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Customer Switching behavior in Quick Commerce: The Roles of Customer Forgiveness and Continuance Intention

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Abstract: Purpose: This study examines the relationships among switching intention, switching behavior, customer forgiveness, and continuance intention in quick commerce (Q-commerce) among IT professionals in Chennai, India. Design/methodology/approach: This quantitative, cross-sectional study used a structured questionnaire with a 7-point Likert scale. Data were obtained from 500 IT professionals aged 18-34 who had used at least one Q-commerce platform within the previous three months. A non-probability convenience sampling approach, supplemented by snowball recruitment for online distribution, was used. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0. Findings: All four hypothesized direct relationships were statistically significant. Switching intention was negatively associated with customer forgiveness ($\beta = -0.486$, $p < 0.001$), while customer forgiveness was positively associated with continuance intention ($\beta = 0.683$, $p < 0.001$). Switching intention was positively associated with switching behavior ($\beta = 0.588$, $p < 0.001$), whereas continuance intention was negatively associated with switching behavior ($\beta = -0.330$, $p < 0.001$). The model explained 61.1% of the variance in switching behavior. The sequential indirect effect through customer forgiveness and continuance intention was also significant ($\beta = 0.110$, $p < 0.001$), indicating complementary partial mediation. Because the data are cross-sectional, these findings are interpreted as associations rather than definitive causal effects. Research Limitations/Implications: The study is limited to IT professionals aged 18-34 in Chennai and uses non-probability sampling, which restricts generalizability. Future studies should examine other demographic groups and geographical contexts and use longitudinal or experimental designs to test the temporal sequence and causal interpretation of the proposed relationships.

Keywords: Digital Platforms, IT Professionals, PLS-SEM, Service Recovery, User Retention

1. Introduction

Quick commerce (Q-commerce) sector in India has experienced unprecedented growth, with the market estimated to reach US$10 billion by 2029, and represent a compound annual growth rate (CAGR) of 24.33% between 2024 and 2029. In addition, the number of people using Q-commerce in India is predicted to increase from 31.7 million in 2018 to 60.6 million in 2029, with a user penetration growth rate of 1.8% to 4.0% throughout this time. This rapid growth has been especially going on in urban centers like Chennai, Delhi, and Mumbai, where youngsters and IT professionals make upmajority of the primary user base, steered by their stipulation for convenience and instant gratification in their swift-paced lifestyles. Also, latest industry reports point out that Q-commerce platforms that provides delivery within 10-30 minutes have become the most preferred and sought after choice amongst the Gen-Z and millennial consumers, who prefer and put forth efficiency and seamless service delivery before anything (Mukhopadhyay, 2023). Besides this remarkable expansion, the Q-commerce industry comes across a very critical challenge: that is user retention, and research shows that e-commerce platforms, which includes Q-commerce services, experience significant user switching due to low conversion barriers and highly alike platform designs, making customer loyalty highly hard to maintain (Huang *et al.,* 2014; Dahabiyeh *et al.,* 2023).

Prevailing studies about the switching behavior focus on dissatisfaction, switching costs, and push-pull mechanisms. Meanwhile only limited attention has been given to relational mechanisms like customer forgiveness and continuance intention in Q-commerce settings. Also, empirical evidences from the Indian Q-commerce sector

are comparatively limited in spite of the industry's rapid growth. This study tries to address these gaps by examining the relationships among customer forgiveness, continuance intention, switching intention, and switching behavior among IT professionals using Q-commerce services in Chennai, India.

Rooted on the identified research gaps, this study aims to achieve four primary objectives, and to begin with, for examine the influence of switching intention on customer forgiveness. Based on cognitive consistency theory, stronger switching intention is expected to reduce customer forgiveness in the Q-commerce context, testing whether intentions to switch lead customers to bring down their readiness for forgiving service failures as a cognitive justification mechanism. Then secondly, to probe into the positive relationship between customer forgiveness and continuance intention, exploring whether forgiveness helps relationships to repair and strengthens commitment to the current service provider. Third, we need to determine if the intention to stay on the current platform acts as a switch barrier in order to examine the negative impact of continuance intention on switching behavior. Fourth, determine the baseline effect that is assumed to be hidden by the indirect customer channels by assessing the direct positive link between switching intentions and switching action forgiveness and continuance intention.

Achievement of all these objectives will contribute towards both theoretical advancement in understanding sequential mediation mechanisms consumer behavior and practical views for Q-commerce platform managers who are trying to lessen the customer churn through strategic interventions. In this study much contributions are made towards literature by integrating customer forgiveness, continuance intention, switching intention, and switching behavior inside a joint framework in the Q-commerce context. Additionally, it provides empirical evidence from the Indian digital retail environment.

2. Literature Review

2.1 Operational Definitions of Constructs

2.1.1 Switching Behavior (Dependent Variable)

The changing behavior implies to the actual act of discontinuing the use of a current service provider and migrating to an alternative provider (Bansal *et al.,* 2005; Ryu *et al.,* 2023), if taken in the context of Q-commerce, switching behavior is apparent when customers cut off using their basic Q-commerce platform (e.g., Swiggy Instamart, Zepto, or Blinkit) and actively commence patronizing a competing platform for their swift delivery requirements. The latest empirical research has operationalized switching behavior as a multi-dimensional construct encompassing three key indicators: the establishment of a new primary provider relationship, complete cessation of transactions with the incumbent provider, and initiation of transactions with an alternative provider (Ye *et al.,* 2022; Zhang *et al.,* 2023). In this specific study, the switching behavior is evaluated as the observable action of IT professionals transferring their Q-commerce patronage from their previously preferred platform to an entirely new platform current switching behavior tendencies and recent switching actions associated with the focal Q-commerce platform, mirroring actual behavioral change instead of just intention or consideration.

2.1.2 Switching Intention (Independent Variable)

Switching intention is the concept of cognitive state representing an individual's possibility or certainty of migrating from their current service provider into a new service provider in the immediate future (Bansal *et al.,* 2005; Lin & Hsieh, 2022). The construct also reflects customers' conscious deliberation and plan to cease their relationship with their incumbent service provider, steered by accumulated dissatisfaction, perceived superior alternatives, or wavering needs. The present research has founded the switching intention as a proximal antecedent to the intended switching behavior, with studies continuously showing notable positive relationships happening in between the two constructs across various service contexts including the banking, telecommunications, and digital platforms (Mehrabanioun, 2024; Jangir *et al.,* 2023). In the domain of Q-commerce, switching intention secures IT professionals' mental state in regard to their likelihood of leaving behind their current Q-commerce platform in favor of a new competitive service, measured through items assessing the probability, likelihood, and definiteness of switching decisions.

2.1.3 Customer Forgiveness (Mediating Variable)

Customer forgiveness is described as an obvious psychological process through which consumers could lessen positive emotions, forswear revenge intentions, and improve compassion towards a service provider following service failures or transgressions (Honora *et al.,* 2022; Ali *et al.*, 2023; Yoruk, 2025; Alnawas *et al.,* 2023). This built encompasses cognitive, affective, and behavioral components that in unisonshow a customer's readiness to reconstruct the relationship besides the inadequacies in the experiencing service. Most recent theoretical developments have underlined that forgiveness is not equal to forgetting the transgression or condoning poor service; but instead it represents a conscious decision for releasing resentment and maintain the relationship (Umar, 2023; Çelik *et al.,* 2024). Taken in the context of Q-commerce, where service failures namely late deliveries, incorrect orders, damaged productsare relatively common because of the complex nature of operations of ultra-fast fulfillment, customer forgiveness becomes a crucial mechanism for relationship maintenance.

2.1.4 Continuance Intention (Mediating Variable)

Continuance intention represents the user's psychological commitment and behavioral change to persist in using a current information system or service platform in the near future (Al-Emran *et al.,* 2020; Mehrabanioun, 2024). Rooted were in Expectation-Confirmation Theory (Bhattacherjee, 2001), continuance intention mirrors the post-adoption behavior in which users, having acquired enough experience with the service, create or formnew judgments regarding whether to continue or cease their usage relationship. Empirical research has established continuance intention as distinctive from initial adoption intention, as it integrates learning effects, satisfaction evaluations, and habit formation that develop through continued interaction with the service (Chaveesuk *et al.,* 2022; Fan & Jiang, 2024).

2.2 Conceptual Framework

In this study, the conceptual framework proposes an integrated relational model in which switching intention is the focal independent variable and is expected to be negatively associated with customer forgiveness and positively associated with switching behavior. Customer forgiveness is the first mediator and is expected to be positively associated with continuance intention. Continuance intention is the second mediator and is expected to be negatively associated with switching behavior. The framework therefore contains a direct pathway from switching intention to switching behavior and a sequential indirect pathway through customer forgiveness and continuance intention. Specifically, stronger switching intention is expected to correspond with lower customer forgiveness; lower forgiveness is expected to correspond with weaker continuance intention; and weaker continuance intention is expected to correspond with greater switching behavior. Because the study is cross-sectional, these directional hypotheses are tested as associations and do not by themselves establish temporal or causal ordering.

This ongoing study merges switching intention, customer forgiveness, continuance intention, and switching behavior inside a unified relational framework in the Q-commerce context. In the highly competitive digital retail ecosystems, switching intention simply shows customers' cognitive evaluation towards discontinuing a platform relationship, while customer forgiveness works as a relational recovery mechanism following service failures. Continuance intention subsequently represents the customer's post-recovery commitment toward maintaining the relationship. So, it is proved that the proposed framework explains switching behavior not as a direct result of dissatisfaction, but as a sequential relational process moulded by forgiveness and continuance mechanisms in digitally intensive service environments.

2.3 Hypothesis Development

2.3.1 Switching Intention and Customer Forgiveness (H1)

The existing relationship between switching intention and customer forgiveness could be understood in theory through the lens of cognitive consistency theory and justification mechanisms, so when customers form intentions to switch service providers, they tend to engage in cognitive processes that isspecifically designed for justifying and reinforce this decision, which usually involves the reduction of positive attitudes toward the incumbent provider while improving the positive evaluations (Bansal *et al.,* 2005). Customer forgiveness, that is representing a

positive relational disposition towards the service provider, becomes highly inconsistent with the decision to switch. Additionally, customers with stronger switching intentions are hypothesized to shows less levels of forgiveness as a means of maintaining cognitive consistency and justifying their actually intended departure.

Empirical evidence across service contexts is consistent with this negative relationship. In the banking sector, research has shown that customers with stronger switching intentions exhibit lower forgiveness for service failures, as they psychologically distance themselves from the incumbent institution (Umar, 2023). Perspectives from interpersonal relationship research provide additional insight: Finkel *et al.* (2002) argue that forgiveness depends partly on relationship commitment and future orientation, because individuals are more inclined to forgive when they envision a continued relationship. In service contexts, switching intention signals a weaker future orientation toward the incumbent provider, thereby reducing the motivation to forgive. Based on this theoretical reasoning and empirical evidence:

H1: Customer forgiveness is negatively influenced by switching intention.

2.3.2 Customer Forgiveness and Continuance Intention (H2)

The constructive relationship between customer forgiveness and continuance intention is rooted in relationship marketing theory and the service recovery literature. Forgiveness happens to act as a vital relationship repair mechanism that helps customers to travel beyond service failures and maintain their commitment to the service provider (Joireman *et al.,* 2013; Honora *et al.,* 2024; Yoruk, 2025). When customers forgive service transgressions, they release positive emotions, abandon retaliatory intentions, and restore positive affect toward the provider psychological states that provide continued patronage.

Theoretical mechanisms that are underlying in this relationship involve various interconnected psychological processes. First, forgiveness brings down cognitive dissonance by resolving the tension between past positive experiences and the desire to maintain the relationship, then second, forgiveness creates increased positive emotions (empathy, compassion, goodwill) that improves the quality and commitment of relationship. Third one is, forgiveness shows relationship investment customers who have invested their effort in forgiving, are more likely to be motivated to continue the relationship for justifying this emotional investment (Ali *et al.,* 2023). Specifically in Q-commerce, where service interactions are frequent and service failures are inevitable, and the capacity to forgive becomes a necessary one for relationship continuity. Therefore:

H2: Continuance intention in the Q-commerce context is positively influenced by customer forgiveness.

2.3.3 Continuance Intention and Switching Behavior (H3)

The negative relationship between continuance intention and switching behavior represents the contrary of the classical intention-behavior link in consumer behavior theory, and while switching intention predicts the actual switching, continuance intention functions as its exact opposite, predicting relationship maintenance and inhibiting switching behavior. This relationship is grounded in the Theory of Planned Behavior (Ajzen, 1991), which suggests that behavioral intentions are the most proximal determinant of actual behavior.

Strong empirical evidence supports this negative relationship across technology-adoption and service contexts. In information-systems research, stronger continuance intention is associated with continued use and, correspondingly, with lower discontinuation or switching tendencies (Limayem *et al.,* 2007). E-commerce studies likewise show that customers with stronger continuance intentions toward their current platform exhibit lower actual switching rates, even when attractive alternatives are available (Xu *et al.,* 2023; Dahabiyeh *et al.,* 2023). Mobile-banking research provides additional support by showing that continuance intention can function as a protective factor against customer defection (Khoa, 2021).

Conceptual mechanisms that may explain this negative relationship include several psychological and behavioral processes. First, continuance intention represents psychological commitment, which can create barriers to switching by increasing the perceived psychological costs of leaving the current provider. Second, continuance intention may reflect habit formation, whereby customers who plan to continue using the current platform develop routinized behaviors that are difficult to break. Third, continuance intention can reflect relationship investment and perceived switching costs, including the time, effort, and learning costs associated with migrating to a new platform

(Jones *et al.,* 2002; Chang *et al.,* 2017). In Q-commerce, established usage habits, saved preferences, and confidence in delivery reliability may make continuance intention particularly relevant. Thus:

H3: Switching behavior in the Q-commerce context is negatively influenced by continuance intention.

2.3.4 Switching Intention and Switching Behavior (H4)

Most studies on consumer behavior agree that there is a positive correlation between switching intention and switching behavior. Rootedfrom the Theory of Planned Behavior (Ajzen, 1991), this relationship posits that behavioral intentions are the immediate antecedent and strongest predictor of actual behavior. Switching intention clearly captures individuals' conscious decision and plan to cease their current service provider relationship and migrate to a substitute or replacement, which should translate directly into the observable action of switching when situational factors permit.

Extensive and vast meta-analytic evidence and empirical research across diverse service contexts have established strong support for this relationship (Jung *et al.,* 2017; Hsieh *et al.,* 2012), and in telecommunications, switching intentions have been shown to predict actual provider switching with a significant amount of accuracy (Keaveney, 1995; Rawis *et al.,* 2022). Banking research also shows similar patterns, with switching intentions acting as strong predictors of account closure and migration to competing financial institutions (Bansal *et al.,* 2005; Lin & Hsieh, 2022). E-commerce studies also confirm these findings, and show that platform switching intentions considerably predict actual platform migration behavior, specifically when switching costs are low and the alternatives are prepared and available (Ryu *et al.,* 2023; Ye *et al.,* 2022).

Theoretical mechanisms that are underlying in this positive relationship include several processes, if viewed in order, intention formation involves mental simulation and commitment to the behavioral course of action. Then second one is, switching intentions frequently reflects the accumulated dissatisfaction that has exceeded tolerance thresholds, and thirdly, in the context of digital platform, the transformation from switching intention to behavior is specifically effective because of the minimal physical and temporal hindrances. In the context of Q-commerce, the relationship is anticipated to be specifically strong because of low switching costs, various competing platforms, and IT professionals' high digital literacy. Therefore:

H4: Switching behavior in the Q-commerce context is positively influenced by switching intention.

All the four hypotheses stated above, jointly form the proposed conceptual framework, where H4 represents the direct positive effect of switching intention on switching behavior. But on the other side H1-H2-H3 together represent a sequential indirect pathway that partially mediates the relationship between switching intention and switching behavior.

3. Research Methodology

3.1 Research Design

This study made use of a quantitative research design with the help of cross-sectional survey methodology for examining the proposed integrated relational framework of switching behavior in Q-commerce, also quantitative research design was chosenfor its capacity to test the theoretical hypotheses, quantify relationships between variables, and provide general insights through statistical analysis (Creswell & Creswell, 2018). The cross-sectional approach facilitated the collection of data from a large sample at a single point in time, which is appropriate for evaluating relationships between variables while being pragmatic in terms of resource constraints (Saunders *et al.,* 2019). The research acquired a post-positivist paradigm, assuming that reality could be measured through objective instruments and that relationships between constructs could be empirically validated through hard and thorough statistical testing.

This study used a quantitative, cross-sectional correlational design to examine the proposed relational framework of switching behavior in Q-commerce. The design was selected to test directional hypotheses and estimate associations among the study constructs using statistical analysis (Creswell & Creswell, 2018). The cross-sectional approach enabled data collection from a large sample at a single point in time and is appropriate for examining associations among variables within practical resource constraints (Saunders *et al.,* 2019). The study adopted a post-

positivist perspective and used standardized measures and statistical testing. Because all constructs were measured contemporaneously, the results are interpreted as associations rather than definitive causal effects.

Information technology (IT) workers in Chennai, India, who were experienced in their fields and were within the age range of 18–34 (young adults according to the American Psychological Association, 2022) were the focus of this study usage of Q-commerce platforms. These IT professionals were particularly targeted because this demographic segment shows high-value Q-commerce users who are characterized by digital literacy, higher disposable incomes, time-scarcity because of demanding work schedules, and frequent usage of technology-enabled services (Mukhopadhyay, 2023). The frequent interaction with app-based delivery platforms and digitally intensive lifestyles turns them into a suitable segment for examining switching-related behavioral mechanisms in Q-commerce environments. So its understood that, IT professionals present a theoretically relevant context for understanding customer forgiveness, continuance intention, and switching behavior in digital service ecosystems.Chennai was chosen as the geographical location as it has the status of major IT hub in India with high penetration of Q-commerce and the presence of various platforms that compete each other (Swiggy Instamart, Zepto, Blinkit, Dunzo, BB Daily).

Because no comprehensive sampling frame was available for all IT professionals in Chennai who use Q-commerce services, the study used a non-probability convenience sampling strategy (Etikan *et al.,* 2016). Online recruitment was additionally supplemented by snowball distribution through professional networks. An a priori power analysis using G*Power indicated a minimum sample size of 129 for 0.80 statistical power to detect a medium effect size ($f^2 = 0.15$) at $\alpha = 0.05$. To allow for incomplete or invalid responses and to improve the stability of PLS-SEM estimates, the study targeted at least 400 usable responses. Ultimately, 512 responses were collected and 500 were retained for analysis.

Data collection occurred over two months (September to October 2025) using both online and offline survey administration. Online data collection used Google Forms distributed through LinkedIn, IT-professional community groups, and professional contacts, with some further dissemination through snowball recruitment. Offline data collection involved approaching IT professionals in technology parks and office campuses in Chennai with printed questionnaires during appropriate break periods. Respondents were screened using three eligibility criteria: (1) current employment in the IT sector, (2) age between 18 and 34 years, and (3) use of at least one Q-commerce platform within the previous three months. A total of 512 responses were collected, of which 500 were complete and valid for analysis, corresponding to a usable-response proportion of 97.7%. The final sample included representation across the age categories within the eligible 18-34 range, genders, income groups, and Q-commerce platforms.

Before answering the questionnaire, respondents were instructed to identify one focal Q-commerce platform that they currently used or had used recently and to answer all construct items with reference to that same platform. Switching-intention and continuance-intention items therefore referred to respondents' present intentions toward the focal platform, while switching-behavior items referred to recent actions involving movement away from that focal platform toward an alternative. This common reference point was intended to reduce construct-reference ambiguity. Given the cross-sectional design, however, the relationships among switching intention, customer forgiveness, continuance intention, and switching behavior should be interpreted as contemporaneous associations rather than strict temporal or causal sequences.

3.3 Design and Measurements

All measurement scales used in this study were taken or acquired from previously validated instruments that were reported in high-quality peer-reviewed journals for ensuring the content validity and reliability. Minor corrections and changes were also made to contextualize the items particularly for Q-commerce services.

Switching Intention was evaluated or quantified by employing four items that were adapted from Bansal *et al.* (2005) and Lin and Hsieh (2022). Sample paraphrases included: "I consider to switch to another Q-commerce platform in the immediate future," "I am more likely to use another Q-commerce platform for my next order," "I have seriously considered a switch to a competing Q-commerce platform," and "I plan to switch from my primary Q-commerce platform soon."

Customer Forgiveness was assessed using six items adapted from Honora *et al.* (2022) and Ali *et al.* (2023), covering cognitive, affective, and behavioral dimensions. Representative items included: "I have let go of my negative

feelings about the service failures I experienced," "I no longer feel anger over the problems I previously encountered with this Q-commerce platform," "I have forgiven this platform for its service issues," "I am ready to give this platform another chance despite past problems," "I do not hold a grudge against this platform," and "I understand that service failures can sometimes occur, and I forgive the platform."

Continuance Intention was measured using four items adapted from Bhattacherjee (2001) and Al-Emran *et al.* (2020), specifically tailor made to Q-commerce contexts. Sample items sounded like: "I think about continuing the usage of this Q-commerce platform instead of discontinuing its use," "My intention is to continue using this Q-commerce platform instead of jumping to use any alternative means," "If I could, I would like to continue the usage of this Q-commerce platform," and "I plan to continue using this Q-commerce platform in the future."

Switching Behavior was evaluated using three items adapted from Ryu *et al.* (2023) and Ye *et al.* (2022), and it focuses on actual behavioral actions, the items were as follows: "I have started using an alternative Q-commerce platform rather than using my previous one already," "I have switched my primary Q-commerce platform to their competing service," and "I have ceased the usage of my previous Q-commerce platform and now use a different one regularly." Respondents were instructed to evaluate all items with respect to the same focal Q-commerce platform that they currently use or recently used.

All items were measured using a 7-point Likert scale that ranged from 1 (strongly disagree) to 7 (strongly agree), and the 7-point Likert scale was selected based on the methodological research that demonstrated that 7-point scales provided optimal balance between granularity and respondent burden, further providing sufficient variance for sophisticated statistical analyses all the while maintaining ease of comprehension (Finstad, 2010; Revilla *et al.,* 2014). In addition to this, 7-point scales have been shown to produce higher reliability coefficients when compared to 5-point scales, and make them particularly appropriate for structural equation modeling applications (Nunnally & Bernstein, 1994), also the survey instrument was pilot-tested with 30 IT professionals for assessing clarity, comprehension, and appropriateness, with few small wording adjustments made based on their feedback.

3.4 Statistical Technique and Tools

Data analysis was done using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software (Ringle *et al.,* 2022). For many methodological reasons, PLS-SEM was selected as the principal and fundamental analysis tool. First, PLS-SEM is specifically well-suited for exploratory research and theory development, which goes hand in hand with the newconceptual framework that was proposed in this study (Hair *et al.,* 2022). Secondly, PLS-SEM does not call for any data to meet the strict parametric assumptions like multivariate normality, making it even more tough and strong for analyzing data that mayshow non-normal distributions that are common in social science research (Sarstedt *et al.,* 2022). Third one is, PLS-SEM performs effectively with smaller sample sizes incomparison to covariance-based SEM (CB-SEM), and needs minimum sample sizes of 10 times the largest number of structural paths directed at a specific construct in the model (Hair *et al.*, 2019), then fourth, PLS-SEM is obviously designed to expand the explained variance in endogenous constructs, making it appropriate for predictive research focused on explaining target constructs a key objective of this study (Rigdon, 2012). Lastly, Fifth, PLS-SEM handles complex models with multiple mediators effectively, which is necessarily important given the sequential mediation structure hypothesized in this research (Nitzl *et al.,* 2016).

The PLS-SEM analysis proceeded in two stages following the clearly established protocols (Hair *et al.,* 2022; Henseler *et al.,* 2016). In the first step, we made sure the constructions were reliable and valid in order to measure trust assessment. As part of this process, we checked for construct strength using Cronbach's alpha, rho_a, and rho_c; we checked for convergent validity using AVE; we checked for discriminant validity using HTMT and Fornell-Larcker; and lastly, we checked for multicollinearity using VIF values. Step 2 involved the evaluation of the structural model (inner model) to test the hypothesized relationships, which included examination of path coefficients and their statistical significance using bootstrapping with 5,000 subsamples, evaluation of the coefficient of determination (R^2), assessment of effect sizes (f^2) following Cohen's (1988) guidelines, and evaluation of approximate model fit using multiple indices, which included Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI).

Many procedural remedies were obtained for reducing common method bias (Podsakoff *et al.,* 2003), and Respondents were given the guarantee that their information will be treated with the utmost discretion and secrecy.

Thorough pilot testing and careful wording of the questionnaire items preceded the final delivery. Additionally, the results showed that common method bias was unlikely to have a substantial impact, according to Harman's single-factor assessment.

4. Results

4.1 Assessment of the Measurement Model

The measurement model, figure 1 which is also referred to as the outer model, was assessed to confirm that the indicators reliably and validly measure their respective latent constructs (Hair *et al.,* 2022), also the assessment focused on four key constructs: internal consistency reliability, convergent validity, discriminant validity, and multicollinearity.

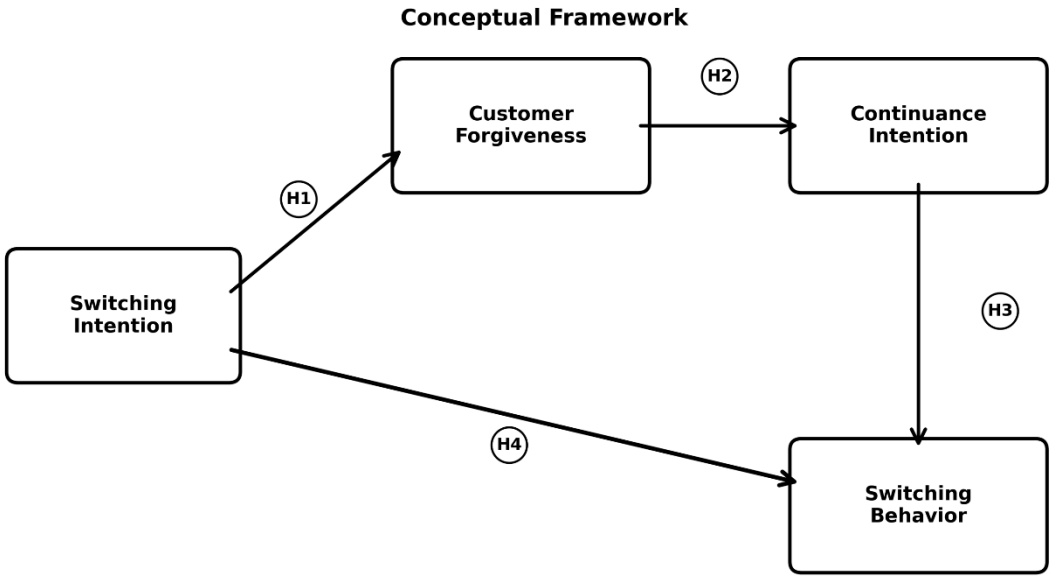


Figure 1. Measurement Model.

4.1.1 Internal Consistency Reliability

Internal consistency reliability evaluates whether the items measuring a construct are being consistent in their measurement (Hair *et al.,* 2019). Table 1 presents the reliability statistics for all of the constructs. As displayed in Table 1, all the constructs went above the recommended threshold of 0.70 for Cronbach's alpha (Nunnally & Bernstein, 1994), with values hanging from 0.856 to 0.904, and these results points out the excellent internal consistency across all measures.

Table 1. Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Continuance Intention	0.879	0.881	0.879	0.646
Customer Forgiveness	0.904	0.904	0.904	0.610
Switching Behavior	0.856	0.857	0.856	0.665
Switching Intention	0.898	0.900	0.898	0.689

Composite reliability (rho_c) values, which provides a more precise assessment of reliability in PLS-SEM as they show accountability for the different outer loadings of indicator variables (Hair *et al.,* 2022), ranging from 0.856 to 0.904, all crossing the 0.70 threshold (Bagozzi & Yi, 1988). In addition to this, composite reliability (rho_a), which is considered superior to Cronbach's alpha as it does not assume equal indicator loadings (Dijkstra & Henseler, 2015), showed values between 0.857 and 0.904, which further attests to the strong internal consistency. These results provide strong evidence that all constructs meet the first quality requirement for measurement models, which is high levels of dependability in terms of internal consistency.

4.1.2 Convergent Validity

The AVE values presented in Table 1 ranged from 0.610 to 0.689, all exceeding the recommended minimum threshold of 0.50 (Bagozzi & Yi, 1988; Hair *et al.,* 2022), which points out that each and every construct elaborates more than 50% of the variance in its indicators, showing enough convergent validity. Convergent validity evaluates the extent to which indicators of a construct converge or share a high proportion of variance (Hair *et al.,* 2019), and this was evaluated through Average Variance Extracted (AVE), which represents the mean variance extracted by the construct's indicators (Fornell & Larcker, 1981). The highest AVE was recorded for Switching Intention (0.689), and suggested that its indicators share substantial common variance, Customer Forgiveness still shows to have an AVE over the approval requirement, with a minimum of 0.610. Our findings provide more evidence that the dimensions meet the requirements for convergent validity. Each indicator's outside loadings were greater than 0.70, indicating a satisfactory level of reliability. There was no elimination of items from the model because all indicators displayed loaded values.

Table 2. Outer Loadings of Measurement Items

Construct	Item	Outer Loading	t-value	p-value
Customer Forgiveness	CF1	0.762	21.754	0.000***
	CF2	0.821	26.213	0.000***
	CF3	0.769	23.456	0.000***
	CF4	0.788	22.358	0.000***
	CF5	0.784	24.529	0.000***
	CF6	0.761	23.015	0.000***
Continuance Intention	CI1	0.735	23.174	0.000***
	CI2	0.818	28.5	0.000***
	CI3	0.837	29.906	0.000***
	CI4	0.822	32.04	0.000***
Switching Behavior	SB1	0.792	32.225	0.000***
	SB2	0.831	33.757	0.000***
	SB3	0.822	31.135	0.000***
Switching Intention	SI1	0.82	27.956	0.000***
	SI2	0.886	35.495	0.000***
	SI3	0.778	26.411	0.000***
	SI4	0.832	28.793	0.000***

Each indicator's outer loading value is displayed in Table 2. Indicator loading levels above the minimum requirement of 0.70, ranging from 0.735 to 0.886. The indicator's reliability and convergent validity are sufficiently demonstrated. Each indicator significantly contributed to measuring their respective latent constructs, as all t-values were significant at $p < 0.001$. Nothing was removed from the model because every indicator fulfilled the suggested retention criterion.

Results showed that all indicators loaded higher on their related constructs than on other constructs, thus giving acceptable construct distinctiveness, and this was further supported by cross-loading analyses, which were used to evaluate the indicator-level discriminant validity.

4.1.3 Discriminant Validity

Discriminant validity makes assessment about the extent to which a construct is empirically distinctive from other constructs in the model (Hair *et al.,* 2022), so here two complementary approaches were used: the HQ²eterotrait-Monotrait (HTMT) ratio criterion and the Fornell-Larcker criterion.

4.1.3.1 HTMT Ratio

The HTMT ratio is considered to be a superior method for assessing discriminant validity in PLS-SEM as it jumps over the hurdles and hindrances of traditional approaches (Henseler *et al.,* 2015). Table 3 shows the HTMT ratio matrix.

According to Henseler *et al.* (2015), HTMT values should be below 0.85 for emphirically similar constructs and below 0.90 for conceptually distinct constructs, and as demonstrated in Table 2, all HTMT values fall below the conservative threshold of 0.85, with the highest value being 0.721 (between Switching Intention and Switching Behavior), so this above finding confirms that all constructs are empirically different from one another, and thereby establish discriminant validity.

Reliability intervals for HTMT were tested using bootstrapping techniques. As a result, all constructs had sufficient discriminant validity, since no confidence interval included the value of 1.0.

Table 3. Discriminant Validity – HTMT Ratio Matrix

	Continuance Intention	**Customer Forgiveness**	**Switching Behavior**
Continuance Intention			
Customer Forgiveness	0.683		
Switching Behavior	0.565	0.615	
Switching Intention	0.399	0.485	0.721

4.1.3.2 Fornell-Larcker Criterion

This Fornell-Larcker criterion provides an extra added assessment of discriminant validity by comparing the square root of AVE for each construct with its correlations with other constructs (Fornell & Larcker, 1981). To establish ex post facto discriminant validity, the square root of AVE needs to be greater than the correlations between a certain construct and other constructs.

Table 4 shows that all constructs met the Fornell-Larcker criterion since the square root of AVE (the bolded diagonal parts) was larger than the off-diagonal correlations of the other constructs. As an example, the square root of AVE for Continuance Intention (0.804) was larger than that of Customer Forgiveness (0.683), Switching Behavior (-0.566), and Switching Intention (-0.401). This finding lends credence to the claim that the other constructs, beyond this pattern, are discriminant valid.

Table 4. Discriminant Validity – Fornell-Larcker Criterion

	Continuance Intention	**Customer Forgiveness**	**Switching Behavior**	**Switching Intention**
Continuance Intention	0.804			
Customer Forgiveness	0.683	0.781		
Switching Behavior	-0.566	-0.615	0.816	
Switching Intention	-0.401	-0.486	0.721	0.830

Note: Diagonal values (in bold) represent the square root of AVE

4.1.4 Multicollinearity Assessment

Multicollinearity among predictor constructs can inflate standard errors and lead to unstable parameter estimates (Hair *et al.,* 2019). One way to check for multicollinearity was to compute the Variance Inflation Factor (VIF). For each indicator in each of the four categories, Table 5 shows the VIF values.

Hair *et al.* (2022) recommend Me that VIF values should be less than 3.0 for indicator-level evaluation in PLS-SEM, with values below 5.0 being acceptable, and as it is evident in Table 4, all VIF values ranged from 2.040 to 2.794, below the conservative threshold of 3.0. The highest VIF value was observed for SI2 (2.794), It has a satisfactory degree of collinearity. Indicator uniqueness is strong, with SB2 having the lowest VIF value at 2.040. The VIF results indicate that there is little need for concern about multicollinearity across all four constructs:

Customer Forgiveness (CF): VIF range = 2.049 to 2.276 (Mean = 2.182)

Continuance Intention (CI): VIF range = 2.059 to 2.338 (Mean = 2.223)

Switching Behavior (SB): VIF range = 2.040 to 2.272 (Mean = 2.146)

Switching Intention (SI): VIF range = 2.278 to 2.794 (Mean = 2.515)

The above results confirm that multicollinearity is not a concern in the measurement model, as all the resulting VIF values are less than the threshold of 3.0 (Hair *et al.,* 2022), and each indicator contributes distinctdifferences to its respective construct without excessive overlapping with other indicators. The no show of multicollinearity confirms that the parameter estimates in both the measurement and structural models are stable and reliable (Kock & Lynn, 2012).

Table 5. Collinearity Statistics (VIF) for All Indicators

Indicator	VIF
CF1	2.209
CF2	2.177
CF3	2.276
CF4	2.049
CF5	2.170
CF6	2.259
CI1	2.174
CI2	2.059
CI3	2.338
CI4	2.322
SB1	2.127
SB2	2.040
SB3	2.272
SI1	2.534
SI2	2.794
SI3	2.278
SI4	2.453

Note: CF = Customer Forgiveness (6 items), CI = Continuance Intention (4 items), SB = Switching Behavior (3 items), SI = Switching Intention (4 items). Total indicators = 17.

4.2 Structural Model

4.2.1 Explained Variance (R^2)

The coefficient of determination (R^2) represents the proportion of variance in an endogenous construct explained by its predictor constructs (Hair *et al.,* 2022). Table 6 presents the R^2 values for the endogenous constructs in the model.

According to Cohen's (1988) guidelines for behavioral research, R^2 values of 0.26, 0.13, and 0.02 are considered substantial, moderate, and weak, respectively. In the current study, the model explained 61.1% of the variance in Switching Behavior, indicating substantial explanatory power. The direct predictors of Switching Behavior are Switching Intention and Continuance Intention; Customer Forgiveness contributes indirectly through Continuance Intention. The model also explained 46.7% of the variance in Continuance Intention and 23.6% of the variance in Customer Forgiveness. These results indicate meaningful explanatory power for the endogenous constructs. Stone-Geisser's Q^2 values obtained through blindfolding were greater than zero for all endogenous constructs, indicating predictive relevance. PLSpredict was also used to examine out-of-sample predictive performance.

PLSpredict study confirmed the model's predictive significance by demonstrating satisfactory out-of-sample predictive capacity for the endogenous constructs.

Table 6. Explained Variance (R^2)

Construct	R^2	R^2 Adjusted
Continuance Intention	0.467	0.466
Customer Forgiveness	0.236	0.234
Switching Behavior	0.611	0.610

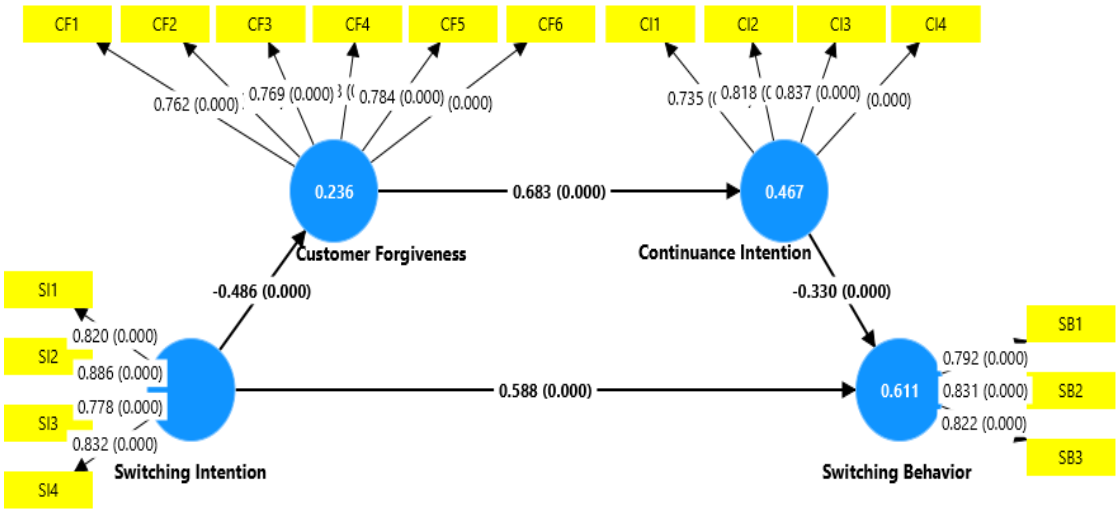


Figure 2. Structural Model with Path Coefficients.

The evaluation of the measuring model was successful in meeting the majority of the requirements. The significance levels of Cronbach's alpha, rho (a), and rho (c) were all higher than 0.85, indicating remarkable internal reliability. All AVE values were more above 0.50, demonstrating convergent validity, which ranged from 0.610 to 0.689. There was evidence of discriminant validity using the Fornell-Larcker criterion and HTMT values (all <0.85). With all VIF values being less than 3.0, the evaluation of the measurement model demonstrated that multicollinearity was not a concern. These findings demonstrate that the measurement instruments' validity and reliability were well-supported by the evaluation of the measurement model. Evaluation of the structural model is shown in figure 2.

Following the confirmation of measurement model quality, the structural model was assessed to test the hypothesized relationships between constructs. The structural model, which can also be referred to as the inner model, evaluates the importance and magnitude of path coefficients between constructs (Hair *et al.,* 2022).

4.2.2 Path Coefficients and Hypothesis Testing

Path coefficients stand for the strength and direction of relationships between constructs (Hair *et al.,* 2019), and the significance of path coefficients was assessed using bootstrapping with 5,000 subsamples, as recommended by Hair *et al.* (2022). Table 6 which will be presented below would show the results of the structural model analysis.

All four hypothesized paths were statistically notable at the $p < 0.001$ level, which provides strong support for the proposed relationships, as in table 7.

H1 predicted a negative influence of switching intention on customer forgiveness, and this hypothesis was well supported ($\beta = -0.486$, $t = 13.553$, $p < 0.001$). The negative and significant path coefficient points out that when Q-commerce users form stronger intentions to switch providers, they show lower levels of forgiveness towards their current provider, and this finding coordinates with the justification mindset theoretical framework, which suggests that customers reduce forgiveness as a cognitive strategy for rationalizing their decision to switch.

Hypothesis 2 (H2) suggests that customer forgiveness positively influences continuance Customers are significantly more likely to intend to continue using their Q-commerce provider when they forgive them for past service failures, as indicated by the strong support for this hypothesis ($\beta = 0.683$, $t = 25.094$, $p < 0.001$). This relationship is the strongest in the model. This confirms what we already knew from the literature on forgiveness: that it opens the door for relationship repair and reconciliation.

Hypothesis 3 (H3) proposed that continuance intention negatively influences switching behavior, and this hypothesis was supported ($\beta = -0.330$, $t = 9.031$, $p < 0.001$). The negative relationship affirms that customers who have high intentions in continuing using their current Q-commerce provider are less likely to engage in actual switching behavior, and this further validates the classical intention-behavior link in the opposite direction, where continuance intention behaves as a protective factor against switching.

Hypothesis 4 (H4) this hypothesis was strongly supported by the data ($\beta = 0.588$, $t = 18.055$, $p < 0.001$), which indicated a favorable direct link between switching intention and switching behavior. The direct, impulsive route from intention to action is represented by switching behavior, which is strongly predicted by switching intention (as shown by this strong positive coefficient). In line with the principle of planned behavior, the large value of this coefficient (0.588) further indicates that this is the model's dominating path.

Table 7. Path Coefficients and Hypothesis Testing

Hypothesis	Path	Path Coefficient (β)	Standard Deviation	t-statistic	p-value	Decision
H1	SI → CF	-0.486	0.036	13.553	0.000***	Supported
H2	CF → CI	0.683	0.027	25.094	0.000***	Supported
H3	CI → SB	-0.330	0.037	9.031	0.000***	Supported
H4	SI → SB	0.588	0.033	18.055	0.000***	Supported

Note: ***$p < 0.001$; SI = Switching Intention, CF = Customer Forgiveness, CI = Continuance Intention, SB = Switching Behavior

4.2.3 Effect Size (f^2)

Effect size (f^2) evaluates the substantial effect of predictor constructs on endogenous constructs by assessing the change in R^2 when a specific predictor construct is removed from the model (Cohen, 1988). And by following Cohen's (1988) guidelines, f^2 values of 0.02, 0.15, and 0.35 display small, medium, and large effects, respectively.

A strong effect size ($f^2 = 0.876$) on continuation intention was seen for customer forgiveness (Table 8), suggesting that forgiveness is a more significant factor in influencing continuation intents. Similar to how the model predicted a high direct effect, switching intentions had a sizable impact on switching behaviors ($f^2 = 0.747$).

Customer Forgiveness was also moderately to strongly affected by Switching Intention ($f^2 = 0.309$), but Continuance Intention had a medium effect ($f^2 = 0.235$) on Switching Behavior. These results show that all predictor constructs have meaningful substantive effects on their respective resulting variables, beyond any mere statistical significance.

Table 8. Effect Size (f^2)

Path	f^2	Effect Size
SI → CF	0.309	Medium-to-Large
CF → CI	0.876	Large
CI → SB	0.235	Medium
SI → SB	0.747	Large

Note: SI = Switching Intention, CF = Customer Forgiveness, CI = Continuance Intention, SB = Switching Behavior

4.2.4 Model Fit Assessment

The overall model fit was examined using multiple fit indices those were recommended for PLS-SEM analysis (Henseler *et al.,* 2014; Hu & Bentler, 1999). Table 9 demonstrates the model fit statistics.

The Standardized Root Mean Square Residual (SRMR) evaluates the average discrepancy between observed and model-implied correlations (Henseler *et al.,* 2014). The saturated model (SRMR = 0.026) and estimated model (SRMR = 0.039) were both below the commonly used 0.08 threshold (Hu & Bentler, 1999), indicating acceptable approximate fit. The Normed Fit Index (NFI) values for the saturated and estimated models (0.968 and 0.964, respectively) were above 0.90 (Bentler & Bonett, 1980). These indices provide supportive evidence of acceptable model fit; they should not be interpreted as proof of exact fit.

Table 9. Model Fit Indices

Fit Index	Saturated Model	Estimated Model	Recommended Threshold
SRMR	0.026	0.039	< 0.08 (Hu & Bentler, 1999)
d_ULS	0.106	0.230	-
d_G	0.066	0.075	-
Chi-square	173.243	192.534	-
NFI	0.968	0.964	> 0.90 (Bentler & Bonett, 1980)

All four hypothesized direct paths were statistically significant at $p < 0.001$, with effect sizes ranging from medium to large. The model explained 61.1% of the variance in switching behavior ($R^2 = 0.611$). The direct-path results support the proposed pattern of associations, while the indirect mechanism is evaluated separately in the sequential mediation analysis below.

Sequential mediation was examined using bootstrapping with 5,000 resamples. The specific indirect effect from Switching Intention → Customer Forgiveness → Continuance Intention → Switching Behavior was estimated and tested with a bias-corrected confidence interval.

4.2.5 Sequential Mediation Analysis

The direct effect of switching intention on switching behavior remained positive and significant after inclusion of the mediators ($\beta = 0.588$, $p < 0.001$), as in table 10. The sequential indirect effect through customer forgiveness and continuance intention was also positive and significant ($\beta = 0.110$, $p < 0.001$; 95% bias-corrected CI [0.080, 0.141]). Because the direct and sequential indirect effects were both significant and operated in the same overall direction, the findings indicate a significant sequential indirect effect with complementary partial mediation.

Thus, switching intention is associated with switching behavior both directly and indirectly through customer forgiveness and continuance intention. Given the cross-sectional design, this mediation pattern should be interpreted as a statistical indirect association rather than definitive evidence of temporal causation.

Table 10. Testing of Sequential Mediation Relationships

Effect Type	Path	β (Original Sample)	t-value	p-value	95% Bias-Corrected CI	Interpretation
Direct Effect	SI → SB	0.588	18.055	0.000***	[0.520, 0.647]	Significant
Sequential Indirect Effect	SI → CF → CI → SB	0.11	7.025	0.000***	[0.080, 0.141]	Significant
Total Effect	SI → SB	0.698	—	0.000***	—	Significant
Mediation Type	Complementary Partial Mediation	—	—	—	—	Supported

Note: SI = Switching Intention; CF = Customer Forgiveness; CI = Continuance Intention; SB = Switching Behavior. ***p < 0.001

5. Discussion and Implications

5.1 Discussion

The findings indicate that customer forgiveness and continuance intention are two important relational mechanisms associated with switching behavior in the Q-commerce context. Stronger switching intention was associated with lower customer forgiveness; lower forgiveness was associated with weaker continuance intention; and weaker continuance intention was associated with greater switching behavior. These relationships are consistent with the proposed sequential framework, although the cross-sectional design does not establish temporal causality.

5.1.2 Statement of Main Results and Key Findings

The positive association between customer forgiveness and continuing intention is the most significant finding of this study (β = 0.683, f^2 = 0.876). This finding, which represents the biggest effect size in the model, suggests that forgiving is more than just a passing fancy a simply a peripheral factor in service recovery but instead it is a central mechanism that basically decides whether customers will continue patronizing Q-commerce providers. This finding extends the existing forgiveness literature, which has basically focused on forgiveness as a result of service recovery efforts (Honora *et al.,* 2024; Yoruk, 2025), by placing it as a critical mediating variable that channels the impacts of switching intentions into continuance decisions.

The second important finding concerns the moderate negative effect of switching intention on customer forgiveness (β = -0.486, f^2 = 0.309), and this relationship confirms theoretical predictions from cognitive consistency theory, then demonstrate that customers strategically modulate their forgiveness levels in order to coordinate with their switching decisions. When customers form new intentions to switch, they tend to engage in psychological processes that reduces forgiveness, and thereby justify their decision and reducing cognitive dissonance, and finally this finding provides empirical support for the justification mechanism theorized in the switching behavior literature.

Thirdly, switching intention significantly influences switching behavior positively (β = 0.588, f^2 = 0.747). Even after accounting for a number of mediators, such as the customer's forgiveness and continuing intention, the intents to switch still significantly predict the actual behavior to switch.

The fourth key finding is that the meaningful negative effect of continuance intention on switching behavior (β = -0.330, f^2 = 0.235), and this relationship displays that continuance intention works as a protective factor, and create psychological and behavioral barriers to switching.

5.1.4 Comparison with Other Studies

The strong positive relationship between customer forgiveness and continuance intention identified in this study (β = 0.683) goes beyond effect sizes that are reported in comparable research. Wei *et al.* (2022) reported a correlation of 0.54 between forgiveness and repurchase intention in online shopping contexts. The stronger the relationship observed is in this study, it might reflect the unique characteristics of Q-commerce, where frequent service interactions make various new opportunities for forgiveness to work as a relationship maintenance mechanism.

The negative relationship between continuance intention and switching behavior coordinates with information systems continuance literature (Limayem *et al.,* 2007) and mobile banking research (Khoa, 2021). However, the effect size observed in this study (β = -0.330) is moderate compared to some prior research reporting correlations exceeding -0.50. This suggests that in highly competitive Q-commerce markets with numerous alternatives, continuance intention may be a necessary but not sufficient condition for preventing switchingexternal factors such as competitive promotions and alternative attractiveness may override continuance intentions more easily than in contexts with fewer alternatives or higher switching barriers.

5.1.5 Explanation of Results through Theoretical Integration

The resulting findings of this study could be comprehensively explained through the synthesis of three theoretical frameworks: the Theory of Planned Behavior (TPB), cognitive consistency theory, and relationship marketing principles.

From the perspective of TPB (Ajzen, 1991), the strong positive relationship between switching intention and behavior (H4) reflects the fundamental assumption that behavioral intentions are proximal determinants of actual behavior, whereas in Q-commerce contexts, this relationship is particularly strong because the behavioral pathway from intention to action brings in minimal obstacles no contracts to terminate, no physical locations to visit, and alternative platforms that are readily accessible through simple app downloads. The low switching costs characteristic of digital platforms removes the traditional limitations and hindrances that often weakens the intention-behavior relationships in offline service contexts.

Cognitive consistency theory (Festinger, 1957) describes the negative relationship between switching intention and customer forgiveness (H1), and when customers device new intentions to switch, they experience cognitive dissonance if they simultaneously maintain positive attitudes (such as forgiveness) toward the incumbent provider. To bring down this psychological discomfort, customers engage in attitude adjustment, choosily reducing forgiveness to create psychological consistency between their cognitions (positive evaluation of the provider) and their intentions (to switch). This mechanism solely stand for a form of motivated reasoning where customers rebuild their relationship with the provider for justifying their switching decision.

Relationship marketing theory underlines the positive relationship between customer forgiveness and continuance intention (H2), and forgiveness functions as a mechanism to repair relationship that regains the positive affect, trust, and commitment following any prior service failures. When customers try to forgive, they possibly signal to themselves about their readiness to give the relationship another chance, which shows as strengthened continuance intentions.

Customers those who maintain high forgiveness besides their switching intentions go through strengthened continuance intentions that crushes the translation of switching intention into behavior. On contrary to this, customers who let of abide by their switching intentions to erase their forgiveness experience increased their progression toward actual switching, and this specific mechanism explains heterogeneity in switching behavior amongst the customers with same level of dissatisfaction or switching intentionthe key differentiator is the extent to which they engage the forgiveness-continuance pathway.

5.2 Implications

Q-commerce platforms should strengthen customer retention through faster complaint handling, improved delivery reliability, transparent compensation policies, and personalized recovery strategies. Monitoring customer forgiveness and continuance intention may help firms identify customers who are at greater risk of switching to competing platforms.

6. Limitations and Future Research

6.1 Limitations

It is important to note that this study has numerous limitations. To start with, it's not possible to generalize the findings to all Q-commerce customers due to the convenience sampling. The demographic homogeneity of the sample indicates that the individuals included are generally similar to one another. This does not represent the vast

majority of Q-commerce users, who span generations and occupations, and who do not possess the requisite computer abilities; instead, it focuses on affluent young individuals. Two, we can't draw firm causal conclusions or see the big picture of how switching behavior develops over time because the study was cross-sectional. Statistical studies have shown that common method bias is minimal, but as all data were obtained by self-report measures, it is possible that it still influences the results. Fourth, operational elements such as delivery reliability, stock-out experience, promotional intensity, and perceived switching costs are not included in the base study; instead, the focus is on relational and psychological characteristics. (forgiveness, continuance intention) while overlooking important contextual factors such as competitive intensity, promotional offers, social influence, and switching costs that may moderate the relationships examined. Fifth, the research was conducted in the Indian Q-commerce market, which has unique characteristics (high growth, intense competition, developing regulatory environment) that may limit generalizability to more mature or regulated markets.

Because all variables were measured simultaneously through a cross-sectional survey, temporal ordering among switching intention, customer forgiveness, continuance intention, and switching behavior cannot be conclusively established. Future studies should employ longitudinal designs to validate the proposed causal sequence.

6.2 Future Research Directions

These restrictions should guide future research to alternate pathways. First, longitudinal consumer tracking research would strengthen causality. These studies would also assist researchers understand how service experiences affect forgiveness, service retention, and customer service switching. Secondly, experimental designs that manipulate forgiveness (through service recovery interventions) or switching intentions (through competitor promotions) would actually embolden the causal inferences. Third, studies should evaluate moderating variables like relationship length, service failure severity, competitive intensity, and customer characteristics (age, digital literacy, income) for identifying the boundary conditions of the integrated relational framework. Fourth, research should extend towards the model to other demographic segments (older adults, non-professionals, lower-income consumers) and geographic contexts (rural areas, international markets, and developed economies) to assess the generalizability. Fifth, qualitative research using interviews and case studies could provide deeper insights into the psychological processes underlying in the forgiveness-continuance-switching nexus. Sixth, any future studies should integrate behavioral data (actual transaction records, app usage patterns) alongside the self-report measures to triangulate findings and reduce common method limitations.

7. Conclusion

This study examined how switching intention, customer forgiveness, and continuance intention are associated with switching behavior in quick commerce among IT professionals in Chennai, India. Using PLS-SEM on data from 500 respondents, the study provides empirical support for an integrated relational framework combining service-recovery, continuance, and switching-behavior perspectives.

The findings indicate two concurrent statistical pathways linking switching intention with switching behavior. The direct association between switching intention and switching behavior was positive ($\beta = 0.588$), consistent with the Theory of Planned Behavior. A significant sequential indirect association was also observed through customer forgiveness and continuance intention ($\beta = 0.110$): stronger switching intention was associated with lower customer forgiveness ($\beta = -0.486$), customer forgiveness was positively associated with continuance intention ($\beta = 0.683$), and continuance intention was negatively associated with switching behavior ($\beta = -0.330$). Together, the model explained 61.1% of the variance in switching behavior. Because all variables were measured cross-sectionally, the findings support the proposed pattern of associations but do not establish temporal or causal ordering.

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Author Contribution Statement

Ramya Senthil: Conceptualization, Methodology, Investigation, Data Curation, Formal Analysis, Visualization, Writing – Original Draft, Writing – Review & Editing. Thangaraja Arumugam: Conceptualization, Methodology, Supervision, Validation, Formal Analysis, Writing – Review & Editing, Project Administration. Both authors read and approved the final version of the manuscript.

Ethics Statement

Informed consent was obtained from all participants involved in the study. Institutional ethics approval or a formal exemption/waiver, including the approving body and reference number where applicable, should be reported by the authors before publication.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Does this article screen for similarity?

Yes

Conflict of Interest

The authors have no conflicts of interest to declare. There is also no financial interest to report. The author certifies that the submission is original work and is not under review at any other publication.

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