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Brand loyalty in FinTech services: The role of self-concept, customer engagement behavior and self-brand connection

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ABSTRACT

The concurrent effects of customer predispositions, customer engagement behaviour (CEB) and self-brand connections (SBC) on loyalty are less understood. This article will examine how relationship quality and consumer predispositions (self-concept, brand communal focus) affect loyalty, with customer engagement behaviour and self-brand connection acting as mediating factors. A cross-sectional survey with a quantitative study design was used to gather information from 380 users of FinTech apps in the Indian state of Karnataka. The main findings indicate that self-concept does not generate loyalty by itself but rather fosters loyalty through the mediation of SBC and CEBs. Similarly, a trusted and satisfied customer remains brand loyal. A sense of communal focus among consumers results in self-brand connections only if they are positively engaged with the brand. Customer interactions and engagement in social media can have a significant impact on the development of digital self-brand relationships. Contrary to the literature, we found that positive engagement fosters loyalty only if it leads to brand connection. Repeat patronage and willingness to buy new products or price insensitivity depend on strong emotional brand connections and CEBs. Hence, FinTech companies should match their experiences, offerings, and brand messages to the way that consumers view themselves. To engage customers in new ways and establish a connection with them, they should also offer stimulating and compelling virtual experiences on their platforms. Therefore, FinTech consumers can maintain brand loyalty through self-brand connections and brand engagement through self-concepts.

Introduction

FinTech payments make up more than 65% of the payment ecosystem, and India has a far greater acceptance rate of 87% of FinTech than any other country in the world (Ernst and Young, 2017; InvestIndia, 2021). In the technology-intensive and virtual FinTech industry, consumers can easily compare competitors' offerings and switch quickly with one-click. Gen Z and Y make up the majority of FinTech consumers in India; they have shorter attention spans but are more tech-savvy and expect personalized services and attractive offers. These customer groups are more likely to switch for better offers and service. Sixty-six percent of customers are willing to switch if brands treat them like numbers instead of unique individuals. They expect FinTech companies

to ensure data privacy, transparency, and security and to engage with trustworthy partners (Salesforce, 2022).

Open banking initiatives, decreased switching costs, cloud-based software platforms, and the elimination of fixed expenses have opened the industry to new entrants and cross-market companies who may poach customer segments from established firms. Technology does not, therefore, serve as a differentiator; rather, relationship management can ring-fence these consumers. However, the advantage that incumbent firms have over new competitors diminishes when the latter can easily target a customer without having any prior relationships. Some of the new entrants are from the telecom or banking industry and are seen as highly reliable by their vast clientele (Kaabachi et al., 2019). Brand visibility drives loyalty in a highly disruptive and innovation-oriented

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but under penetrant fintech industry, especially when competition has equal access to data and open technology infrastructure (Mikhaylov et al., 2023).

Strong interpersonal ties formed by digital branding techniques and consumer engagement can be major factors in increasing loyalty (Brodie et al., 2011; Monferrer et al., 2019; Flavián et al., 2019). Oliver (1999) asserts that brand loyalty is the primary measure of the stability of a customer relationship; for this reason, understanding its antecedents is essential. Consumer trust (Kosiba et al., 2018), self-brand connections (SBC) (Hollebeek, 2011, 2017a; Islam et al., 2018; Harrigan et al., 2017; Escalas, 2004; Escalas and J.R. Bettman., 2003) and customer engagement behaviours (CEBs) safeguard the company against the wrenching of customers by competitors. Another closely linked aspect is brand engagement in self-concept (Spratt et al., 2009), which explains the preference for brands that are identical to one's own self-image (Sirgy, 1982). Furthermore, when customers aid other customers by addressing problems or making helpful suggestions, communal involvement influences cocreative behaviours. The relationships among self-concept, communal focus and brand loyalty have not been explored in the FinTech context. Questions arise as to whether firms can improve brand loyalty by connecting with consumers through self-concepts, communal focus, and trust. Additionally, does building CEBs and self-brand relationships improve brand loyalty?

CEB represents an interpersonal interaction between the company and consumers that acts as a long-term customer retention strategy (Islam et al., 2018). Gaining a competitive edge requires fostering excellent customer management of relationships through self-assured and positively engaged customers (Pansari and Kumar, 2017; Bhat and Darzi, 2016; Glavee-Geo et al., 2019). CEBs for financial services provided in innovation-intensive virtual environments, such as FinTech, are different from those for financial services provided in offline settings, which do not need micro touch points (Gomber et al., 2018). Since online FinTech services lack the advantages of offline settings, the development of CEBs is challenging. The form/modality component of CEBs measures customer expression types based on the time and money spent and in-role and elective behaviors. The scope of engagement includes providing reviews and suggestions on their product experiences to the company and helping to improve or develop new products based on customer needs (van Doorn et al., 2010; Kumar and Pansari, 2016). Customers' choice of a channel reflects their preference for communicating via phone, face-to-face, or email or website communication (van Doorn et al., 2010). Customer influence on social media deals with exchanging views, sentiments, and opinions on product features, services, and value.

Customers' positive and active engagement with the company's brands in this situation can lead to the development of SBC, a social dimension of CEB (Wallace et al., 2014; Moliner et al., 2018). It is formed when a customer visualizes the brand's symbolic elements to create an image or a concept of the self (Spratt et al., 2009). Consumer predispositions such as self-concepts and communal focus play an important role in shaping CEBs and SBC. A customer's sense of community could aid them in engaging with the brand in various unique ways (Kaur et al., 2020; van Doorn et al., 2010). Additionally, brands create an identity for a consumer and communicate self-expressive messages conveying consumers' self-concepts (Escalas and Bettman., 2005). Despite having social networks and opinion platforms, most customers are information seekers or lurkers who have taken a more passive stance while contributing to online conversations (Minazzi, 2015). Unless customers' self-concepts match brand images, they refrain from voicing their opinions (Kressmann et al., 2006). The importance of trust and trustworthiness has gained focus as FinTech companies need to build a secure space for contactless transactions, which is still relevant against rising competition. Customers engage in social media interactions only if they trust the company (Kosiba et al., 2018; Palmatier et al., 2006). When a brand surpasses expectations, the postpurchase consequence is satisfaction, which helps to build lasting relationships

with customers. Thus, it is essential to know whether self-concepts, community focus and trust and satisfaction can assist in creating CEBs and SBCs and whether they can further result in customer loyalty in the innovative FinTech industry. Research related to these behaviours is essential for companies to design robust classification and segmentation frameworks (van Doorn et al., 2010).

Several studies have tried to explicate the psychological and behavioural antecedents of loyalty in the innovative FinTech industry. Very few studies have addressed the role of self-concept and communal focus in facilitating customer engagement and SBC and its impact on loyalty. The behavioral components of CEB have been the subject of several studies (Masłowska et al., 2016; Dessart et al., 2016), but not the psychological elements (Hollebeek et al., 2016; Morrongiello et al., 2017). Several studies have applied self-congruent theory in different contexts (Sop and Kozak, 2019; Chen et al., 2020) to understand the relationships among CEBs, brand connections, and brand loyalty. Thus, the goal of this quantitative research study is to assess the direct and indirect effects of self-concept, communal focus, and trust and satisfaction (relationship quality) on brand loyalty, with CEB and SBC serving as the mediators.

The novelty of this paper is the operationalization of CEB as a four-dimensional formative second-order construct, namely, social media influence, form/modality, scope, and channel of engagement, and we validate it by using a variance-based method. The findings of the study can guide FinTech firms to become customer-centric and develop technological processes and policies centred on connecting their self-expression and social affirmation needs with those of brand image. Gen Z controls the brand narrative and is loyal to companies that ensure cybersecurity and deliver exceptional customer service. Robust systems and consumer-centric and intelligence-driven engagement marketing are essential for companies to connect with them.

Theoretical framework

According to *self-congruity theory*, the relationship between a consumer's self-concept and a product or brand personality explains why and how individuals acquire goods and services (Sirgy, 1985; Hosany and Martin, 2012). This theory provides a psychological perspective for SBC (Liu et al., 2018; Razmus et al., 2017). According to the theory, self-concept is a multifaceted notion grounded in individual perceptions related to self and includes self-ideation, the social self, and the ideal social concept (Sirgy, 1982, 2018). When choosing products or services, consumers consider intangible elements that may connect the product's image to their own perception of themselves (Escalas and Bettman, 2003; Aguirre-Rodriguez et al., 2012). Consumers will therefore choose products or services based mostly on how closely a brand aligns with their own self-concept.

According to *commitment-trust theory* by Morgan and S.D. Hunt (1994), trust, as the main relationship-quality element, is the key to cooperative behaviours by reducing risk perception in high-risk FinTech transactions. According to *social exchange theory* (SET), customers display positive thoughts, feelings and behaviours toward a product or brand in reciprocation to specific benefits from the brand. These interactive activities correspond to engagement behavior (Hollebeek, 2011). The matching of self-concepts with brand image provides psychological benefits that outweigh pecuniary resources or costs. In continuation with this notion, Service-Dominant (SD) logic states that a customer perceives what he or she gives as a cost and what he or she receives from the seller as a benefit or a reward. All value exchanged in the market is service-based and involves various actors (Vargo and Lusch, 2004; Brodie et al., 2011). The present study builds on existing work on CEBs that states that SBC is a consequence of CEB, and that customer involvement is an affective determinant of CEBs (Brodie et al., 2011, Hollebeek et al., 2014, 2016, 2017; Vivek et al., 2014; Dwivedi., 2015; Harrigan et al., 2017). These theories explain the formation of behaviours (CEBs, loyalty, self-brand connection) influenced by certain beliefs

and attitudes (trust and self-concept).

Hypothesis development

Customer self-brand connection refers to the degree to which people integrate brands into their self-concept (Escalas, 2004; Escalas and Bettman, 2005, 2009). The emotional and SBC aspects of brand engagement are highlighted by Sprrott et al. (2009), who describe brand engagement as consumers' inclination to integrate major brands as part of how they consider themselves. In this light, SBC explains the social aspects of CEBs (Wallace et al., 2014; Moliner et al., 2018). Customers' positive and active engagement with a company's brand can lead to the development of a self-brand connection. As evidenced from Indian studies, celebrity endorsements influence self-brand connections of endorsed brands in niche consumer segments (Dwivedi., 2015). Self-brand connection is also used as a mediator in a few Indian studies (Parmar and Mann, 2021). CEB is a multifaceted concept that includes interactive, immersive, and social aspects (Gambetti et al., 2012; Brodie et al., 2011). According to self-congruity theory, positive attitudes about a brand are a result of a strong connection built around the integration of self-concepts into brand image (Aguirre-Rodriguez et al., 2012). Through SBCs, customers deepen their relationships with companies that support their self-concepts and provide them with a sense of security. Strong consumer-product alignment leads to positive attitudes toward the brand and increases loyalty (Elbedweighy et al., 2016; van der, 2018; Ferraro et al., 2013; Belanche et al., 2021). A reference group or influencer's symbolic attributes are first associated with the brands they use or promote. These symbolic meanings are then passed on to customers as they choose brands that correspond to their self-concept. This inclusion satisfies the psychological needs for self-expression and self-affirmation, as well as enhances confidence and uniqueness (Roy and Rabbane, 2015). Thus, loyalty develops when a brand fulfills psychological requirements and provides a feeling of identity for its consumers (Pansari and Kumar, 2017). A strong self-brand connection is protected by consumers being loyal to the brand since it represents themselves (Cheng et al., 2012).

- H1. : SBC mediates the relationship between CEB and brand loyalty.
 H2. : SBC mediates the relationship between self-concept and loyalty.
 H3. : SBC mediates the relationship between brand communal focus and loyalty.

Customer engagement behaviour refers to non-transactional behaviours that are focused on a company or brand (van Doorn et al. 2010). Consumers who are brand-engaged are more likely to have favourable attitudes and beliefs about the brand, leading to loyalty (Cvijikj and Michahelles, 2013; Dwivedi., 2015; Hollebeek, 2011b; Kosiba et al. 2018; Moliner et al. 2018; Parihar et al. 2019; Monferrer et al. 2019). CEBs promote the development of favourable attitudes and higher brand usage (Harmeling et al. 2017). Moreover, CEBs are dependent on the degree of consumer-brand interaction, which is shaped by consumers' self-concepts (Hollebeek, 2011b). Since CEB uses interactive and cocreative processes, engaged customers are more connected to companies and demonstrate behavioral and attitudinal loyalty (Brodie et al. 2011). Thus, customers' CEB positively shapes their SBC (Moliner et al. 2018; Harrigan et al. 2018; Vivek et al. 2014; Moisescu et al. 2022).

Consumer predispositions include self-concepts and communal focus. When consumers buy brands, whose image is congruent with their **self-concept** (Sirgy, 1982; Japutra et al. 2017; Tan et al. 2019), the consequent positive attitude drives loyalty (Malär et al. 2011; Aguirre-Rodriguez et al. 2012; Yusof and Ariffin, 2016; Lee and Jeong, 2014; Islam et al. 2018; Wu et al. 2020). Individuals present themselves online in a way that influences their own self-concept through digital activities that remind others that they exist as members of a connected brand network (Carter and Grover, 2015; Belk, 2016; Dwivedi., 2015). When customers perceive a brand as an extension of themselves, they

are more likely to interact with it to share their identities with others (Sprrott et al. 2009; Islam et al. 2018; Wu et al. 2020). A self-brand connection is developed when the symbolic features associated with brands represent self-concept or are used to communicate self-concept to others (Escalas and Bettman, 2009; Sprrott et al. 2009). This positive self-concept influences positive engagement behavior and enduring relationships represented in SBC, CEB and loyalty (Hollebeek, 2011b; Hennig-Thurau et al. 2004; van Doorn et al. 2010; Aguirre-Rodriguez et al. 2012; Yusof and Ariffin, 2016).

Another construct that measures consumer predisposition is **communal focus**. Customers can enhance their sense of self by associating with particular social circles, such as brand communities (Lam et al. 2010). A sense of belonging to the brand's community results in identification with the brand (Lin et al. 2014). When individuals feel a sense of belonging to a brand community, they are more likely to express those feelings to other group members, although exchanges take place online (Hollebeek 2011a, 2011b). People who identify with a community exhibit strong feelings of belonging, emotional connections, and active participation in brand-community discussions, which make them brand loyal (Füller et al. 2008; Tsai and Men, 2017; Islam and Rahman, 2018; Dalvand et al. 2019; Kaur et al. 2020). Consumers are more likely to spread positive word-of-mouth and stay loyal to a brand when they have a better brand community experience and communal focus (Kumar et al. 2010; Hur et al. 2011).

Trust is described as the belief and faith that a consumer holds in the firm to act ethically and create exchange relationships that are highly valued (Morgan and S.D. Hunt. 1994; Sasforce, 2023). It is measured by integrity, benevolence and ability to keep promises. Customers will engage in social interactions if they trust the company; thus, this interaction is a potential antecedent of CEB (Pansari and Kumar, 2017; Roy et al. 2018; Kosiba et al. 2018). Thus, trust facilitates a strong customer-firm bond displayed by engagement behaviour (Bowden, 2009; Levy and Hino, 2016; Brodie et al. 2011; Hollebeek, 2011b). The presence of e-trust eases perceived risk, thus increasing the intention to consume online financial services (Ladhari et al. 2013; Islam and Rahman, 2018). As CEB is a challenging and slow process for a credence product such as FinTech, customers will engage in social interactions if they trust the company (Kharouf et al., 2014; Kosiba et al. 2018). Studies show that customer engagement acts as a mediator in the relationship between trust and loyalty in the financial services industry (Hoang, 2019; 2016).

Few authors have found **satisfaction** to be an antecedent of CEB (Kumar et al. 2013; van Doorn et al. 2010; Cambra et al. 2016; Pansari and Kumar, 2017; Kuenzel and Halliday, 2008; Hollebeek, 2011b). De Matos and Rossi (2008) and Palmatier et al. (2006) indicated that greater satisfaction positively influences brand loyalty, which occurs when contented customers form a bond with the company and stay loyal (Oliver, 1999; Molinillo et al. 2020). Customers engage in social media interactions only if they trust the company and are also satisfied with the products (Kosiba et al. 2018; Palmatier et al. 2006; Molinillo et al. 2020).

Based on the above discussion, we formulate the following hypotheses.

- H4. : CEB mediates the relationship between self-concept and loyalty.
 H5. : CEB mediates the relationship between brand communal focus and loyalty.
 H6. : CEB mediates the relationship between trust and brand loyalty.
 H7. : CEB mediates the relationship between satisfaction and brand loyalty.

The present study builds on the significant body of work on CEB and extends it by incorporating relationship quality (trust and satisfaction) and customer predispositions (self-concept and communal focus) as antecedents to CEB, SBC, and loyalty (Fig. 1).

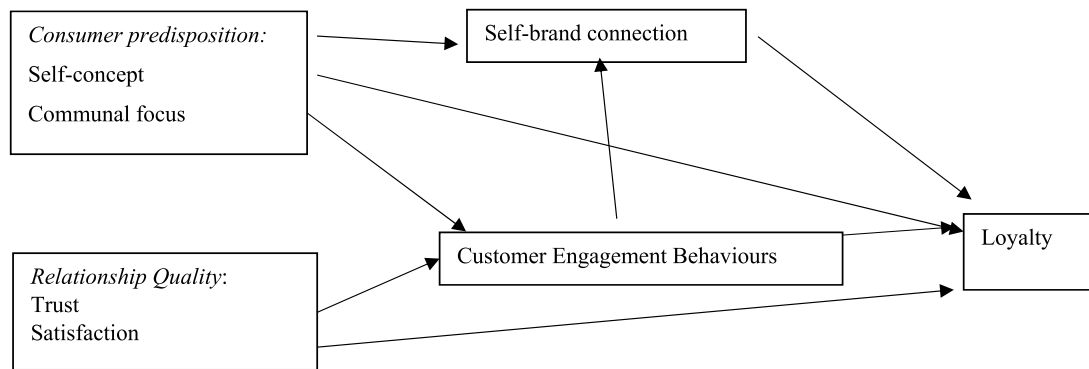


Fig. 1. Conceptual Model.
Source: Author's own model.

Materials and methods

Research design

A cross-sectional survey was carried out utilizing a quantitative study design and the snowball sampling technique. An initial sample of Fin-Tech app customers who subsequently referred their clients and acquaintances was chosen, thus creating a snowball effect. A 5-point Likert scale was used in the survey to capture self-concept (Thakur, 2016; Levy and Hino, 2016), communal focus (Hennig-Thurau et al. 2004), relationship quality (Han et al. 2019), customer engagement behaviors (Hoang, 2019; van Doorn et al. 2010; Moliner et al. 2018), loyalty (Thakur, 2016; Hoang, 2019) and self-brand connection (Escalas, 2004; Harrigan et al. 2018; Kumar and Pansari, 2016; Moliner et al. 2018).

The guidelines framed by Hair et al. (2017) and Henseler et al. (2016) on structural equation modelling were used for model assessment. SmartPLS 3.0 was chosen since it can handle complex and heterogeneous interrelationships simultaneously, including CEB as a hierarchical component model. Additionally, compared to other structural equation modelling techniques, this approach can attain adequate power levels even with small sample sizes. Exploratory factor analysis was conducted on the data using the software IBM SPSS 26.0 to check the factor components to better understand the components of CEB as a second-order construct. Accordingly, CEB, as a formative second-order construct that adopts the disjoint two-stage technique, was used to validate the higher-order model of CEB.

Sampling design

In India, the state of Karnataka has a higher digital payment adoption rate of 26.64%, including digital payments, personal finance and remittance services, which were roughly estimated to be 30% (RazorPay report, 2020), and is one of the states with a higher financial inclusion index (CRISIL Inclusix, 2018). Hence, we chose Karnataka for the study. The tentative sample size was calculated to be 382 customers (margin of error of 5% and a confidence level of 95%), and 15% was further added to accommodate nonresponse errors; thus, the final target sample was 440. After the data were cleaned, 380 responses were used for further analysis. The survey was conducted from October 2020 to March 2021, and the questionnaire was administered both digitally and in person.

The participants were recruited using a snowball sampling approach; however, this approach originally required them to be residents of Karnataka and users of any of the financial apps. In Karnataka, 18 districts had financial index between 80 and 100, of which 10 were chosen randomly. Fintech managers and a few business owners in these districts were also asked for contact information about their customers, and a message (via WhatsApp) was sent to these customers to solicit their consent to participate in the survey. After they gave their consent, the link to the online survey was shared with them, and they were asked to recommend any of their contacts who had utilized FinTech apps. This

process was repeated until the target sample size of 440 was reached.

Results

Profile of the respondents

The app customer data from the sample population revealed that 46% were Google Pay users, 17% were PhonePe and PayTM users, and the remaining 37% were Yono (SBI), Imobile (ICICI), AmazonPay, BHIM, Bankbazaar, and Policybara users. The majority of the users in the sample were male, accounting for approximately 55% of the total population. Approximately half of the sample were aged between 25 and 40 years, 31% were aged younger than 25 years, 18% were aged 41–60 years, and only 2% were aged older than 60 years. The sample's annual income ranged from \$1 to \$12,022 (1 US \$ = Rs. 83.18 on 26 December 2023). Almost half of the sample respondents (57%) have completed postgraduate education.

Measurement model

First, the lower-order constructs were considered, and the construct reliability and validity were assessed (refer to Table 1). Indicator reliability for each construct was calculated by squaring the outer loadings of the reflective constructs. Here, the indicator reliability for each construct was 0.70 or higher and was found to be acceptable. The composite reliability values were greater than 0.8, which signifies high reliability, as the acceptable level is 0.7 (Hair et al. 2017). Because the average variance extracted (AVE) was more than 0.5, convergent validity was judged to be acceptable (Hair et al. 2017). The heterotrait–monotrait (HTMT) ratio was used to test discriminant validity (Henseler et al. 2016), with values less than 0.9. The multicollinearity of each construct was examined, and VIF values were found to be less than 5.

Before executing stage two, the latent scores of the four lower-order CEB constructs were added to the dataset. The bootstrapping approach was used to validate the measurement model of the formative higher-order construct CEB. The significance of the differences in outer weights was tested. The outer weights of the CSMI and channel were low at 0.5. Therefore, the outer loading was checked, and the results were found to be more than the acceptable level of 0.5 and significant.

Structural model assessment

The structural model was evaluated using coefficient of determination (R-squared) as the primary criterion (Henseler et al. 2016). The strong R^2 value of 0.404 for CEB indicates that the antecedents, self-concept, trust, and satisfaction account for approximately 40.4% of the variance in CEB. A high R^2 coefficient of 0.460 for loyalty and 0.343 for self-brand connection proves that the model's predictive validity is strong.

Table 1
Construct Reliability, Validity & Multi-Collinearity.

| Customer Loyalty CA=0.885; CR=0.912; AVE=0.603 | OL |
|---|-----------|
| CL_1: I will continue using the same FinTech app in the future. | 0.838 |
| CL_2: I have no intention to switch over to other apps because I value the present one. | 0.813 |
| CL_3: I prefer this app over other apps. | 0.860 |
| CL_4: I will prefer new services if offered by my app. | 0.820 |
| CL_5: Shortly, I intend to use more of the services offered by the company. | 0.842 |
| CL_6: If my current service raises the price of the services, I would continue to be an app customer. | 0.583 |
| CL_7: If a competing app offers a better price on their services, I would switch. | 0.626 |
| Self-brand connection CA=0.954; CR=0.962; AVE=0.786 | OL |
| SBC_1: I am a part of this brand and mention it in my conversations. | 0.814 |
| SBC_2: My app reflects who I am. | 0.881 |
| SBC_3: I can identify with my app. | 0.928 |
| SBC_4: I feel a personal connection with my app. | 0.918 |
| SBC_5: My app matches my personality. | 0.901 |
| SBC_6: I think this app (could) help(s) me become the type of person I want to be. | 0.890 |
| SBC_7: I consider this app to be me; reflects who I consider myself to be or the way. | 0.867 |
| CEB CSMI: Customers' Social Media Influence CA=0.891; CR=0.925; AVE=0.754; VIF=2.382 | OL |
| CEB1: I feel an emotional link with my app/company. | 0.840 |
| CEB 2: I actively discuss this app with other customers on social media. | 0.891 |
| CEB 3: I seek advice from other customers on how to solve the problems. | 0.856 |
| CEB 4: I love talking about the benefits and positive app experiences with other customers on social media. | 0.885 |
| CEB FM Form/Modality CA=0.894; CR=0.923; AVE=0.705; VIF=2.585 | OL |
| CEB 5: I would organize a public action against the firm in the case of a dispute. | 0.824 |
| CEB 6: I tend to spend time blogging to express my experiences. | 0.768 |
| CEB 7: I actively participate in charity events organized by the firm, thus donating both money and time. | 0.884 |
| CEB 8: I generally donate through charity events but do not have the time to participate in them. | 0.886 |
| CEB 9: I tend to complain about the app/firm on social media or website forums. | 0.834 |
| CEB Choice of Channel CA=0.867; CR=0.900; AVE=0.602; VIF=1.350 | OL |
| CEB 10: with other customers in-person customer to customer | 0.752 |
| CEB 11: with other customers via the Internet (social media or website). | 0.786 |
| CEB 12: with other customers via phone, mail, or e-mail. | 0.836 |
| CEB 13: with company in-person customer to the firm. | 0.746 |
| CEB 14: with the company via the Internet (social media or website). | 0.790 |
| CEB 15: with the company via phone, mail, or e-mail. | 0.740 |
| CEB Scope CA=0.926; CR=0.947; AVE=0.819; VIF=2.796 | OL |
| CEB 16: My product-related expressions and actions help my company. | 0.845 |
| CEB 17: I provide feedback about my experiences with the app to the firm. | 0.918 |
| CEB 18: I provide suggestions for improving the performance of the app. | 0.941 |
| CEB 19: I provide feedback/suggestions for developing new service offerings for my app. | 0.914 |
| Self-brand connection CA=0.954; CR=0.963; AVE=0.786 | OL |
| SBC_1: I am a part of this brand and mention it in my conversations | 0.875 |
| SBC_2: My app reflects who I am | 0.928 |
| SBC_3: I can identify with my app | 0.921 |
| SBC_4: I feel a personal connection with my app | 0.904 |
| SBC_5: My app matches my personality | 0.895 |
| SBC_6: I think this app (could) help(s) me become the type of person I want to be | 0.871 |
| SBC_7: I consider this app to be me; reflects who I consider myself to be or the way | 0.808 |
| Self-concept CA=0.879; CR=0.912; AVE=0.674 | OL |
| SC_1: I identify with what my company or app stands for. | 0.799 |
| SC_2: I feel a sense of belonging to my company. | 0.845 |
| SC_3: I bring up things I have seen on this app in conversations with other people. | 0.781 |
| SC_4: When I talk about this brand, I usually say we rather than they. | 0.846 |
| SC_5: This brand's successes are my successes. | 0.831 |
| Communal Focus CA=0.828; CR=0.897; AVE=0.745 | OL |
| CF_1: I am going to speak up when the other fans of your brand community might be going to face a harmful situation | 0.862 |
| CF_2: I complain when my brand community members see a harmful situation coming | 0.905 |
| CF_3: I engage in a negative WOM when we are going to face a hurtful situation | 0.820 |

Table 1 (continued)

| Customer Loyalty CA=0.885; CR=0.912; AVE=0.603 | OL |
|--|-----------|
| RQ-Trust CA=0.912; CR=0.938; AVE=0.792 | OL |
| RQT_1: Overall, I have complete trust in this company. | 0.866 |
| RQT_2: This app keeps its promise. | 0.896 |
| RQT_3: I trust that the FinTech app is safe with the required privacy/security features. | 0.917 |
| RQT_4: I trust the transactions done by my FinTech app. | 0.879 |
| RQ-Satisfaction CA=0.952; CR=0.963; AVE=0.838 | OL |
| RQS_1: I feel satisfied with using the online FinTech application as it meets my needs. | 0.912 |
| RQS_2: It promptly covers my expectations. | 0.919 |
| RQS_3: It promptly covers my expectations. | 0.921 |
| RQS_4: I am happy and contented with the quality of service provided. | 0.913 |
| RQS_5: It is a wise choice to choose this application. | 0.912 |

CA: Cronbach's alpha; CR: composite reliability; AVE: average variance extracted; OL: outer loadings (standardized);

CEB: customer engagement behavior; RQ: relationship quality.

Source: Primary Survey.

Model fit

The indices of model fit were examined. A SRMR value of 0.06 is less than 0.10 or 0.08 and is regarded as a good fit, and a normed fit index (NFI) of 0.852 represents an acceptable fit. The direct and indirect effects of various constructs were analysed. The path coefficient, t statistics, p value, f^2 (effect size), and whether hypotheses on different paths are supported are outlined in Table II.

Direct effects

CEB was influenced by self-concept ($\beta = 0.373$) and communal focus ($\beta = 0.187$) (Table 2). The f^2 values signify the effect sizes of the path. The path self-concept > CEB has a f^2 value of 0.149, suggesting a small effect of self-concept on CEB's R^2 , followed by the path communal focus > CEB ($f^2 = 0.035$), suggesting that there is a small effect on CEB. The path CEB > SBC ($f^2 = 0.178$) suggested a medium effect, and the path self-concept > SBC ($f^2 = 0.038$) indicated a small effect of self-concept, as reflected by the R^2 of SBC. However, SBC ($\beta = 0.188$), satisfaction ($\beta = 0.351$), trust ($\beta = 0.230$), and communal focus ($\beta = 0.143$) are found to have significant effects on customer loyalty, as indicated by the path coefficient (β). Correspondingly, the f^2 values of the paths of satisfaction, SBC, and trust influencing customer loyalty have values of 0.067, 0.042, and 0.028, respectively, validating that they have a small effect on customer loyalty.

CBE followed by self-concept is found to have a significant influence on self-brand connection, as indicated by path coefficients (β) of 0.432 and 0.208, respectively. Similarly, the path CEB > SBC has a f^2 value of 0.178, suggesting a medium effect of CEB on SBC's R^2 , followed by the path self-concept > SBC ($f^2 = 0.038$), suggesting that there is a small effect on SBC. Trust does not influence CEB, as suggested by a p value of 0.230, which is more than 0.05, thus refuting the stated hypothesis (H10).

Indirect effects

Self-concept has a significant indirect effect on SBC and customer loyalty, as indicated by the β values of 0.161 and 0.039, respectively. This finding indicates that CEB partially mediates the relationship between self-concept and self-brand connection, as suggested by the VAF value of 0.774 (77.4%). The relationship between self-concept and loyalty is fully mediated by SBC since the nonsignificant path self-concept > loyalty ($p = 0.671$) becomes significant with the mediation of SBC ($\beta = 0.039$, $p < 0.05$) but not CEB mediation ($p = 0.524$). Similarly, communal focus has an indirect effect on SBC or full mediation by CEB ($\beta = 0.081$, $p < 0.05$). The direct effect of communal focus on SBC is nonsignificant ($p = 0.711$); however, when CEB mediates this relationship, we observe full mediation effects. CEB on loyalty is not significant ($p = 0.504$), but the indirect effect is significant ($\beta = 0.081$, $p < 0.05$), which indicates full mediation of SBC (Table 2).

Table 2
Direct and Indirect Effects and Effect Sizes (f^2).

| Hypothesized path relationships | β | t | p | f^2 | Hypothesis |
|----------------------------------|---------|-------|-------|-------|---------------|
| Direct Effects | | | | | |
| CEB-> Loyalty | -0.045 | 0.669 | 0.504 | 0.002 | Not Supported |
| CEB-> SBC | 0.432 | 7.004 | 0.000 | 0.178 | Supported |
| SBC->Loyalty | 0.188 | 3.118 | 0.002 | 0.042 | Supported |
| Self-concept -> Loyalty | -0.028 | 0.425 | 0.671 | 0.001 | Not Supported |
| Self-concept -> SBC | 0.208 | 3.232 | 0.001 | 0.038 | Supported |
| Self-concept -> CEB | 0.373 | 5.997 | 0.000 | 0.149 | Supported |
| Communal focus-> CEB | 0.187 | 3.037 | 0.002 | 0.035 | Supported |
| Communal focus-> SBC | 0.022 | 0.370 | 0.711 | 0.00 | Not supported |
| Communal focus-> Loyalty | 0.143 | 2.411 | 0.016 | 0.022 | Supported |
| Trust->CEB | 0.091 | 1.201 | 0.230 | 0.004 | Not supported |
| Trust->Loyalty | 0.230 | 2.696 | 0.007 | 0.028 | Supported |
| Satisfaction->CEB | 0.118 | 1.431 | 0.153 | 0.07 | Not supported |
| Satisfaction->Loyalty | 0.351 | 4.304 | 0.000 | 0.067 | Supported |
| Indirect Effects | | | | | |
| H1: CEB>SBC> Loyalty | 0.081 | 2.858 | 0.004 | | Supported |
| Self-concept>CEB>SBC | 0.161 | 4.781 | 0.000 | | Supported |
| H2: Self-concept>SBC>Loyalty | 0.039 | 2.267 | 0.023 | | Supported |
| H3: Self-concept>CEB> Loyalty | -0.017 | 0.637 | 0.524 | | Not supported |
| Self-concept>CEB> SBC>Loyalty | 0.030 | 2.528 | 0.012 | | Supported |
| H4: Communal focus>SBC> Loyalty | 0.004 | 0.350 | 0.727 | | Not supported |
| H5: Communal focus >CEB> Loyalty | -0.008 | 0.643 | 0.520 | | Not supported |
| Communal focus >CEB>SBC | 0.081 | 2.676 | 0.007 | | Supported |
| Trust>CEB> SBC | 0.039 | 1.156 | 0.248 | | Not supported |
| H6: Trust>CEB> Loyalty | -0.004 | 0.474 | 0.636 | | Not supported |
| Satisfaction>CEB>SBC | 0.051 | 1.367 | 0.172 | | Not supported |
| H7: Satisfaction> CEB> Loyalty | -0.005 | 0.536 | 0.592 | | Not supported |

CEB: Customer Engagement Behavior, SBC: Self-brand connection.
Source: Primary Survey.

Importance-performance analysis (IPMA)

Regarding brand loyalty, the IPMA results show that satisfaction has high importance (0.355) and high performance (67.67), followed by trust (0.233 and 63.38, respectively) (Table 3). First, priority must be given to the low performance but higher effects constructs. Therefore,

Table 3
IPMA: Loyalty, Self-brand Connection and Customer Engagement Behavior.

| Construct total effects | Target construct | | |
|-------------------------------|------------------|---------------|---------------|
| | Loyalty | SBC | CEB |
| Customer Engagement Behavior | 0.036 | 0.432 | - |
| Communal Focus | 0.154 | 0.103 | 0.187 |
| Self-concept | 0.024 | 0.369 | 0.373 |
| Self-brand connection | 0.188 | - | 0.118 |
| Satisfaction | 0.355 | 0.051 | 0.091 |
| Trust | 0.233 | 0.039 | 0.187 |
| Construct performances | | | |
| Customer Engagement Behavior | 55.385 | 55.385 | - |
| Communal Focus | 55.373 | 55.373 | 55.373 |
| Self-concept | 53.390 | 53.390 | 53.390 |
| Self-brand connection | 45.675 | - | 67.672 |
| Satisfaction | 67.672 | 67.672 | 63.383 |
| Trust | 63.383 | 63.383 | 55.373 |

CEB: Customer Engagement Behavior, SBC: Self-brand connection.
Source: Primary Survey.

SBC assumes primacy since it has relatively low performance (45.67) but greater effects (0.188). Managers should aim to increase the performance of the target construct (brand loyalty) by improving the performance aspects of SBC. When we analysed SBC as the target construct, the performance value was low for self-concept (53.39) and CEB (55.38), but the total effect was the highest for CEB (0.432), followed by self-concept (0.369). Again, the analysis of the IPMA of the target construct CEB highlights the role of self-concept in determining CEB, which has the highest effect (0.373) but the lowest effect on performance (53.39). Therefore, self-concept, CEB, and SBC are the areas that urgently need to receive managerial attention.

Discussion

Self-brand connection is a social outcome of CEBs resulting from cooperative experiences where customers connect and engage with the brand meaningfully and positively, thus forming a stable bond that can last for a long time. Congruence between the consumer and the brand has a positive effect on the attitude toward the sponsored product, resulting in greater SBC, as propagated by other researchers (Belanche et al. 2021; Elbedwehgy et al. 2016; van der, 2018; Ferraro et al. 2013). As FinTech apps are online service applications and intangible, consumers' social media interactions and engagement can strongly contribute to the development of digital self-brand connections. Customers can engage and purchase different products from several specialized companies owing to the unbundling of financial services. The stronger the bond with the company is, the less likely it is that a customer switches to competitors and avails themselves of the services of a preferred provider. Simultaneously, businesses can rebuild products by leveraging a wealth of data on potential or existing clients, allowing them to better tailor their offers, cross-sell, or market them.

Using the FinTech setting, this paper confirms that consumers with higher self-concepts have greater levels of brand connection and engagement. A few studies have asserted the direct impact of self-concept on loyalty (Ismail et al. 2021; Hollebeek, 2011b) but not the full mediation of SBC leading to loyalty. Therefore, self-concept promotes loyalty through the mediation of SBC and CEBs; it does not, by itself, generate loyalty. This finding has not been widely reported in the previous literature; consumers participate in social media impression management, use brands to openly express themselves and are more likely to interact with a business through e-WOM and other engaging behaviors. However, our study validates the findings of previous studies on this relationship in different settings (Hennig-Thurau et al. 2004; van Doorn et al. 2010; Malär et al. 2011; Aguirre-Rodríguez et al. 2012; Yusof and Ariffin, 2016). Previous research has shown that customers with better self-concepts have higher CEB scores, which translates into positive e-WOM (Levy and Hino, 2016; van Doorn et al. 2010; Hennig-Thurau et al. 2004). When CEB acts as a mediator, a consumer with a favorable self-concept will identify with the brand.

Customers connect with the brand only when they associate their self-concept with that of the brand's characteristics (SBC). Customers who emotionally connect with a brand use it as a vehicle to express themselves, stand up for it when it is threatened, and respond favourably to bad publicity by supporting it with additional purchases or by refuting it with good information (Cheng et al. 2012). Mapping brand image with self-concept also leads to CEBs and thereby SBC. These factors drive customers not only to use new services but also to be loyal in mind. The results of the current study support those of Sprott et al. (2009) in that self-concept contributes to SBC, which in turn leads to loyalty. FinTech firms have the potential to leverage their customers' self-concept ideas by connecting them with the product's image during customer interactions. Since SBC directly affects loyalty, a strong SBC can turn customers into brand loyalists, and their intention to switch to competitors will be less likely. Hence, firms need to design social media strategies and networks that nurture the psychological need for self-expression and the affirmation of customers to incorporate brands

and brand concepts into their identity and confidence. Influencers and endorsers on social media can also engage with customers on a self-concept level (Dwivedi, 2015).

This empirical investigation also validated the function of CEB as a mediator, fully mediating the association between communal focus and SBC. A sense of belonging among the brand community (communal focus) results in SBC when they are positively engaged with the brand. This may also indicate that a mismatch between communal focus and CEBs may result in a lower level of SBC. Consumer interaction in brand communities strengthens the identity-based relationships that connect people to the community (Brodie et al. 2011). Through their knowledge, skills, and recommendations, communal focused and engaged customers contribute to the improvement of the company's offerings and connect with the brand (Jaakkola and Alexander, 2014; Hur et al. 2011). Consumers are far more loyal to community-based cooperative initiatives than they are to those that employ only financial incentives (Rosenbaum et al., 2005). Therefore, companies should nurture the self-concept and communal needs of customers to improve loyalty (Hennig-Thurau et al. 2004).

Our study demonstrates that feelings of satisfaction motivate customers to become loyal both directly and indirectly. Specifically, in the context of online financial services, trust refers to a customer's perception of dependability in the absence of time or location constraints (Yousafzai et al. 2003; Ladhari and Leclerc, 2013). Consumers who form positive beliefs and trust in the brand and products become loyal consumers, thus supporting the findings of Ball et al. (2004), Ladhari and Leclerc (2013), and Hoang (2019). Thus, loyalty has a positive relationship with RQ (satisfaction/trust), where satisfaction has a greater effect ($\beta=0.351$) than does trust ($\beta=0.230$).

We did not find a positive relationship between CEB and loyalty, contrary to the findings of previous studies (Hollebeek et al. 2014; Harrigan et al. 2018). CEB predicts SBCs, and through the mediation of SBC, CEB influences loyalty. Past research on early adopters of technologically demanding financial products by Moliner et al. (2018) and Flavián et al. (2019) showed that engagement (e-WOM) increases customer loyalty. However, this relationship is stronger if CEB contributes to self-brand connections (Harrigan et al. 2018). Self-brand connections result from a satisfied and engaged customer, endorsing the findings of previous cross-sectional studies (Spratt et al. 2009; Brodie et al. 2011; Pansari and Kumar, 2017; De Matos and Rossi, 2008).

Theoretical and practical implications

The process of forming CEBs and the subsequent outcomes of loyalty and SBC help validate the underlying theories of self-congruity and SET. Self-congruity theory defines the congruence between a consumer's self-concept and the personality of the product or brand and describes why and how people choose to buy and engage with brands, products and services, forming a self-brand connection (Sirgy, 1985; Hosany and Martin, 2012). Additionally, the findings support SET, which links one's CEB to behavioral results such as attitude loyalty. The psychological process by which customers integrate brands into their lives and use them as an extension of their self-concept if they connect with brands. A strong SBC and positive CEBs give rise to loyalty (Sirgy, 2018; Hollebeek, 2011a). The self-concept>CEB link implies that customers who desire favorable credit for their efforts from others or those with a high positive self-concept have greater chances of connecting with the brand displayed by e-WOM and other engaging behaviors. Companies that acknowledge and reinforce consumers' ideal self-image with brands will enhance customer loyalty. Our results that highlight significant relationship paths for self-concept>loyalty, self-concept>CEB and self-concept>SBC (self-brand connection) confirm the above theories. Additionally, trust and satisfaction nurture a favorable attitude toward products/brands and consequently increase brand loyalty.

This paper provides directions for practitioners of engagement marketing in technology-enabled service spaces, such as FinTech.

Customer loyalty increases when technology-intensive companies promote SBC and take advantage of positive word-of-mouth marketing by influencers. Customers appreciate trustworthy companies and participate in brand forums, blogging, and word-of-mouth advertising. Therefore, managers should enhance customer perceptions of a brand's competency, authenticity, and reliability to foster loyalty and trust. By providing customers with information about what to expect from the company prior to using the service, service managers may help curb their customers' expectations to a level more achievable for their brand. FinTech companies with a strong technological presence can leverage innovation to convey promptness, honesty, and expertise during customer care interactions.

Marketing managers need to extensively use communication verticals, automated communication across channels, and gamification to connect and engage with consumers. The innovative use of unstructured data gathered from social media and other channels for creating meaningful insights through data analytics and predictive analytics can increase CEBs and satisfaction. The website attributes and service quality can increase CEB (Islam et al., 2019a, 2019b), therefore, companies should offer tools, services and products that help consumers meet their needs and simplify their journeys to strengthen CEBs. Social media channels can be used to implement innovative campaigns involving virtual influencers, endorsers, and bloggers in the FinTech space who generate and share compelling and creative content. Artificial intelligence and machine learning can be used to provide advice and services for differentiating core propositions (Fasnacht, 2018) and thereby advancing CEBs and increasing retention.

Managers who understand the value of creating symbolic connections with their brands and interpersonal brand qualities such as reputation, openness, and familiarity may be able to boost the influence of self-concept on CEB and SBC. Therefore, firms should conduct market research to comprehend the mechanism by which consumers' self-concepts translate into brand usage. Online interactions enhance SBC when consumers engage with brands that are aligned with their self-concept. Companies' initiatives should make consumers believe that a brand understands and values them. This approach would not only strengthen the emotional bond between consumers and brands but also foster a sense of identification. It is also recommended that decision makers develop online platforms that are inclusive, foster social interaction, and uphold their uniqueness by projecting a worldwide brand image that aligns with customers' widely held beliefs and self-images. It is advisable to motivate brand advocates to produce content that resonates with those who have a strong self-concept, as this will enhance their engagement and fortify their relationship with their own brand. Similarly, customers have a strong need to safeguard the interest of their community in times of distress and danger. Therefore, firms may also support online brand communities by sharing repeat user reviews and adopting a content-led approach to build trustworthy propositions, satisfaction and mutually beneficial relationships.

Conclusion

Congruence between brand connection and self-concept fosters brand loyalty, particularly on immersive virtual platforms that offer personalized interactions and experiences, offers, and suggestions that align with self-concept. The study results demonstrate that FinTech firms need to be customer-centric and establish processes, applications, and practices focused on both CEB and SBC. FinTech firms should leverage this knowledge in aspirational branding, targeting, and segmentation decisions. Brand loyalty occurs when the symbolic value of a brand matches the customer's self-concept in a digital world. In addition, firms need to employ social media influencers and celebrity endorsers who enable customers to engage with brands that they endorse and thereby increase SBC and loyalty. The present study was limited to customers of FinTech apps dealing with payment services, but future studies could include other financial services, such as InsureTech, peer-

to-peer lending, and other service industries, such as healthcare and media. These findings may not be applicable to states or countries that have lower levels of FinTech adoption. Since the psychological aspects of these studies vary among cultures, the findings of the present study should be interpreted with caution. The snowball sampling technique has limitations such as a biased network effect or a sample that is not representative. To expand the proposed paradigm, future research may include a causal design employing experimental methods. Apart from quantitative methods alone, a mixed method involving qualitative techniques could be used to capture the subjective dimensions of the variables under study.

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Ethical statement

Ethical approval was obtained from the ethics committee of the Manipal Institute of Management, Manipal Academy of Higher Education, for this empirical study in the Indian Fintech industry in June 2020.

CRedit authorship contribution statement

Archana Kini Nayak: Conceptualization, Methodology, Software, Data curation, Formal analysis, Visualization, Investigation, Writing-Original draft preparation. Basri Savitha: Conceptualization, Methodology, Software, Data curation, Visualization, Investigation, Supervision, Writing- Reviewing and Editing. Iqbal Thonse Hawaldar: Validation, Visualization, Funding acquisition, Supervision, Writing-Reviewing and Editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Conflict of interest

The authors declare no conflicts of interest.

References

- Aguirre-Rodriguez, A., Bosnjak, M., Sirgy, M.J., 2012. Moderators of the self-congruity effect on consumer decision-making: a meta-analysis. *J. Bus. Res.* 65, 1179–1188. <https://doi.org/10.1016/j.jbusres.2011.07.031>.
- Ball, D., Simões Coelho, P., Machás, A., 2004. The role of communication and trust in explaining customer loyalty: an extension to the ECSI model. *Eur. J. Mark.* 38, 1272–1293. <https://doi.org/10.1108/03090560410548979>.
- Belanche, D., Casaló, L.V., Flavián, H., Ibáñez-Sánchez, S., 2021. Understanding influencer marketing: the role of congruence between influencers, products and consumers. *J. Bus. Res.* 132, 186–195.
- Belk, R.W., 2016. Extended self and the digital world. *Curr. Opin. Psychol.* 10, 50–54.
- Bhat, S.A., Darzi, M.A., 2016. Customer relationship management: an approach to competitive advantage in the banking sector by exploring the mediational role of loyalty. *Int. J. Bank Mark.* 34, 388–410.
- Bowden, J.L.H., 2009. The process of customer engagement: a conceptual framework. *J. Mark. Theory Pract.* 17, 63–74. <https://doi.org/10.2753/MTP1069-6679170105>.
- Brodie, R.J., Hollebeek, L.D., Jurić, B., Ilić, A., 2011. Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *J. Serv. Res.* 14, 252–271. <https://doi.org/10.1177/1094670511411703>.
- Cambra, J., Melero, I., Sesé, F.J., 2016. Can complaint-handling efforts promote customer engagement? *Ser. Bus.* 10, 847–866.

- Carter, M., Grover, V., 2015. Me, My Self, and I(T): Conceptualizing information technology identity and its implications. *MIS Q.* 39, 931–957.
- Chen, R., Zhou, Z., Zhan, G., Zhou, N., 2020. The impact of destination brand authenticity and destination brand self-congruence on tourist loyalty: the mediating role of destination brand engagement. *J. Dest. Mark. Manag.* 5 (3688), 100402. <https://doi.org/10.1016/j.jdmm.2019.100402>.
- Cheng, S.Y.Y., White, T.B., Chaplin, L.N., 2012. The effects of self-brand connections on responses to brand failure: a new look at the consumer-brand relationship. *J. Consum. Psychol.* 22, 280–288.
- CRISIL Inclusix (2018). CRISIL Inclusix Financial Inclusion surges driven by Jan Dhan Yojana. Available at: <https://www.crisil.com/content/dam/crisil/ouranalysis/reports/Research/documents/2018/march/crisil-inclusix-financial-inclusion-surgesdriven-by-Jan-Dhan-yojana.pdf>.
- Cvijikj, I., Michahelles, F., 2013. Online engagement factors on Facebook brand pages. *Soc. Netw. Anal. Min.* 3, 843–861.
- Dalvand, A., Simkhah, M., Jafari, D., 2019. The Impact of Online Brand Community characteristics on loyalty with the mediating role of customer engagement and the moderation role of gender. *Bus. Intell. Manag. Stud.* 27, 103–138. <https://doi.org/10.22054/ims.2019.9985>.
- De Matos, C.A., Rossi, C.A.V., 2008. Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators. *J. Acad. Mark. Sci.* 36, 578–596. <https://doi.org/10.1007/s11747-008-0121-1>.
- Dessart, L., Veloutsou, C., Morgan-Thomas, A., 2016. Capturing consumer engagement: duality, dimensionality and measurement. *J. Mark. Manag.* 32, 5–6.
- Dwivedi, A., 2015. A higher-order model of consumer brand engagement and its impact on loyalty intentions. *J. Retail. Consum. Serv.* 24, 100–109.
- Elbedweighy, A.M., Jayawardhena, C., Elsharnouby, M.H., Elsharnouby, T.H., 2016. Customer relationship building: the role of brand attractiveness and consumer brand Identification. *J. Bus. Res.* 69, 2901–2910.
- Ernst and Young, 2017. EY FinTech Adoption Index- The rapid emergence of FinTech, available at: ([http://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/\\$](http://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/$)), FILE/ey-fintech-adoptionindex-2017. Pdf (accessed 20 January 2023).
- Escalas, J.E., 2004. Narrative Processing: Building Consumer Connections to Brands. *J. Consum. Psychol.* 14, 168–180. https://doi.org/10.1207/s15327663jcp1401&2_19.
- Escalas, J.E., Bettman, J.R., 2003. You are what they eat: the influence of reference groups on consumers' connections to brands. *J. Consum. Psychol.* 13, 339–348.
- Escalas, J.E., Bettman, J.R., 2005. Self-construal, reference groups, and brand meaning. *J. Consum. Res.* 32, 378–389. <https://doi.org/10.1086/497549>.
- Escalas, J.E., Bettman, J.R., 2009. Self-brand connections: The role of reference groups and celebrity endorsers in the creation of brand meaning. In: MacInnis, D.J., Park, D. J., Priester, J.R., C.W. (Eds.), *Handbook of brand relationships*. Routledge, England, pp. 107–123.
- Fasnacht, D., 2018. Open Innovation in the Financial Services. In: *Open Innovation Ecosystems- Growing Through Openness, Flexibility and Customer Integration*. Springer, pp. 97–130.
- Ferraro, R., Kirmani, A., Matherl, T., 2013. Look at me! Look at me! Conspicuous brand usage, self-brand connection, and dilution. *J. Mark. Res.* 50, 477–488.
- Flavián, C., Ibáñez-Sánchez, S., Orús, C., 2019. The impact of virtual, augmented and mixed reality technologies on the customer experience. *J. Bus. Res.* 100, 547–560.
- Füller, J., Matzler, K., Hoppe, M., 2008. Brand community members as a source of Innovation. *J. Prod. Innov. Manag.* 25, 608–619.
- Gambetti, R.C., Graffigna, G., Biraghi, S., 2012. The grounded theory approach to consumer-brand engagement: the practitioner's standpoint. *Int. J. Mark. Res.* 54, 659–687. <https://doi.org/10.2501/IJMR-54-5-659-687>.
- Glavee-Geo, R., Shaikh, A.A., Karjaluoto, H., Hinson, R.E., 2019. Drivers and outcomes of consumer engagement: insights from mobile money usage in Ghana. *Int. J. Bank Mark.* 38, 1–20.
- Gomber, P., Kauffman, R.J., Parker, C., Weber, B.W., 2018. On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *J. Manag. Inf. Syst.* 35, 220–265.
- Hair, J., Hult, T., Ringle, C.M., Sarstedt, M., 2017. *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)*, second ed. Sage Publications, London.
- Han, X., Fang, S., Xie, L., Yang, J., 2019. Service fairness and customer satisfaction. *J. Conntemp. Mark. Sci.* 22, 482–498. <https://doi.org/10.1108/JCMARS-01-2019-0003>.
- Harmeling, C.M., Moffett, J.W., Arnold, M.J., Carlson, B.D., 2017. Toward a theory of customer engagement marketing. *J. Acad. Mark. Sci.* 45, 312–335.
- Harrigan, P., Evers, U., Miles, M., Daly, T., 2017. Customer engagement with tourism social media brands. *Tour. Manag.* 59, 597–609. <https://doi.org/10.1016/j.tourman.2016.09.015>.
- Harrigan, P., Evers, U., Miles, M.P., Daly, T., 2018. Customer engagement and the relationship between involvement, engagement, self-brand connection and brand usage intent. *J. Bus. Res.* 88, 388–396.
- Hennig-Thurau, T., Gwinner, K.P., Walsh, G., Gremler, D.D., 2004. Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? *J. Interact. Mark.* 18, 38–52. <https://doi.org/10.1002/dir.10073>.
- Henseler, J., Ringle, C.M., Sarstedt, M., 2016. Testing measurement invariance of composites using partial least squares. *Int. Mark. Rev.* 33, 405–431. <https://doi.org/10.1108/IMR-09-2014-0304>.
- Hoang, D.P., 2019. The central role of customer dialogue and trust in gaining bank loyalty: an extended SWICS model. *Int. J. Bank Mark.* 37, 711–729. <https://doi.org/10.1108/IJBM-03-2018-0069>.
- Hollebeek, L., 2011b. Exploring customer brand engagement: definition and themes. *J. Strateg. Mark.* 19, 555–573.

- Hollebeek, L.D., 2011a. Demystifying customer brand engagement: exploring the loyalty Nexus. *J. Mark. Manag.* 27, 785–807.
- Hollebeek, L.D., Glynn, M.S., Brodie, R., 2014. Consumer brand engagement in social media: Conceptualization, scale development, and validation. *J. Interact. Mark.* 28, 149–165.
- Hollebeek, L.D., Malthouse, E.C., Block, M.P., 2016. Sounds of music: exploring consumers' musical engagement. *J. Consum. Mark.* 33, 417–427.
- Hollebeek, L.D., Juric, B., Tang, W., 2017. Virtual brand community engagement practices: a refined typology and model. *J. Serv. Mark.* 31, 204–217.
- Hosany, S., Martin, D., 2012. Self-image congruence in consumer behavior. *J. Bus. Res.* 65, 685–691. <https://doi.org/10.1016/j.jbusres.2011.03.015>.
- Hur, W.-M., Ahn, K.-H., Kim, M., 2011. Building brand loyalty through managing brand community commitment. *Manag. Decis.* 49, 1194–1213. <https://doi.org/10.1108/002517411111512>.
- InvestIndia, 2021. Invest India Annual Report. <https://www.investindia.gov.in/Invest-India-Annual-Report-2021> (accessed 12 January 2023).
- Islam, J.U., Rahman, Z., Hollebeek, L.D., 2018. Consumer engagement in online brand communities: a solicitation of congruity theory. *Internet Res.* 28, 23–45. <https://doi.org/10.1108/IntR-09-2016-0279>.
- Islam, J.U., Hollebeek, L.D., Rahman, Z., Khan, I., Rasool, A., 2019a. Customer engagement in the service context: an empirical investigation of the construct, its antecedents and consequences. *J. Retail. Consum. Serv.* 50, 277–285.
- Islam, J.U., Hollebeek, L.D., Rahman, Z., Khan, I., Rasool, A., 2019b. Impact of website attributes on customer engagement in banking: a solicitation of stimulus-organism response theory. *Int. J. Bank Mark.* 38, 1279–1303.
- Jaakkola, E., Alexander, M., 2014. The role of customer engagement behavior in value cocreation: a service system perspective. *J. Serv. Res.* 17, 247–261. <https://doi.org/10.1177/1094670514529187>.
- Japutra, A., Ekinci, Y., Simkin, L., 2017. Self-congruence, brand attachment and compulsive buying. *J. Bus. Res.* 99, 456–463.
- Kaabachi, S., Mrad, S.B., O'Leary, B., 2019. Consumer's initial trust formation in IOB's acceptance: The role of social influence and perceived compatibility. *Int. J. Bank Mark.* 37 (1) <https://doi.org/10.1108/IJBM-12-2017-0270>.
- Kaur, H., Paruthi, M., Islam, J., Hollebeek, L.D., 2020. The role of brand community identification and reward on consumer brand engagement and brand loyalty in virtual brand communities. *Telemat. Inform.* 46. <https://doi.org/10.1016/j.tele.2019.101321>.
- Kosiba, J.P.B., Boateng, H., Amartey, A.F.O., Boakye, R.O., Hinson, R., 2018. Examining customer engagement and brand loyalty in retail banking: the trustworthiness influence. *Int. J. Retail. Distrib. Manag.* 46, 764–779. <https://doi.org/10.1108/IJRDM-08-2017-0163>.
- Kressmann, F., Sirgy, M.J., Herrman, N., A., Huber, F., Huber, S., Lee, D.-J., 2006. Direct and indirect effects of self-image congruence on brand loyalty. *J. Bus. Res.* 59, 955–964.
- Kumar, V., Pansari, A., 2016. Competitive advantage through engagement. *J. Mark. Res.* 53, 497–514. <https://doi.org/10.1509/jmr.15.0044>.
- Kumar, V., Pozza, I.D., Ganesh, J., 2013. Revisiting the satisfaction-loyalty relationship: empirical generalizations and directions for future research. *J. Retail.* 89, 246–262.
- Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., Tillmanns, S., 2010. Undervalued or overvalued customers: capturing total customer engagement value. *J. Serv. Res.* 13, 297–310.
- Ladhari, R., Leclerc, A., 2013. Building loyalty with online financial services customers: Is there a gender difference? *J. Retail. Consum. Serv.* 20, 560–569. <https://doi.org/10.1016/j.jretconser.2013.07.005>.
- Lam, S.K., Ahearne, M., Hu, Y., Schillewaert, N., 2010. Resistance to brand switching when a radically new brand is introduced: a social identity theory perspective. *J. Mark.* 74, 128–146.
- Lee, S., Jeong, M., 2014. Enhancing online brand experiences: an application of congruity theory. *Int. J. Hosp. Manag.* 40, 49–58. <https://doi.org/10.1016/j.ijhm.2014.03.008>.
- Levy, S., Hino, H., 2016. Emotional brand attachment: a factor in customer-bank relationships. *Int. J. Bank Mark.* 34, 136–150. <https://doi.org/10.1108/IJBM-06-2015-0092>.
- Lin, H., Fan, W., Chau, P., 2014. Determinants of users' continuance of social networking sites: a self-regulation perspective. *Info Manag.* 51, 595–603.
- Liu, R.L., Sprott, D.E., Spangenberg, E.R., Czellar, S., Voss, K.E., 2018. Consumer preference for national vs. private brands: the influence of brand engagement and self-concept threat. *J. Retail. Consum. Serv.* 41, 90–100.
- Malär, L., Krohmer, H., Hoyer, W.D., Nyffenegger, B., 2011. Emotional brand attachment and brand personality: the relative importance of the actual and the ideal self. *J. Mark.* 75, 35–52.
- Maslowska, E., Malthouse, E., Collinger, T., 2016. The customer engagement ecosystem. *J. Mark. Manag.* 32 (5–6).
- Mikhaylov, A., Dinçer, H., Yüksel, S., 2023. Analysis of financial development and open innovation oriented fintech potential for emerging economies using an integrated decision-making approach of MF-X-DMA and golden cut bipolar q-ROFSs. *Financ Innov.* 9. <https://doi.org/10.1186/s40854-022-00399-6>.
- Minazzi, R., 2015. *Social Media Marketing in Tourism and Hospitality*. Springer International Publishing, Cham, Switzerland.
- Moisescu, O.-I., Giça, O.A., Herle, F.-A., 2022. Boosting eWOM through social media brand page engagement: the mediating role of self-brand connection. *Behav. Sci.* 12, 411. <https://doi.org/10.3390/bs12110411>.
- Moliner, M.A., Monferrer-Tirado, D., Estrada-Guillén, M., 2018. Consequences of customer engagement and customer self-brand connection. *J. Serv. Mark.* 32, 387–399. <https://doi.org/10.1108/JSM-08-2016-0320>.
- Molinillo, S., Anaya-Sánchez, R., Liébana-Cabanillas, F., 2020. Analyzing the effect of social support and community factors on customer engagement and its impact on loyalty behaviors toward social commerce websites. *Comput. Hum. Behav.* 108, 105980.
- Monferrer, D., Moliner, M.A., Estrada, M., 2019. Increasing customer loyalty through customer engagement in the retail banking industry. *Span. J. Mark.* 23, 461–484.
- Morgan, R.M., S.D. Hunt, S.D., 1994. The commitment-trust theory of relationship marketing. *J. Mark.* 58, 20–38.
- Morroneglio, C., N'Goala, G., Kreziak, D., 2017. Customer psychological empowerment as a critical source of customer engagement. *Int. Stud. Manag. Organ.* 47 (1), 61–87.
- Oliver, R.L., 1999. Whence consumer loyalty? *J. Mark.* 6 (4), 33–44.
- Palmatier, R.W., Dant, R.P., Grewal, D., Evans, K.R., 2006. Factors influencing the effectiveness of relationship marketing: a meta-analysis. *J. Mark.* 70, 136–153. <https://doi.org/10.1509/jmkg.70.4.136>.
- Pansari, A., Kumar, V., 2017. Customer engagement: the construct, antecedents, and consequences. *J. Acad. Mark. Sci.* 45, 294–311. <https://doi.org/10.1007/s11747-016-0485-6>.
- Parihar, P., Dawra, J., Sahay, V., 2019. The role of customer engagement in the involvement loyalty link. *Mark. Intel. Plan.* 37, 66–79.
- Parmar, Y., Mann, B.J.S., 2021. Consumer-celebrity parasocial interaction: a conditional process analysis. *Glob. Bus. Rev.* <https://doi.org/10.1177/09721509211010358>.
- Razmus, W., Jaroszńska, M., Pałęga, M., 2017. Personal aspirations and brand engagement in self-concept. *Pers. Ind. Differ.* 105, 294–299.
- Rosenbaum, M.S., Ostrom, A.L., Kuntze, R., 2005. Loyalty programs and a sense of community. *J. Serv. Mark.* 19 (4), 222–233. <https://doi.org/10.1108/08876040510605253>.
- Roy, R., Rabbane, F.K., 2015. Antecedents and consequences of self-congruity. *Eur. J. Mark.* 49, 444–466. <https://doi.org/10.1177/00222429990634s105>.
- Roy, S.K., Balaji, M.S., Soutar, G., Lassar, W.M., Roy, R., 2018. Customer engagement behavior in individualistic and collectivistic markets. *J. Bus. Res.* 86, 281–290. <https://doi.org/10.1016/j.jbusres.2017.06.001>.
- Salesforce (2022). Connected customer report. <https://www.salesforce.com/news/stories/customer-engagement-research/>.
- Sirgy, M.J., 1982. Self-concept in consumer behavior: a critical review. *J. Consum. Res.* 9, 287–300. <https://doi.org/10.1086/208924>.
- Sirgy, M.J., 1985. Using self-congruity and ideal congruity to predict purchase motivation. *J. Bus. Res.* 13, 195–206. [https://doi.org/10.1016/0148-2963\(85\)90026-8](https://doi.org/10.1016/0148-2963(85)90026-8).
- Sirgy, M.J., 2018. Self-congruity theory in consumer behavior: a little history. *J. Glob. Sch. Mark. Sci.* 28 <https://doi.org/10.1080/21639159.2018.1436981>.
- Sop, S.A., Kozak, N., 2019. Effects of brand personality, self-congruity and functional congruity on hotel brand loyalty. *J. Hosp. Mark. Manag.* 28, 926–956. <https://doi.org/10.1080/19368623.2019.1577202>.
- Sprott, D., Czellar, S., Spangenberg, E., 2009. The importance of a general measure of brand engagement on market behavior: development and validation of a scale. *J. Mark. Res.* 46, 92–104. <https://doi.org/10.1509/jmkr.46.1.92>.
- Tan, T.M., Salo, J., Juntunen, J., Kumar, A., 2019. The role of temporal focus and self-congruence on consumer preference and willingness to pay: A new scrutiny in branding strategy. *Eur. J. Mark.* 53, 37–62.
- Thakur, R., 2016. Understanding customer engagement and loyalty: a case of mobile devices for shopping. *J. Retail. Consum. Serv.* 32, 151–163.
- Tsai, W.H.S., Men, L.R., 2017. Consumer engagement with brands on social network sites: a cross-cultural comparison of China and the USA. *J. Mark. Commun.* 23, 2–21.
- van der, W.L.-M., 2018. Brand loyalty: exploring self-brand connection and brand experience. *J. Prod. Brand Manag.* 27, 172–184. <https://doi.org/10.1108/JPBM-07-2016-1281>.
- van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirmer, P., Verhoef, P.C., 2010. Customer engagement behavior: theoretical foundations and research directions. *J. Serv. Res.* 13, 253–266. <https://doi.org/10.1177/1094670510375599>.
- Vargo, S.L., Lusch, R.F., 2004. The four service marketing myths: remnants of a goods-based, manufacturing model. *J. Serv. Res.* 6 (4), 324–335.
- Vivek, S.D., Beatty, S.E., Dalela, V., Morgan, R.M., 2014. A generalized multidimensional scale for measuring customer engagement. *J. Mark. Theory Pract.* 22, 401–420.
- Wallace, E., Buil, I., Chernatony, L., 2014. Consumer engagement with self-expressive brands: brand love and WOM outcomes. *J. Prod. Brand Manag.* 23, 33–42. <https://doi.org/10.1108/JPBM-06-2013-0326>.
- Wu, S., Ren, M., Pitafi, A.H., Islam, T., 2020. Self-image congruence, functional congruence, and mobile app intention to use. *Mob. Inf. Sys.* 1-17. <https://doi.org/10.1155/2020/5125238>.
- Yousafzai, S.Y., Pallister, J.G., Foxall, G.R., 2003. A proposed model of e-trust for electronic banking. *Technovation* 23, 847–860.
- Yusof, J.M., Ariffin, S., 2016. Influence of Self-Congruity, Functional Images, and Emotional Attachment on Loyalty. *Proc. Econ. Fin.* 37, 350–357.