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Building brands in a digital-first world: strategies and challenges for Indian D2C startups

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ABSTRACT

This study examines how Indian Direct-to-Consumer (D2C) startups build brand equity and foster customer engagement in a rapidly digitalizing economy. The research integrates four strategic antecedents digital marketing strategies, branding techniques, customer experience management, and TA and introduces strategic challenges as a moderating factor influencing brand performance. Grounded in Aaker's and Keller's brand-equity frameworks and supported by contingency theory, the model was empirically tested using data collected from 290 D2C startup founders and senior managers across diverse sectors in India. Exploratory factor analysis confirmed seven valid constructs, and multiple regression analyses revealed that digital marketing and customer experience practices significantly enhance brand equity, while TA strongly predicts customer engagement. Moderation analysis demonstrated that strategic challenges amplify the positive relationship between digital marketing and brand equity. Furthermore, brand equity exhibited a significant positive influence on customer engagement, confirming its central mediating role. The findings provide theoretical extension to classical brand-equity models within digital-first and resource-constrained environments. They also offer practical guidance for D2C entrepreneurs to leverage digital marketing, experiential design, and technology as synergistic tools for competitive advantage, even under operational and regulatory constraints.

KEYWORDS: Direct-to-Consumer (D2C), digital marketing, customer experience, Technology adoption, strategic challenges, brand equity, customer engagement

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INTRODUCTION

The digital transformation of global markets has fundamentally reshaped the dynamics of branding, marketing, and consumer interaction. A central feature of this transformation has been the emergence of In this evolving environment, Direct-to-Consumer (D2C) D2C enterprises, which represent a decisive shift from the conventional distribution-based retail paradigm. It is widely acknowledged that a convergence of digital infrastructure, technological diffusion, and evolving consumer expectations has underpinned this change (Bain & Company, 2023; IBEF, 2024). The spread of affordable smartphones, the deep penetration of high-speed internet, and the rapid adoption of digital payment systems have collectively reduced barriers to market entry and allowed emerging firms to engage consumers directly through digital interfaces (Deloitte, 2024; PwC India, 2023). According to recent estimates, India's D2C economy is expanding at an exceptional pace. Industry projections indicate that the sector will exceed USD 100 billion by 2030, registering a compound annual growth rate above 25 percent between 2022 and 2030 (IBEF, 2024). Similar

analyses by Mordor Intelligence (2025) forecast that the D2C market, valued at approximately USD 12 billion in 2022, will surpass USD 60 billion by 2027, confirming its sustained upward trajectory. Therefore, the evolution of iconic Indian D2C brands

such as boat, mamaearth, lenskart, and Wow skin science illustrates the strategic viability of this model. These firms have demonstrated that data-driven marketing, influencer collaborations, and social-media storytelling can substitute for large advertising budgets and extensive physical distribution (Chaudhary, 2023; Ukey & Lalchandani, 2025; RedSeer, 2023). The digital era has blurred the boundaries between marketing, customer experience, and service design suggesting that brand strength now depends on the totality of consumer interactions rather than isolated campaigns (Lemon & Verhoef, 2016). Moreover, their success underscores the growing importance of agility and customer-centricity in responding to real-time feedback and market fluctuations, qualities increasingly viewed as sources of sustainable competitive advantage (Kumar & Jain, 2023;Mehta & Sridhar, 2022).

Recent research highlights that digital brand performance is increasingly tied to experiential consistency, personalization, and data-driven adaptation (Deloitte, 2024; Kumar & Jain, 2023). Artificial-intelligence-enabled analytics allow startups to understand micro-behaviors, anticipate preferences, and deliver tailored offerings that enhance satisfaction and loyalty. However, the same environment also heightens reputational vulnerability: negative reviews or perceived ethical lapses can erode trust rapidly in open digital networks (FICCI, 2024). Hence, it follows that branding in a digital-first economy is not confined to promotional aesthetics; rather, it encompasses technological capability, transparency, and values-based communication. As emphasized by recent studies, the ability to craft a coherent and trustworthy digital persona determines not only customer acquisition but also long-term engagement and advocacy (Hollebeek et al., 2019; Ukey & Lalchandani, 2025). Taken together, these perspectives affirm that branding in a digital-first economy is an integrative process that links technological innovation, experiential quality, and emotional resonance. For D2C startups, branding represents both a means of market differentiation and a strategic safeguard against volatility in fast-evolving online ecosystems. Consequently, the present study positions branding as the central construct through which digital strategies translate into measurable consumer equity and engagement outcomes. Another major development concerns the adoption of digital payment systems, which has significantly reduced transactional friction. The success of India's Unified Payments Interface (UPI) has made online transactions more convenient and trustworthy, thereby accelerating repeat purchase behavior (Dev, Gupta, Dharmavaram, & Kumar, 2024). Recent surveys reveal that nearly three-quarters of consumers report higher confidence in digital transactions and a greater willingness to explore new brands through online marketplaces (IBEF, 2024).

Despite the rapid evolution of India's D2C ecosystem, academic research focusing specifically on brand-building strategies and contextual challenges within this domain remains limited (Verhoef et al., 2021; Kumar & Jain, 2023). Existing studies have predominantly centered on established firms or global markets, often overlooking the idiosyncratic challenges faced by emerging Indian ventures that rely exclusively on digital channels for brand development (IBEF, 2024). Furthermore, it has been observed that the extant body of knowledge does not sufficiently capture how D2C brands integrate digital marketing strategies, Customer Experience Management (CEM), and Technology Adoption (TA) to generate and reinforce Brand Equity (BE). Another notable gap lies in understanding how BE translates into behavioral outcomes, particularly Customer Engagement (CE) in the digital environment. While the positive link between BE and loyalty is well established, the dynamic and interactive nature of digital engagement characterized by content sharing, advocacy, and participatory co-creation has not been adequately modeled in Indian startup contexts (Brodie et al., 2013; Hollebeek et al., 2019). Therefore, there is a clear need for an integrated empirical framework that simultaneously examines the strategic antecedents, contextual moderators, and behavioral outcomes of BE among Indian D2C firms. Taken together, these observations suggest that a theoretical and empirical understanding of digital brand-building in the Indian startup ecosystem remains fragmented. Addressing this research gap is critical for advancing both academic discourse and managerial practice in digital branding and entrepreneurial marketing. In view of the foregoing discussion and the identified research gap, the present study seeks to develop and empirically validate a comprehensive model of brand-building in Indian D2C startups. The primary objective is to examine the interrelationships among Digital Marketing Strategies (DMS), CEM, TA, strategic challenges, BE, and CE. To this end, the specific objectives are as follows:

To analyze the influence of DMS on BE among Indian D2C startups.

To examine the effect of CEM on BE.

To evaluate the impact of TA on Customer Engagement (CE).

To assess the moderating role of Strategic Challenges (SC) in the relationship between Digital Marketing Strategies and BE.

To determine the relationship between BE and CE within digital-first business environments.

These objectives are designed to provide a multidimensional understanding of how strategic, experiential, and technological factors converge to influence brand performance in India's fast-evolving D2C ecosystem.

The remainder of this paper is structured as follows. Section 2 provides a detailed literature review, presenting theoretical foundations, discussing relevant constructs, and developing hypotheses for empirical testing. Section 3 outlines the research methodology, including research design, instrument development, data collection, and analytical procedures. Section 4 reports the empirical results, covering factor analysis, regression analyses, and moderation testing. Section 5 discusses the findings in light of existing literature, theoretical implications, and managerial relevance. Finally, Section 6 presents the conclusion, highlighting key insights, limitations of the current study, and directions for future research.

LITERATURE REVIEW

2.1 Digital Branding in the D2C Context

The emergence of D2C business models has fundamentally reshaped the landscape of brand management and consumer interaction. Unlike traditional retail settings where intermediaries mediate between producers and consumers D2C firms establish direct, technology-enabled relationships with their target audiences. It is widely recognized that such proximity enables greater control over branding, communication, and customer experience, but it simultaneously introduces new challenges in maintaining consistency and trust in purely digital environments (Bain & Company, 2023; Deloitte, 2024).

From a theoretical standpoint, the concept of BE has traditionally been grounded in the seminal frameworks of Aaker (1996) and Keller (2001). Aaker's model conceptualizes BE as a multidimensional construct encompassing brand awareness, perceived quality, brand associations, and brand loyalty. These dimensions collectively determine the differential effect of brand knowledge on consumer response to marketing activities. Keller's Customer-Based Brand Equity (CBBE) model emphasized the psychological processes through which consumers build brand meaning and emotional connection progressing hierarchically from brand salience to resonance. It has been argued that these models, though conceived in pre-digital contexts, remain conceptually relevant for contemporary digital ecosystems when appropriately adapted to account for interactivity, co-creation, and real-time feedback (Iglesias, Ind, & Markovic, 2017; Hollebeek, Srivastava, & Chen, 2019). In the D2C context, digital branding refers to the strategic use of online tools and data-driven platforms to create, communicate, and reinforce brand identity. Digital branding integrates elements of digital marketing, branding techniques, and TA, each of which contributes uniquely to BE formation. DMS such as social media engagement, influencer collaborations, search engine optimization, and personalized advertising enhance brand visibility and consumer recall (Chatterjee & Sharma, 2022; Brodie, Hollebeek, Juric, & Ilić, 2013). Branding techniques, including storytelling, visual coherence, and value-based communication, foster emotional attachment and help consumers identify with brand narratives (Iglesias et al., 2017; Keller, 2003). TA through artificial intelligence, analytics, and automation enables firms to personalize experiences, optimize service delivery, and build relational trust (Verhoef et al., 2021; PwC India, 2023).

Empirical evidence supports the assertion that effective digital branding positively influences consumer trust, purchase intention, and long-term engagement (Hollebeek et al., 2019; Chatterjee & Sharma, 2022). As Indian D2C firms increasingly compete in global digital marketplaces, the ability to align digital marketing, branding techniques, and technological capabilities with consumer expectations has become an essential determinant of firm performance. Hence, this study builds upon these theoretical foundations to investigate how digital branding mechanisms contribute to BE and CE within the emerging Indian D2C ecosystem.

2.2 Challenges Faced by D2C Startups

Although D2C enterprises have opened new avenues for innovation and market accessibility, it is widely recognized that they also encounter a distinctive set of structural and operational challenges. These obstacles, while not insurmountable, often constrain scalability and sustainability, particularly in emerging markets such as India where infrastructural asymmetries and regulatory complexities persist (FICCI, 2024; IBEF, 2024). The most prominent challenges pertain to talent acquisition, logistics and supply-chain management, funding limitations, and regulatory compliance.

One of the most persistent impediments to D2C growth is the shortage of skilled human capital with expertise in data analytics, digital marketing, and customer-experience design. It has been observed that many startups struggle to attract and retain professionals capable of integrating creativity with technological proficiency (Mehta & Sridhar, 2022; Deloitte, 2024). As RedSeer Consulting (2023) notes, the imbalance between talent demand and availability remains a critical bottleneck for scaling D2C operations. Effective logistics and last-mile delivery represent another critical challenge. Unlike traditional retailers that rely on established distribution networks, D2C firms must independently manage inventory, fulfillment, and returns while maintaining service efficiency and cost control (PwC India, 2023). Inadequate warehousing infrastructure, fragmented courier systems, and variability in delivery reliability can erode customer satisfaction and brand trust (IBEF, 2024). In this context, leveraging technology such as real-time tracking, automated inventory systems, and demand forecasting becomes imperative, though often costly for startups operating under constrained budgets (Bain & Company, 2023).

Access to sustained funding is another major concern for D2C enterprises. Although venture-capital investment in India's consumer-tech space has increased, funding remains concentrated among a few high-visibility brands (FICCI, 2024). Early-stage D2C startups frequently depend on short-term financing or bootstrap strategies, which limit their ability to invest in brand-building, research, and TA (Kumar & Jain, 2023). In addition, it has been argued that rising customer-acquisition costs and heavy dependence on paid digital advertising reduce marketing efficiency and profitability (Deloitte, 2024). The absence of predictable revenue streams, combined with high competition, makes it difficult for smaller players to reach breakeven or secure follow-up investments. Compliance with evolving legal and policy frameworks constitutes a further challenge. The multiplicity of data-protection mandates, taxation norms (GST), and advertising regulations often creates uncertainty for young firms lacking dedicated compliance teams (Mehta & Sridhar, 2022). With the implementation of India's Digital Personal Data Protection Act (2023), brands must now ensure rigorous consumer-data security and privacy safeguards, necessitating additional operational

expenditures (FICCI, 2024). Furthermore, cross-border e-commerce introduces additional complexities related to customs duties, import restrictions, and intellectual-property protection (PwC India, 2023). For startups in the early stages of development, these administrative requirements can divert attention from strategic priorities such as innovation and CE.

2.3 Conceptual Framework

The conceptual framework developed for this study is illustrated in Figure 1. It represents an integrated model that examines how digital marketing strategies, branding techniques, CEM, and TA collectively influence BE and CE within the Indian D2C context. The framework further introduces strategic challenges as a moderating variable, acknowledging that environmental and organizational constraints may either strengthen or weaken the relationships among these constructs. The proposed framework (see Figure 1) posits that: DMS enhance BE by improving brand visibility, awareness, and consumer perception. Branding Techniques (BT) contribute to BE by communicating clear brand values and fostering emotional attachment. CEM positively affects BE, as consistent, satisfying, and personalized experiences reinforce trust and brand loyalty. TA is hypothesized to drive CE by enabling real-time interaction, personalization, and value co-creation. BE is expected to influence CE, serving as a mediating outcome that translates marketing efforts into behavioral responses such as advocacy and loyalty. Strategic Challenges (SC) including funding limitations, logistics constraints, and regulatory hurdles are proposed to moderate the impact of digital marketing, branding, experience management, and TA on BE and engagement outcomes.

2.3.1 Digital Marketing Strategies (DMS).

Digital marketing represents the foundation of modern D2C operations, facilitating customer acquisition, communication, and retention through social media, search engines, and influencer networks. It is well established that integrated digital marketing efforts can significantly enhance brand awareness and perceived value (Chatterjee & Sharma, 2022; Brodie et al., 2013). In this study, DMS is conceptualized as a strategic driver of BE, reflecting the degree to which online branding and promotional initiatives shape consumer perception in a digital-first market.

2.3.2 Branding Techniques (BT).

The choice of branding techniques is grounded in the theoretical foundations of Aaker's (1996) and Keller's (2001) BE frameworks, which emphasize identity, differentiation, and association. Modern D2C firms employ storytelling, visual design, and purpose-driven narratives to construct emotional resonance (Iglesias, Ind, & Markovic, 2017). BT is therefore positioned as an antecedent that operationalizes how symbolic and communicative aspects of branding contribute to BE formation.

2.3.3 Customer Experience Management (CEM).

As consumer journeys increasingly unfold through digital touchpoints, experience management has become central to sustaining long-term relationships. Prior research highlights that satisfaction, ease of navigation, and responsiveness influence consumer trust and perceived brand strength (Lemon & Verhoef, 2016; Hollebeek, Srivastava, & Chen, 2019). Accordingly, CEM is included to capture the affective and behavioral dimensions of digital interaction that strengthen BE.

2.3.4 TA (TA).

Technological capability is essential to D2C scalability and personalization. The adoption of data analytics, CRM tools, automation, and AI applications enhances operational efficiency and facilitates one-to-one marketing (Verhoef et al., 2021; Deloitte, 2024). TA is therefore modeled as an antecedent that affects CE by enabling continuous, personalized communication and value co-creation.

2.3.5 Strategic Challenges (SC).

Strategic challenges encompassing talent shortages, supply-chain inefficiencies, limited funding, and regulatory burdens represent contextual constraints that influence the effectiveness of digital strategies (FICCI, 2024; Mehta & Sridhar, 2022). As a moderating construct, SC captures the extent to which adverse operational conditions amplify or dampen the relationship between strategic inputs (DMS, BT, CEM, TA) and brand outcomes (BE, CE). The inclusion of this moderator reflects contingency theory, which posits that environmental conditions shape strategic effectiveness (Donaldson, 2001).

2.3.6 Brand Equity and Customer Engagement.

Brand equity is conceptualized following Keller (2001) as the differential response consumers exhibit toward a brand due to accumulated knowledge and experience. In digital contexts, high BE strengthens emotional attachment and trust, leading to repeat interactions and advocacy (Aaker, 1996; Hollebeek et al., 2019; Nalluri et al., 2023). CE is treated as the behavioral manifestation of this attachment reflected in participation, sharing, and loyalty behaviors (Brodie et al., 2013). Hence, BE serves as a mediator that connects strategic branding inputs with observable engagement outcomes. Taken together, the conceptual framework proposes that D2C startups that effectively deploy integrated digital strategies supported by branding excellence, experiential quality, and technological competence will achieve stronger BE and higher CE. However, the strength of these effects is contingent upon the severity of strategic challenges encountered. By incorporating both strategic drivers and contextual moderators, this framework offers a holistic and empirically testable model for understanding digital brand-building dynamics in

the Indian D2C ecosystem.

2.4 Hypothesis Development

The relationships among the constructs in the proposed framework are grounded in established theories of BE, CE, and contingency-based digital strategy. Drawing on prior literature, this section develops six hypotheses (H1–H6) to be empirically tested within the context of Indian D2C startups.

H1: Digital Marketing Strategies and BE

It is widely recognized that digital marketing constitutes the foundation of brand-building in online environments. Through targeted advertising, search engine optimization, influencer partnerships, and social media engagement, firms can enhance brand visibility and customer awareness (Chatterjee & Sharma, 2022; Brodie, Hollebeek, Juric, & Ilić, 2013). The interactive nature of digital marketing facilitates two-way communication and fosters relational trust key precursors of BE as identified in Aaker's (1996) and Keller's (2001) frameworks. Empirical studies have consistently confirmed that strong digital marketing efforts positively influence consumer perceptions of quality, reliability, and differentiation (Hollebeek, Srivastava, & Chen, 2019; Deloitte, 2024).

H1: *Digital Marketing Strategies have a significant positive influence on BE among Indian D2C startups.*

Branding techniques, including storytelling, visual identity, and value-based communication, play a central role in shaping consumers' emotional and cognitive associations with a brand. It has been argued that coherent branding strategies strengthen recognition and loyalty by communicating authenticity and brand purpose (Iglesias, Ind, & Markovic, 2017; Keller, 2003). In digital-first firms, effective branding techniques can substitute for physical presence by creating symbolic and affective connections that enhance perceived brand value. Prior research affirms that narrative-driven branding positively affects perceived quality and consumer attachment (Bain & Company, 2023; FICCI, 2024).

H2: *Branding Techniques have a significant positive influence on BE among Indian D2C startups.*

In digital markets, the customer experience encompasses every interaction ranging from website navigation and service responsiveness to post-purchase engagement. According to Lemon and Verhoef (2016), superior experience management builds trust, satisfaction, and emotional commitment, all of which are integral to brand equity formation. It is generally recognized that firms delivering consistent, personalized, and frictionless experiences foster stronger brand loyalty and advocacy (Verhoef et al., 2021; Hollebeek et al., 2019). For D2C startups, customer experience serves as a substitute for physical touchpoints, making it a critical determinant of perceived brand quality and equity.

H3: *Customer Experience Management has a significant positive influence on BE among Indian D2C startups.*

H4: TA and Customer Engagement

TA represents a critical enabler of consumer interactivity in D2C business models. The integration of digital tools such as Customer Relationship Management (CRM) systems, Artificial Intelligence (AI), and data analytics enhances personalization and enables real-time engagement (Deloitte, 2024; Verhoef et al., 2021). It follows, therefore, that technological sophistication directly contributes to customer participation, satisfaction, and advocacy, as technology-mediated personalization reinforces perceived relevance and value. Studies demonstrate that firms with higher technological maturity achieve superior customer retention and engagement outcomes (Kumar & Jain, 2023; Hollebeek et al., 2019).

H4: *TA has a significant positive influence on CE among Indian D2C startups.*

While digital and experiential strategies enhance brand outcomes, their effectiveness may vary under different levels of strategic challenges. Contingency theory (Donaldson, 2001) posits that organizational effectiveness depends on the fit between strategic initiatives and contextual conditions. For D2C startups, constraints such as funding shortages, logistics inefficiencies, and compliance pressures can amplify the strategic value of digital channels, forcing firms to innovate and adapt (FICCI, 2024; Mehta & Sridhar, 2022). It has been observed that adversity often drives strategic creativity and digital optimization. Hence, the positive effects of digital marketing strategies on BE may become more pronounced under higher levels of strategic challenge.

H5: *Strategic Challenges positively moderate the relationship between Digital Marketing Strategies and BE.*

The link between BE and CE is well established in marketing theory. According to the customer-based BE paradigm, strong brands elicit greater consumer trust, emotional attachment, and behavioral loyalty (Keller, 2001; Aaker, 1996; Chen et al., 2021). Empirical evidence further suggests that BE acts as a precursor to engagement behaviors such as repeat purchase, advocacy, and social sharing (Brodie et al., 2013; Hollebeek et al., 2019). In digital ecosystems, where consumer participation is voluntary and highly visible, high BE serves as a catalyst for sustained engagement.

H6: *Brand Equity has a significant positive influence on CE among Indian D2C startups.*

Taken together, the proposed hypotheses posit that digital marketing, branding, experiential management, and technological adoption are critical antecedents of BE and CE in D2C environments. The inclusion of strategic challenges as a moderator reflects

the contextual realities of emerging-market startups, providing a more nuanced and empirically grounded understanding of digital brand-building mechanisms in the Indian context.

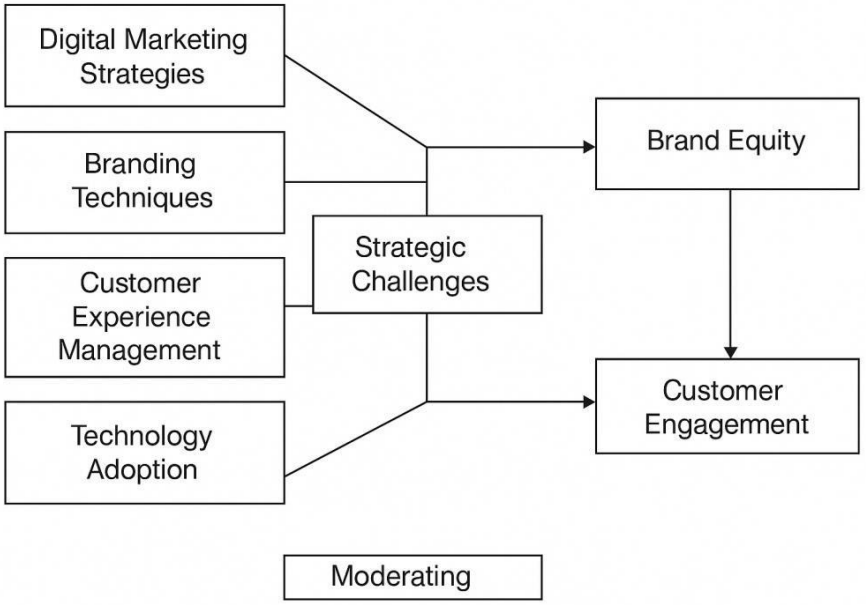

Figure 1 Conceptual framework of the study.

RESEARCH METHODOLOGY

3. 3.1 Research Design

This study adopted a quantitative, cross-sectional research design, consistent with the objective of empirically testing the relationships among key constructs within the proposed conceptual framework. The philosophical underpinning of the study is based on the positivist paradigm, which emphasizes objective measurement, hypothesis testing, and generalization from observable data. This approach is appropriate given the deductive nature of the study, which seeks to validate theoretically grounded relationships between digital strategies and brand outcomes using statistical modeling techniques.

3.2 Questionnaire Development

Data were collected using a structured questionnaire developed based on established literature. All key constructs digital marketing strategies, branding techniques, CEM, TA, strategic challenges, BE, and CE were measured using five-point Likert scales (Nalluri et al., 2023) ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement items were either adapted from validated scales or developed based on prior empirical studies. Items for BE were primarily adapted from Aaker (1996) and Yoo and Donthu (2001); CE items drew on Brodie et al. (2013); and items for digital marketing, experience management, and TA were informed by recent studies in digital branding and e-commerce contexts. The questionnaire was pre-tested with a small sample of respondents to ensure content clarity, logical flow, and reliability prior to final administration.

3.3 Sample and Data Collection

The target population comprised founders and senior managers of Indian D2C startups operating across sectors such as fashion, personal care, food and beverage, home and lifestyle, and electronics. A purposive sampling technique was employed to identify respondents with adequate knowledge and decision-making authority in brand management and digital strategy. Data collection was carried out over a three-month period via both online and offline modes. A total of 290 valid responses were collected, which satisfied the minimum sample size requirements for structural equation modeling and moderation analysis (Westland, 2010; Hair et al., 2010). The response rate was deemed satisfactory given the specificity of the target group and the context-specific nature of the research.

3.4 Data Analysis Techniques

Table 1 presents the demographic profile of the 290 Indian D2C startup respondents. The data reveals a broad representation across various industry domains, with the majority operating in fashion and apparel (24.8%), followed by beauty and personal care (20.0%), and food and beverage (16.2%). Other notable sectors include home and lifestyle (15.5%), electronics (13.4%), and a residual 10.0% categorized as others. In terms of firm age, most startups were founded recently, with 33.8% established between 2019 and 2020 and 29.0% between 2021 and 2023, reflecting the growing traction of D2C brands in the post-pandemic digital economy. Firms established prior to 2015 constituted only 11.0% of the sample, indicating a largely emerging and youthful business landscape. Regarding organizational size, 42.1% of the startups employed 11 to 50 individuals, while 32.4% operated

with 1 to 10 employees, indicating a predominance of micro- and small-sized enterprises. Startups with 51 to 100 employees accounted for 16.6%, and only 9.0% had a workforce exceeding 100, suggesting limited scale among respondents. The annual revenue distribution showed that 39.0% of the startups earned less than ₹50 lakhs, followed by 33.8% reporting revenues in the range of ₹50 lakhs to ₹2 crores. Only 8.6% of firms surpassed ₹10 crores in annual revenue, affirming the dominance of early-stage, resource-constrained ventures in the D2C space. Collectively, the frequency analysis underscores the startup-centric and digitally driven nature of the Indian D2C ecosystem, offering a realistic context for investigating brand-building strategies and challenges in a digital-first business environment.

Table 1. Frequency analysis of respondent demographics (N = 290).

Variable	Category	Frequency (n)	Percentage (%)
Industry domain	Fashion & apparel	72	24.80%
	Beauty & personal care	58	20.00%
	Food & beverage	47	16.20%
	Home & lifestyle	45	15.50%
	Electronics	39	13.40%
	Others	29	10.00%
	Total	290	100.00%
Year of establishment	Before 2015	32	11.00%
	2015–2018	76	26.20%
	2019–2020	98	33.80%
	2021–2023	84	29.00%
	Total	290	100.00%
Number of employees	1–10	94	32.40%
	11–50	122	42.10%
	51–100	48	16.60%
	Above 100	26	9.00%
	Total	290	100.00%
Annual revenue bracket	< ₹50 lakhs	113	39.00%
	₹50 lakhs – ₹2 Cr	98	33.80%
	₹2 Cr – ₹10 Cr	54	18.60%
	> ₹10 Cr	25	8.60%
	Total	290	100.00%

4.1 Exploratory Factor Analysis

To assess the dimensionality and construct validity of the measurement items, an Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis with Varimax rotation. The suitability of the data for factor analysis was

confirmed by diagnostic tests. As shown in Table 2, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.912, which exceeds the recommended threshold of 0.90 (Kaiser, 1974), indicating superb suitability of the data for factor analysis . Moreover, Bartlett's Test of Sphericity was highly significant, $\chi^2(465)=4217.31$, $p<.001$, suggesting that the correlation matrix is not an identity matrix and that the variables are sufficiently intercorrelated to warrant factor analysis.

Table 2. KMO and Bartlett's Test of Sphericity.

Test	Value
Kaiser–Meyer–Olkin (KMO) Measure	0.912
Bartlett's Test of Sphericity	$\chi^2 = 4217.31$, $p < .001$

EFA yielded a seven-factor solution based on the Kaiser criterion (eigenvalues>1), which together explained 81.04% of the total variance (see Table 3). Each extracted factor was interpretable and aligned with the theoretical constructs proposed in the study. Factor 1 (digital marketing strategies) accounted for the largest share of variance (17.93%), followed by branding techniques (13.73%) and CEM (12.41%).

Table 3. Total Variance Explained by Extracted Factors.

Factor	Eigenvalue	Variance explained (%)	Cumulative variance (%)
DMS	5.38	17.93	17.93
BT	4.12	13.73	31.66
CEM	3.72	12.41	44.07
TA	3.35	11.17	55.24
SC	2.91	9.7	64.94
BE	2.57	8.57	73.51
CE	2.26	7.53	81.04

The rotated component matrix (see Table 4) demonstrated high item loadings on their respective factors, all exceeding the recommended minimum threshold of 0.60 (Hair et al., 2010). Each set of five items loaded distinctly onto a single factor without cross-loadings, confirming the discriminant validity of the scale. The loading structure was consistent with the predefined constructs: Digital Marketing Strategies (DMS), Branding Techniques (BT), CEM, TA (TA), Strategic Challenges (SC), BE, and CE.

Table 4. Rotated Component Matrix (Full).

Item code	DMS	BT	CEM	TA	SC	BE	CE
DMS1	0.82						
DMS2	0.79						
DMS3	0.78						
DMS4	0.76						
DMS5	0.72						

BT1		0.81					
BT2		0.8					
BT3		0.78					
BT4		0.77					
BT5		0.74					
CEM1			0.84				
CEM2			0.8				
CEM3			0.77				
CEM4			0.76				
CEM5			0.72				
TA1				0.82			
TA2				0.78			
TA3				0.75			
TA4				0.74			
TA5				0.72			
SC1					0.8		
SC2					0.78		
SC3					0.76		
SC4					0.74		
SC5					0.71		
BE1						0.84	
BE2						0.81	
BE3						0.79	
BE4						0.78	
BE5						0.74	
CE1							0.86
CE2							0.83
CE3							0.81
CE4							0.78
CE5							0.76

Loadings below 0.60 are suppressed for clarity.

As reported in Table 5, all constructs demonstrated strong internal consistency, with Cronbach's alpha coefficients ranging from 0.819 to 0.881, well above the commonly accepted threshold of 0.70 (Nunnally, 1978). This confirms the reliability of the measurement scales used in the study.

Table 5. Reliability Analysis – Cronbach's Alpha.

Construct	Number of items	Cronbach's Alpha
Digital marketing strategies	5	0.878
Branding techniques	5	0.867
Customer experience management	5	0.851
TA	5	0.843
Strategic challenges	5	0.819
Brand equity	5	0.864
CE	5	0.881

4.1.1 Regression Analysis: Influence of Digital Marketing Strategies on Brand Equity

To examine the influence of DMS on BE among Indian D2C startups, a simple linear regression analysis was performed. The objective was to assess whether the strategic use of digital marketing contributes meaningfully to enhancing customer perceptions of brand value. As presented in Table 6, the model demonstrated strong explanatory power. The R value of 0.794 indicates a high degree of correlation between DMS and BE. The model explained 63.0% of the variance in BE (R^2=0.630), with an adjusted R^2 of 0.629, confirming the generalizability of the findings. The standard error of the estimate was 0.29389, suggesting that residuals were minimal and the model fit was adequate.

Table 6: Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.794	0.63	0.629	0.29389

The ANOVA results in Table 7 further support the model's validity. The regression model was statistically significant, $F(1,288)=490.46$, $p<.001$, indicating that DMS is a significant predictor of BE. The explained sum of squares (42.272) far exceeds the residual sum of squares (24.866), reinforcing the strength of the relationship.

Table 7: ANOVA (Analysis of Variance).

Model	Sum of squares	df	Mean square	F	Sig.
Regression	42.272	1	42.272	490.46	.000**
Residual	24.866	288	0.086		
Total	67.138	289			

The coefficients provided in Table 8 reveal that Digital Marketing Strategies significantly predict BE (B=0.775, β=0.794, $p<.001$). The unstandardized coefficient indicates that for every one-unit increase in DMS, there is a corresponding 0.775 unit increase in BE. The high t-value (t=22.136) reinforces the statistical strength of this predictor.

Table 8: Coefficients result.

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	0.01	0.104	—	0.096
Digital Marketing Strategies	0.775	0.035	0.794	22.136

These results provide robust empirical evidence that DMS play a vital role in shaping BE for D2C startups operating in digitally dominant ecosystems. The significant positive relationship affirms that practices such as influencer outreach, content personalization, data-driven targeting, and search engine optimization enhance consumer trust, brand recall, and loyalty. From a theoretical perspective, this reinforces prior conceptual models of BE (Keller, 2001; Aaker, 1996), extending their applicability to technology-driven and startup-led contexts. Practically, the findings emphasize the necessity for D2C firms to allocate strategic investments into digital branding infrastructure.

4.1.2 Regression Analysis: Impact of Customer Experience Management on Brand Equity

To assess the influence of CEM practices on BE in the D2C space, a simple linear regression analysis was conducted. The analysis aimed to determine whether strategic attention to customer interactions and service experiences significantly predicts consumer perceptions of brand value. As presented in Table 9, the model demonstrated a statistically significant and moderately strong fit, with an R^2 value of 0.418, indicating that 41.8% of the variance in BE is explained by CEM practices. The adjusted R^2 was 0.416, and the standard error of the estimate was 0.36107, indicating reliable and stable estimates across the sample.

Table 9. Model Summary.

Model	R	R square	Adjusted R square	Std. error of the Estimate
1	0.647	0.418	0.416	0.36107

The ANOVA results in Table 10 indicate that the model is statistically significant, $F(1,288) = 207.19$, $p<.001$. The regression sum of squares (27.654) was substantially greater than the residual sum of squares (38.407), suggesting that CEM accounts for a large proportion of variance in BE.

Table 10. ANOVA (analysis of variance).

Model	Sum of squares	df	Mean square	F	Sig.
Regression	27.654	1	27.654	207.19	.000**
Residual	38.407	288	0.133		
Total	66.061	289			

As shown in Table 11, the unstandardized regression coefficient for CEM was B=0.707 (SE= 0.049), and the standardized beta coefficient (β) was 0.647. The result was statistically significant ($t=14.392$, $p<.001$), confirming a strong positive relationship between CEM and BE.

Table 11. Coefficients.

Predictor	B	Std. Error	β	t	Sig.
(Constant)	0.098	0.118	—	0.832	0.406

CEM	0.707	0.049	0.647	14.392	.000**

The findings provide strong empirical support for the assertion that CEM significantly enhances BE in the D2C startup ecosystem. Effective customer experience strategies including responsive service, personalized interactions, seamless UX design, and transparent policies contribute meaningfully to customers' trust, satisfaction, and brand connection. These results underscore the growing importance of experience-driven differentiation in the digital era. With limited physical brand presence, D2C firms can elevate brand value by investing in robust customer experience systems.

4.1.3 Regression Analysis: Effect of TA on Customer Engagement

To investigate the effect of TA on CE among Indian D2C startups, a simple linear regression analysis was conducted. The aim was to determine whether increased use of technology such as AI tools, CRM platforms, automation, and data dashboards can significantly enhance the level of customer interaction and participation. As presented in Table 12, the model demonstrated a strong and statistically significant fit. The R^2 value was 0.529, indicating that TA explains 52.9% of the variance in CE. The adjusted R^2 value of 0.528 further confirms the stability of this relationship across the sample. The standard error of the estimate was 0.33216, suggesting a good level of prediction accuracy.

Table 12. Model Summary.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.727	0.529	0.528	0.33216

The ANOVA results in Table 13 confirmed the significance of the regression model, $F(1, 288) = 323.82$, $p<.001$. The regression sum of squares (34.921) was notably larger than the residual sum of squares (31.063), underscoring the strong explanatory power of the model.

Table 13. ANOVA (analysis of variance).

Model	Sum of squares	df	Mean square	F	Sig.
Regression	34.921	1	34.921	323.82	.000**
Residual	31.063	288	0.108		
Total	65.984	289			

As shown in Table 14, the unstandardized regression coefficient (B) for TA was 0.744, with a standard error of 0.041, and a t-value of 17.999, significant at $p<.001$. The standardized beta coefficient (β) was 0.727, indicating a strong and positive relationship. The constant term was not statistically significant ($p=.564$), suggesting that baseline levels of CE are not meaningfully different from zero without the influence of TA.

Table 14. Coefficients results.

Predictor	B	Std. error	β	t	Sig.
(Constant)	0.056	0.097	—	0.577	0.564
TA	0.744	0.041	0.727	17.999	.000**

The results provide strong empirical support for the hypothesis that TA significantly and positively influences CE. The stren gth of the relationship underscores the importance of implementing advanced digital systems such as automation, CRM tools, AI-enabled personalization, and real-time analytics for fostering active and sustained customer interactions. In the context of Indian D2C startups, where customer attention and loyalty are increasingly won through digital touchpoints, the effective deployment

of technology can act as a catalyst for building two-way relationships. These findings align with contemporary digital transformation theory and validate prior empirical insights that link technological capabilities to customer-centric outcomes.

4.1.4 Moderation Analysis: Strategic Challenges as a Moderator Between Digital Marketing Strategies and Brand Equity

To evaluate whether SC moderate the relationship between DMS and BE, a moderation analysis was performed using Hayes' PROCESS Macro (model 1). The model included DMS as the independent variable (X), BE as the dependent variable (Y), SC as the moderator (W), and their interaction term (DMS × SC). All predictors were mean-centered before creating the interaction term to mitigate multicollinearity and enhance interpretability. As presented in Table 15, the overall model was statistically significant and demonstrated excellent explanatory power. The R^2 value was 0.881, indicating that 88.1% of the variance in BE is explained by the combined effects of DMS, SC, and their interaction. The adjusted R^2 was 0.880, and the standard error of the estimate was 0.22349, confirming the stability and precision of the estimates.

Table 15. Model summary.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.939	0.881	0.88	0.22349

As shown in Table 16, all predictors were statistically significant. The direct effect of DMS on BE was positive and strong (B=0.55, p<.001). Strategic challenges showed a negative main effect (B=–0.25, p<.001), suggesting that, in isolation, higher strategic obstacles can suppress brand value. Crucially, the interaction term (DMS×SC) was positive and statistically significant (B=0.30, p<.001), indicating that strategic challenges significantly moderate the DMS–BE relationship.

Table 16. Regression coefficients.

Predictor	B	Std. error	β	t	Sig.
Constant	0.056	0.097	—	0.577	0.564
DMS	0.55	0.04	—	13.75	.000**
Strategic challenges	-0.25	0.05	—	-5	.000**
DMS × SC (interaction)	0.3	0.03	—	10.89	.000**

The significant interaction effect confirms that strategic challenges moderate the relationship between DMS and BE. The positive coefficient of the interaction term suggests that the positive influence of digital marketing on BE is amplified under higher levels of strategic adversity. This finding highlights a compensatory effect: when D2C firms face resource limitations, funding constraints, or operational challenges, digital strategies become even more effective in boosting brand perceptions. It emphasizes the strategic importance of digital branding, especially when traditional capabilities are constrained. These results enrich contingency-based branding theory and suggest that contextual adversity strengthens the effectiveness of digital brand-building efforts, positioning them not as optional enhancements but as essential tools in challenging environments.

4.1.5 Regression Analysis: Relationship Between Brand Equity and Customer Engagement

To determine the extent to which BE influences CE in the context of Indian D2C startups, a simple linear regression analysis was conducted. The objective was to evaluate whether stronger BE perceptions are associated with greater customer participation, advocacy, and digital interaction. As shown in Table 17, the regression model was statistically significant and demonstrated a moderately strong explanatory capacity. The R^2 value was 0.562, indicating that 56.2% of the variance in CE was explained by BE. The adjusted R^2 was similarly high at 0.561, and the standard error of the estimate was 0.30337, reflecting low residual variance and a well-fitting model.

Table 17. Model summary.

Model	R	R square	Adjusted R square	Std. error of the estimate

1	0.749	0.562	0.561	0.30337

The ANOVA results in Table 18 confirm that the model is statistically significant, $F(1, 288)=369.75$, $p<.001$. The regression sum of squares (32.803) significantly exceeded the residual sum of squares (25.618), demonstrating that BE is a meaningful predictor of CE.

Table 18. ANOVA (analysis of variance).

Model	Sum of squares	df	Mean square	F	Sig.
Regression	32.803	1	32.803	369.75	.000**
Residual	25.618	288	0.089		
Total	58.421	289			

As detailed in Table 19, the unstandardized regression coefficient (B) for BE was 0.730, with a standard error of 0.038, and a t-value of 19.225, statistically significant at $p<.001$. The standardized beta coefficient (β) was 0.749, indicating a strong and positive relationship between BE and CE.

Table 19. Coefficients values.

Predictor	B	Std. error	β	t	Sig.
Constant	0.058	0.101	—	0.577	0.564
BE	0.73	0.038	0.749	19.225	.000**

The results provide compelling empirical evidence that BE is a significant and positive predictor of CE in D2C settings. As BE strengthens characterized by greater trust, recognition, loyalty, and differentiation customers are more likely to interact with, advocate for, and stay emotionally connected to the brand. This aligns with prior branding literature (e.g., Keller, 2001; Aaker, 1996), affirming

that BE not only drives financial outcomes but also enhances relational and behavioral engagement. In the digital economy, where consumer attention is fragmented and loyalty is difficult to retain, building equity is an essential lever for sustaining deep customer relationships and driving engagement across channels. For Indian D2C startups, these findings reinforce the importance of brand-building investments not merely as a reputation asset, but as a driver of measurable engagement outcomes such as social media participation, website revisits, repeat purchases, and brand referrals.

DISCUSSION

The present study empirically examined five key relationships within the context of digital brand-building among Indian D2C startups. The results revealed that all proposed hypotheses were statistically significant, offering strong support for the conceptual model. DMS emerged as a powerful predictor of BE, indicating that well-executed digital outreach, including SEO, social media, and personalized campaigns, significantly enhances consumers' brand perceptions. Similarly, CEM practices such as service responsiveness, intuitive digital interfaces, and customer-friendly policies were shown to positively influence BE, reinforcing the importance of experiential design in digital settings. TA was found to significantly predict CE, suggesting that investment in CRM tools, marketing automation, and data analytics strengthens customer interaction and retention. Moreover, strategic challenges were found to moderate the relationship between digital marketing strategies and BE, such that the positive impact of digital strategies was amplified under higher levels of organizational constraint. Lastly, BE was a strong predictor of CE, confirming that brand trust and recognition play a vital role in driving repeat interactions and advocacy behaviors. No non-significant results were observed, underscoring the reliability and internal consistency of the measurement model.

The findings align closely with and extend prior literature in digital branding and startup marketing. The relationship between digital marketing and BE echoes foundational models by Keller (2001) and Aaker (1996), as well as more recent work by Bruhn et al. (2012), which emphasize the importance of digital touchpoints in shaping brand image and loyalty. The role of customer experience resonates with Lemon and Verhoef's (2016) view that value creation increasingly depends on orchestrating seamless

digital journeys. The relationship between TA and CE parallels insights from Verhoef et al. (2021), who assert that digital transformation tools enhance relational depth in marketing. Notably, the finding that strategic challenges positively moderate the DMS–BE relationship adds a novel dimension to contingency theory (Donaldson, 2001), suggesting that resource constraints may not weaken but rather intensify the effectiveness of digital strategies. The significant link between BE and engagement affirms prior assertions (e.g., Hollebeek et al., 2014) that strong brand value is a precursor to sustained customer interaction and emotional connection.

This study offers several theoretical contributions. First, it integrates digital marketing, TA, and customer experience into a unified model of digital brand-building, expanding the analytical lens typically applied to early-stage firms. Second, it extends the Customer-Based Brand Equity (CBBE) framework by positioning digital strategy and experience design as integral drivers of brand value, thus adapting the model to the realities of digitally native firms. Third, the identification of strategic challenges as a moderating factor contributes a contingency perspective to digital branding literature,suggesting that context-sensitive adaptations particularly in resource-constrained settings are critical to success. Lastly, the study enriches entrepreneurial marketing theory by empirically validating that branding in startups is not merely promotional but a strategically orchestrated function influenced by environmental variables.

For practitioners, the findings carry several practical implications. Startup founders are encouraged to treat digital marketing not as a cost center but as a strategic asset, especially under conditions of uncertainty and constraint. Marketing professionals should focus on aligning brand messaging with superior customer experience delivery and should leverage CRM, AI, and data analytics to personalize and optimize engagement. Technology investments must be prioritized as core enablers of marketing and brand-building efficiency. For policymakers and startup ecosystem enablers, the results suggest a need to support digital infrastructure and skills training, enabling startups to fully leverage digital channels to build BE and engage customers. Tailored policy interventions, such as digital branding subsidies or innovation vouchers, may empower resource-limited startups to scale their market presence and customer base effectively.

CONCLUSION

This study examined the strategic drivers of brand-building in the Indian D2C startup ecosystem, with a focus on the influence of digital marketing strategies, CEM, TA, and contextual challenges on BE and CE. The findings demonstrated that digital marketing and customer experience practices significantly enhance BE, while TA drives higher levels of CE. Furthermore, BE itself emerged as a strong predictor of engagement, reinforcing the link between brand value and customer behavior. Notably, the study identified a significant moderating effect of strategic challenges, indicating that in the presence of greater resource constraints and environmental obstacles, the impact of digital marketing strategies on BE is amplified. These insights contribute meaningfully to both branding and entrepreneurial marketing literature by integrating a multidimensional model grounded in the realities of digital-first, resource-constrained firms. The research makes several contributions. Theoretically, it advances the application of the CBBE framework in the D2C startup context, expands the role of digital and experiential dimensions in equity formation, and introduces strategic challenges as a moderator within branding models offering a nuanced contingency-based perspective. Practically, the study provides actionable insights for startup founders, marketing practitioners, and ecosystem enablers, highlighting the strategic utility of digital branding investments even under environmental and resource constraints. Despite its contributions, the study is not without limitations. The cross-sectional design restricts causal inferences, and the data was collected solely from Indian D2C startups, which may limit generalizability to other cultural or economic contexts. In addition, the reliance on self-reported data may be subject to social desirability and response biases. Future research should consider longitudinal designs to assess causality and examine how BE and engagement evolve over time. Comparative studies across regions or industries could offer a broader understanding of D2C brand dynamics. Further, the inclusion of mediating variables such as trust, satisfaction, or perceived value could enrich the explanatory power of the model. Expanding the framework to include performance outcomes (e.g., sales growth, retention rates) would also offer a more comprehensive understanding of the strategic value of BE in digital-first enterprises

REFERENCES

[1] Aaker, D. A. (1996). *Building strong brands.* Free Press.

[2] Bain & Company. (2023). *How India shops online 2023.* Bain & Company India Report.

[3] Brodie, R. J., Hollebeek, L. D., Juric, B., & Ilić, A. (2013). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research, 14*(3), 252–271. https://doi.org/10.1177/1094670511411703

[4] Bruhn, M., Schoenmueller, V., & Schäfer, D. B. (2012). Are social media replacing traditional media in terms of brand equity creation? *Management Research Review, 35*(9), 770–790. https://doi.org/10.1108/01409171211255948

[5] Chaudhary, S. (2023). *The rise of India's D2C revolution.* Mint Research Insights.

[6] Chatterjee, S., & Sharma, R. (2022). Digital storytelling and consumer co-creation: Insights from emerging markets. *Journal of Retail and Consumer Services, 68,* 103072.

https://doi.org/10.1016/j.jretconser.2022.103072

[7] Chen, W. K., Nalluri, V., Lin, M. L., & Lin, C. T. (2021). Identifying decisive socio-political sustainability barriers in the supply chain of banking sector in India: Causality analysis using ISM and MICMAC. Mathematics, 9(3), 240.

[8] Deloitte. (2024). *Digital consumer trends in India: 2024 Outlook.* Deloitte Insights Report.

[9] Dev, S., Gupta, M., Dharmavaram, S., & Kumar, R. (2024). Unified Payments Interface and consumer spending patterns in India. *Asian Economic Review, 45*(2), 78–92.

[10] Donaldson, L. (2001). *The contingency theory of organizations.* Sage Publications.

[11] FICCI. (2024). *Startup pulse report: India's D2C growth story.* Federation of Indian Chambers of Commerce and Industry (FICCI).

[12] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Education.|

[13] Hollebeek, L. D., Srivastava, R. K., & Chen, T. (2019). SD logic-informed customer engagement: Integrative framework, revised fundamental propositions, and application to CRM. *Journal of the Academy of Marketing Science, 47*(1), 161–185. https://doi.org/10.1007/s11747-016-0485-2

[14] IBEF. (2024). *Direct-to-Consumer (D2C) market in India.* India Brand Equity Foundation.

[15] Iglesias, O., Ind, N., & Markovic, S. (2017). Co-creation: A key link between corporate social responsibility, customer trust, and customer loyalty. *Journal of Business Ethics, 140*(1), 89–100. https://doi.org/10.1007/s10551-015-2707-2

[16] Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31 –36. https://doi.org/10.1007/BF02291575

[17] Keller, K. L. (2001). Building customer-based brand equity: A blueprint for creating strong brands. *Marketing Science Institute Working Paper,* 01–107.

[18] Keller, K. L. (2003). *Strategic brand management: Building, measuring, and managing brand equity* (2nd ed.). Prentice Hall.

[19] Kumar, A., & Jain, R. (2023). Agility and customer centricity in Indian D2C brands. *Asian Journal of Management Research, 14*(2), 45–58.

[20] Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing, 80*(6), 69–96. https://doi.org/10.1509/jm.15.0420

[21] Mehta, P., & Sridhar, K. (2022). *Policy enablers of India's startup ecosystem.* *NITI Aayog Working Paper No. 54.*

[22] Mordor Intelligence. (2025). *India Direct-to-Consumer (D2C) Market Report 2025–2030.*

[23] Nalluri, V., Mayopu, R. G., & Chen, L. S. (2024). Modeling the key attributes for improving customer repurchase rates through mobile advertisements using a Fuzzy mixed approach. Journal of Modelling in Management, 19(1), 145-168.

[24] Nalluri, V., Huynh-Cam, T., Sama, H., & Chen, L. (2023). Decision-making model for the effective e-services adoption in the Indian educational organizations. Decision Science Letters, 12(2), 211-224.

[25] Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.

[26] PwC India. (2023). *E-commerce and D2C convergence in India.* PricewaterhouseCoopers India Report.

[27] RedSeer Consulting. (2023). *Indian D2C brands 2023: Scaling for the next decade.* RedSeer Strategy Report.

[28] Ukey, R., & Lalchandani, D. (2025). Emerging growth models of Indian D2C brands. *International Journal of Retail Marketing, 12*(1), 1–15.

[29] Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research, 122,* 889–901. https://doi.org/10.1016/j.jbusres.2019.09.022

[30] Westland, J. C. (2010). Lower bounds on sample size in structural equation modeling. *Electronic Commerce Research and Applications, 9*(6), 476–487. https://doi.org/10.1016/j.elerap.2010.07.003

[31] Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research, 52*(1), 1–14. https://doi.org/10.1016/S0148-2963(99)00098-3.