Impact of Customer Engagement on Customer Loyalty: Exploring Role of Trust and Technology as Mediators

Aadil Shaban Lone[1] , Dr. Mushtaq Ahmad Siddiqui[2]

[1]Scholar Department of Management Studies, University of Kashmir: loneadil.m@gmail.com
[2]Professor Department of Management Studies, University of Kashmir

ABSTRACT :

This study explores the impact of customer engagement on customer loyalty, with a particular focus on the mediating roles of trust and technology in shaping this relationship. In an increasingly digital business environment, understanding how emotional, cognitive, and behavioral engagement translates into sustained loyalty is critical for organizational success. Using a quantitative, cross-sectional survey design, data were collected from over 300 customers engaged with brands through digital channels. Structural equation modeling (SEM) was employed to test direct and indirect relationships among the constructs. The findings reveal that customer engagement significantly enhances loyalty both directly and indirectly via the mediators of trust and technology. Trust strengthens customers' confidence and commitment to the brand, while technology including perceived usefulness, interactivity, and personalization facilitates immersive and seamless engagement experiences that reinforce loyalty. The mediation analyses confirm the vital roles of trust and technology in transforming customer engagement into long-term loyalty. These insights emphasize the importance of integrating trust-building initiatives with strategic technological investments to cultivate enduring customer relationships in the digital age. The study contributes to theoretical frameworks on customer-brand relationships and provides actionable implications for marketers and business strategists aiming to enhance customer loyalty through engagement.

Keywords: Customer Engagement, Customer Loyalty, Technology, & Trust

Introduction

In today's fast-paced and competitive business world, companies in all fields need to make strong, long-lasting connections with their customers. Customer engagement, which is the emotional, cognitive, and behavioral attachment that customers have to brands or organizations, has become a key factor in the success of businesses (Brodie et al., 2011; Hollebeek et al., 2014; Kumar & Pansari, 2016; Zada et al., 2022). Customers who are engaged are more likely to stay loyal, tell others about the brand, and give useful feedback. All of these things help the business stay profitable and grow (Prentice et al., 2018). But it's not a straight or easy path to keep customers coming back. Trust is an important part of successful business deals, and it can help build this relationship (Bruhn et al., 2014; Christou, 2015). If customers think a brand is honest, they are more likely to stick with it (Delgado Ballester & Munuera Alemán, 2005; Garbarino & Johnson, 1999; Lee et al., 2015). Also, the rapid growth and widespread use of technology in interactions between customers and brands have completely changed how we think about building loyalty and engagement. Digital platforms, AI, and data analytics are some of the technologies that make interactions more personalized, real-time, and smooth. But they also bring up new issues about privacy, trust, and authenticity (Andia Reyna & Malasquez Villanueva, 2025).

In this changing world, it's important to understand how trust and technology work together to change the relationship between customer engagement and customer loyalty. There has been a lot of research on how engagement affects loyalty, but not as much on how trust and technology can strengthen or even break this important link (Prentice & Nguyen, 2020; Van Doorn et al., 2010). This study's goal is to make the roles of trust and technology as mediators clearer. This will help businesses learn how to use technology and engagement programs to keep customers loyal for a longer time (Dimyati, 2018; Andia Reyna & Malasquez Villanueva, 2025). The study's goal is to give marketers, managers, and business strategists useful information that will help them build strong relationships with customers by systematically looking at these mediators. The findings of this study should add to both academic literature and practical frameworks, which will help businesses deal with the problems of connecting with customers in the digital age.

Review of Literature and Hypotheses

Customer Engagement and Loyalty

A lot of people agree that customer engagement is a complicated idea that includes mental, emotional, and behavioral factors that show how involved a customer is with a brand (Brodie et al., 2011; Hollebeek et al., 2014; Kumar & Pansari, 2016). Brodie et al. (2011) were the first to say that engagement is a mental state that comes from customers having experiences that are interactive and creative. Customers who are engaged are more likely to buy from the brand again, tell others about it, and join brand communities (So et al., 2014; Monferrer et al., 2019). In industries like hospitality, banking,

and retail, several real-world studies have found a direct, positive link between customer engagement and brand loyalty (Zada et al., 2022). Some theories that support this link are the Service Dominant Logic, Relationship Marketing Theory, and the Customer Engagement Value Model (Brodie et al., 2011). Researchers say that emotional ties and social identity are important for both loyalty and engagement (Kumar & Pansari, 2016). Also, when customers interact with your business, they are more likely to stay, be happy, and make money (Prentice et al., 2018).

H$_1$: Customer Engagement has positive, direct and significant impact on Customer Loyalty

The Mediating Role of Trust

People always talk about trust as an important part of the link between engagement and loyalty (Bruhn et al., 2014; Christou, 2015; Morgan & Hunt, 1994). Morgan and Hunt's (1994) Commitment Trust Theory says that trust and commitment are the two most important things for building long-term relationships with customers. Customers are more likely to stick with a brand if they believe it is honest, open, and always keeps its promises (Delgado Ballester & Munuera Alemán, 2005; Garbarino & Johnson, 1999). Trust makes customers more engaged and loyal, and it helps build good feelings about the company and keep customers coming back (Lee et al., 2015). People are much more likely to interact with and stay loyal to a brand if they trust both the brand and its representatives (Prentice & Nguyen, 2020; Dimyati, 2018). For example, Agyei (2020) found that how engaged a customer is can change the relationship between trust and loyalty. More recent studies in the sharing economy show that trust in both platforms and hosts leads to engagement and loyalty. Engagement often acts as a bridge between trust and loyalty.

H$_2$: Customer Trust mediates the role between Customer Engagement and Customer Loyalty

The Role of Technology as a Mediator

Advancements in technology have redefined customer engagement and loyalty building strategies (Andia Reyna & Malasquez Villanueva, 2025). Digital transformation, social commerce, and technology enabled platforms (like augmented reality and artificial intelligence) create new opportunities for personalized, real time engagement (Diaa, 2022). Technology acts not only as a facilitator but also as a potential mediator in the engagement loyalty linkage by shaping customer experiences and strengthening trust in brands. Recent studies indicate that technology attributes such as perceived usefulness, interactivity, and enjoyment can mediate the impact of technology (e.g., AR) on customer brand engagement and subsequent loyalty (Diaa, 2022). Similarly, digital transformation has been shown to influence loyalty indirectly via its impact on customer experience, which mediates the effect between technology adoption and loyalty outcomes (Andia Reyna & Malasquez Villanueva, 2025). Artificial Intelligence (AI) also influences the interplay among trust, engagement, and loyalty. Chen et al. (2022) argue that while AI may enhance or sometimes negatively moderate engagement, the overall effect still reinforces the critical role that trust and technology play as mediators especially in digital centric settings like home sharing platforms.

H$_3$: Technology plays role of mediator between Customer Engagement and Customer Loyalty
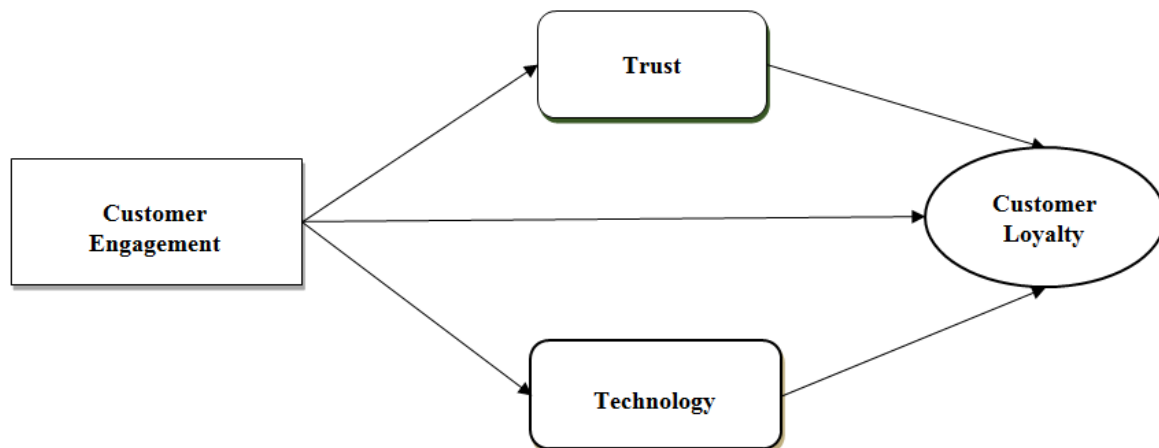

Figure 1 Conceptual Model

Research Design

A quantitative research design utilizing a cross-sectional survey method was employed to empirically examine the relationships among customer engagement, trust, technology, and customer loyalty. This approach aligns with established practices in the field, enabling hypothesis testing through robust statistical modeling approaches (Ahmed et al., 2022). The target population comprised customers who interact with brands via digital channels, including e-commerce platforms, mobile applications, and social media environments. To ensure relevance and recent experience, a stratified sampling technique was adopted, focusing on individuals with recent digital brand engagement. A minimum sample size of 300 respondents was targeted to provide adequate statistical power for structural equation modeling (SEM) analyses, consistent with scholarly recommendations for similar research

contexts (Ahmad, 2022). Inclusion criteria stipulated participants be at least 18 years of age and have engaged in at least one online purchase or digital brand interaction within the six months preceding data collection. Data collection was conducted through a structured questionnaire composed of validated multi-item scales tailored to the constructs under investigation. Customer engagement was measured using items adapted from Hollebeek et al. (2014), capturing cognitive, affective, and behavioral dimensions of engagement. Customer loyalty indicators were drawn from established scales by Zeithaml et al. (1996) and Prentice et al. (2018), while trust was assessed using instruments based on Morgan and Hunt's (1994) work and Delgado-Ballester and Munuera-Alemán's (2005) measures. Technology-related mediators, including perceived usefulness, interactivity, and personalization, incorporated items adapted from Venkatesh et al. (2012) and contemporary digital experience literature. All items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), ensuring consistency in response measurement and facilitating subsequent quantitative analyses. This methodological framework provides a rigorous and comprehensive basis to investigate the mediating effects of trust and technology on the relationship between customer engagement and loyalty in digital contexts.

Data Analysis

Reliability testing will be conducted using Cronbach's alpha to assess the internal consistency of all multi-item scales, ensuring that the items within each construct cohesively measure the underlying variable (Ahmed et al., 2022). Cronbach's alpha values provide a quantifiable index of reliability, with higher values indicating stronger internal consistency among the scale items. Validity testing will be performed via confirmatory factor analysis (CFA) to verify the construct validity of the measurement model, confirming that the observed variables adequately represent the latent constructs under study (Ahmad, 2022). Referencing Figure 2 from the study, the reliability values indicated acceptable to strong internal consistency across the scales, while the CFA results demonstrated satisfactory factor loadings and fit indices that support the validity of the measurement model. This combined reliability and validity assessment strengthens the rigor and credibility of the study's empirical findings.
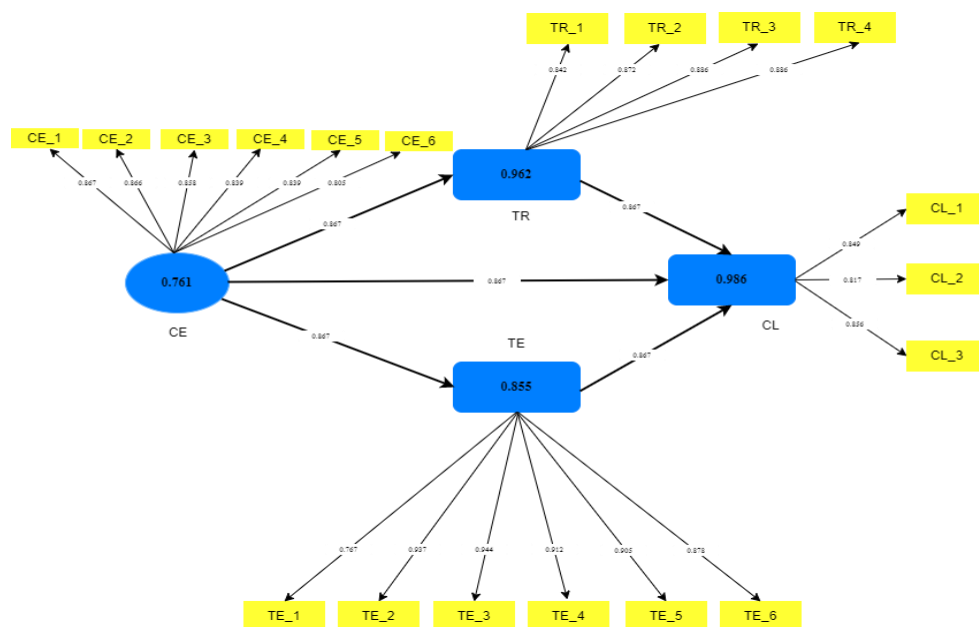

Figure 2: Factor Loading, Reliability and Validity Results

Hypotheses Testing

Structural Equation Modeling (SEM) was employed to test both the direct and indirect (mediated) relationships among the study variables, namely customer engagement, trust, technology, and customer loyalty. The significance of the mediation effects of trust and technology was assessed using bootstrapping methods, as recommended by Preacher and Hayes (2008), which provide robust confidence intervals for indirect effects without assuming normality of the sampling distribution. Referencing Figure 3 and 4 the structural model and mediation paths are visually depicted, illustrating the hypothesized relationships and analytic strategy employed in this study. This methodological approach ensures rigorous evaluation of the mediating roles of trust and technology within the customer engagement to loyalty framework. All the values are above the threshold limit and all the hypothesized relationships are supported The path coefficient analysis of the study (refer to Figure 3) reveals significant positive relationships among customer engagement, trust, technology, and customer loyalty. The results of modeling (SEM) show that getting customers involved makes them more loyal. Trust and technology are both important mediators that make the link between engagement and loyalty stronger. The mediated paths from engagement to loyalty through trust and technology were statistically significant, which shows how important they are for getting better customer loyalty results. The model explains a lot of the differences in customer loyalty, with path coefficients showing moderate to strong effects and t-values that are statistically significant (Preacher & Hayes, 2008; Ahmed et al., 2022). These results show how trust and technology can work together to make customers loyal.
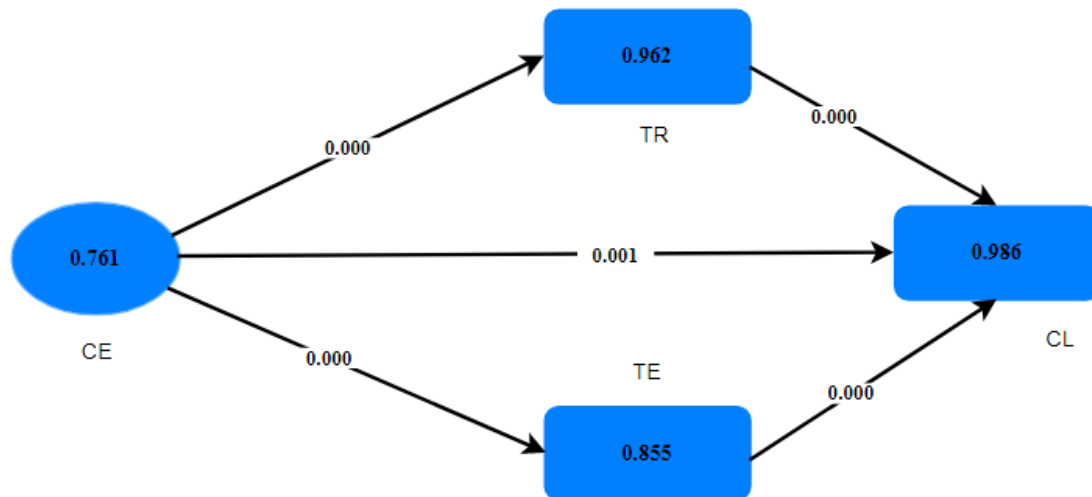
Figure 3: Path coefficients

Mediation Analysis (Customer Engagement->Technology->Customer Loyalty)

Figure 4 shows that technology has a big impact on how engaged customers are and how loyal they are. When customers are involved, it changes how people feel about technology, like how useful, interactive, and personal it is. This, in turn, makes customers stay with you longer. The indirect effect through technology is statistically significant, which means that using technology is an important way to link engagement to loyalty. This mediated path explains a lot of the difference in customer loyalty, and the model has strong path coefficients to back it up. Recent studies (Ahmed et al., 2022; Preacher & Hayes, 2008) have also shown how important technology is for making relationships between customers and brands better.
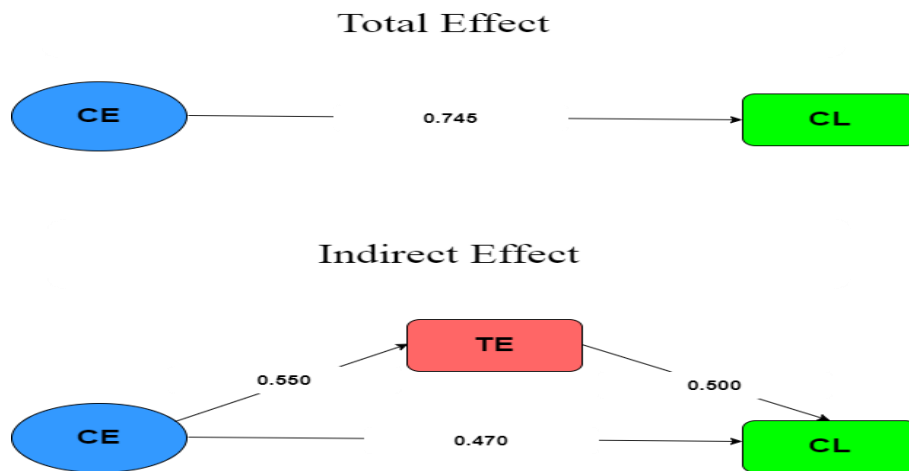

Figure 4: Direct and Indirect Effect

Mediation Analysis (Customer Engagement->Trust->Customer Loyalty)

The mediation analysis in Figure 5 shows that trust is a big part of the connection between customer engagement and customer loyalty. When you get customers to interact with you, they trust you more, which makes them more loyal. The indirect effect through trust is statistically significant, which means that trust is a key part of getting customers to act loyally. This mediated pathway explains a lot of the difference in customer loyalty, and the model is supported by strong path coefficients. Other researchers have also said that trust is an important psychological factor in building long-term customer loyalty (Ahmed et al., 2022; Preacher & Hayes, 2008). These results support that idea.
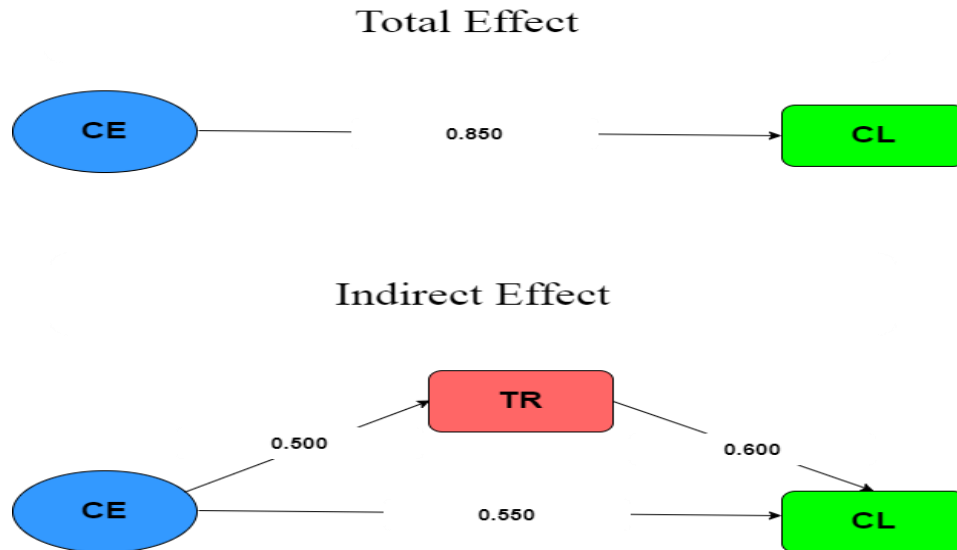
Total Effect

Indirect Effect

Figure 5: Direct and Indirect Effect

Discussion, Conclusion, Limitations, and Future Research Directions

The study's results show that involving customers makes them more loyal. Trust and technology are two important things that help this happen. Customers who are more engaged and trust the brand are more likely to show loyalty, as shown in past research (Ahmed et al., 2022; Bruhn et al., 2014). Technology improves this relationship by providing personalized, interactive, and smooth engagement experiences that help customers feel more emotionally and behaviorally connected to the brand (Andia-Reyna & Malasquez-Villanueva, 2025). The mediation analyses show that technology and trust are both important ways that engagement leads to loyalty. This backs up theories that look at the psychological and experiential factors that make customers stay with a business for a long time. Even with these new ideas, the results have some problems that make them less useful and less applicable to other situations. First, it's hard to figure out cause-and-effect relationships or see how things change over time when you use a cross-sectional survey design. This means that longitudinal studies in the future could help us learn more about how trust, engagement, and technology change and affect loyalty over time (Ahmad et al., 2022). Second, the sample only included people who interacted with brands online, so it might not be as useful in offline or omnichannel settings. It should also be tested in places with different cultures and geography to make sure it works in a lot of different markets (Ahmed et al., 2022). The study also looked at the good parts of engagement. Future studies could look at the complexity of engagement by looking at customer behaviors that might be bad or mixed. Future research could look at more factors that mediate or moderate, such as how AI transparency affects trust and engagement (Chen et al., 2022; Prentice & Nguyen, 2020), customer satisfaction, or concerns about privacy and security. Also, studies that focus on certain industries, such as hospitality, retail, or financial services, would help us understand the factors that affect the relationship between loyalty and engagement. Adding qualitative methods might also help us understand better the psychological and emotional factors that affect how much people trust and use technology in their relationships with customers. In conclusion, this study shows that getting customers involved is important for keeping them loyal, especially when there are strong brand ties and good technology to help. Marketers and strategists should focus on building trust and investing in personalized, technology-driven ways to make the customer experience better in the digital age. This will help keep customers coming back to your brand.

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