as a brand management function rather than an IT challenge; this study confirms it belongs in the omnichannel design specification.

For technology leaders, the key message is that platform investment must be validated against friction-reduction outcomes, not feature breadth. Customer journey mapping should identify integration failure points that generate disproportionate dissatisfaction, and technological solutions should be evaluated by the friction they eliminate rather than the capabilities they add.

For policymakers, the findings underscore the need for consumer data protection legislation that is both robust and business-enabling—frameworks that allow personalization to flourish while maintaining the privacy safeguards that older and more privacy-sensitive consumers require as a precondition for digital platform trust.

7.3 Limitations

Several limitations qualify the findings. The convenience sample of 100 respondents, drawn from a single North Indian urban context, constrains generalizability. The cross-sectional design captures attitudinal snapshots rather than behavioral dynamics. Reliance on self-report data introduces common method variance; future studies should triangulate with behavioral analytics (app usage logs, transaction data). The mediation mechanism theorized (Customer Experience Quality as mediator) was not formally tested in this study—a priority for subsequent work employing SEM.

7.4 Directions for Future Research

Three research directions present themselves as priorities. First, longitudinal panel designs tracking the evolution of omnichannel perceptions over 12–24 months would reveal whether the relationships identified here are stable or dynamically contingent on technology adoption cycles. Second, industry-comparative studies—across retail,



banking, healthcare, and hospitality—would identify sector-specific moderators that attenuate or amplify the omnichannel–perception relationship. Third, AI-driven personalization—using large language models and real-time behavioral inference—constitutes a new frontier in omnichannel strategy that existing frameworks do not yet fully accommodate; theoretical and empirical work in this domain is urgently needed.

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