CUSTOMER VALUE DIMENSIONS, CUSTOMER ENGAGEMENT, AND CONTINUANCE USAGE INTENTION AT DIFFERENT RISK LEVELS: A MULTI-METHOD APPROACH

Dhananjay Bapat
Indian Institute of Management, Raipur, India

Rahul Khandelwal
Institute of Management Studies Career Development and Research, Ahmednagar, India

ABSTRACT

The purpose of this study is to investigate the connection between customer value dimensions, customer engagement, and continuance usage intention for digital payment app. The study explores the moderating role of risk levels. The study applied theories of perceived customer value, customer engagement, continuance, and risk. A survey was conducted, and 316 Indian consumers who used digital payment apps participated. The researchers used the partial least squares structural equation modeling (PLS-SEM) technique and fuzzy set qualitative comparative analysis (fsQCA) to test their framework. Using PLS-SEM, the results showed that digital information quality value, emotional value, and price value positively influenced the continual usage intention. Additionally, perceived risk moderated the relationship between emotional and price value with continual usage intention. fsQCA analysis identified different solutions at varying levels of risk: low, medium, and high.

INTRODUCTION

Rapid technological advances influence retail payment systems. The retail payment system landscape consists of banks and new players, including technology, telecom, and financial technology players. Digital payment apps are considered an advancement of technology in financial services. Digital payment apps are installed on mobile devices and enable financial transactions electronically. These apps are also integrated with internet banking accounts. They support functions such as sending and receiving money to various entities, including persons, merchants, and the government. They enable payments through near-field communications, QR codes, and real-time payments, facilitating transactions. They have advantages, including improved convenience, round-the-clock accessibility, password and biometric authentication for security, and the versatility of various use cases. It is observed that some countries, particularly emerging countries, have leapfrogged from traditional methods to digital payment apps by circumventing card transactions. Card companies are responding by integrating it with digital payment apps. Digital banking has been investigated from different perspectives ranging from satisfaction (Bapat & Kannadhasan, 2022) to digital dysfunction (Aron, 2016).

In the backdrop of low switching costs and marketers' intention to recover costs and reach breakeven, marketers' objective is to retain users and facilitate continued use (Dağhan & Akkoyunlu, 2016). Continuance usage intention is critical because companies spend considerable resources in developing information technology services and products and expect a return within a reasonable time. Thus, by focusing on continuance usage, marketers intend to maximize the

return on their marketing investments. Similar to continuance usage intention, past studies have used constructs such as "continue to shop online", "online purchase intention", "website stickiness" and "customer intention to return" and "continued IT intention" (Wen et al., 2011). Companies get more data points when the digital payment app is used for multiple services. We find that continuance usage has been examined from the perspective of online learning (Dağhan, & Akkoyunlu, 2016), social network service (Lee & Kim, 2017), and mobile banking (Foroughi et al., 2019). Given the developments in digital payment apps, it is pertinent to examine what drives continued use intention for these apps.

Although the concept of customer value emerged in the 1980s, it is necessary to revisit it in the context of digital natives, digital-enabled products, a growing competitive environment, and dwindling industry boundaries (Leroi-Werelds, 2019). With technological developments, firms are responding by investing in social media listening tools, adopting better data management practices, and developing purposeful branding, resulting in greater customer value. Sweeney and Soutar, (2001), developed a consumption value theory and suggested that the perceived customer value scale represents functional, emotional (hedonic), price, and social dimensions. Our study considers the digital information quality dimension instead of functional value. Better information quality has an advantage in terms of reduced search cost, enhanced credibility, and better comprehension (Mun & Hwang, 2024). The digital information quality value incorporates relevant strategic and operational requirements in the backdrop of growing digital influence (Setia et al., 2013). We further argue that digital information quality value is critical in digital payment apps as it is input for targeted marketing campaigns and tailoring rewards to individual preferences. Along with customer value dimensions, our model considers customer engagement as an antecedent. The customer engagement concept has emerged as an important concept beyond traditional constructs such as customer involvement in predicting customer behavior outcomes (Hollebeek, 2013). While customer involvement relates to active participation in specific activities and is transactional, customer engagement focuses on ongoing relationships and is emotional. The concept of engagement is studied from different contexts of bank marketing such as brand engagement (Tran Xuan et al., 2023), brand engagement for vulnerable consumers (Sakas et al., 2023), and work engagement (Yoo et al., 2023).

Along with the accelerated growth of digital payment apps, there is increased concern among marketers due to trends in fraud sophistication and growing vulnerability to data breaches. Different types of risk, including phishing attacks, identity theft, and data breaches, have resulted in increased customer vulnerability. In addition to these risks, operational glitches prevent timely digital transactions. There is an additional risk emerging from fraudulent activities committed by employees. To mitigate risk, companies that provide digital payment apps invest in advanced encryption, intrusion detection systems, and regular security audits. Risk has been considered a moderator in examining the nexus between satisfaction, loyalty, and willingness to pay premiums (Casidy & Wymer, 2016). It is thus imperative to examine how different risk levels affect the nexus among customer value dimensions, customer engagement, and continual usage intention.

The paper makes the following significant contribution. First, it allows the novel use of multiple methods: PLS-SEM, and fsQCA for understanding the relationship in a digital setting. Thus, there is a significant methodical advancement that will help to consider results in a specific context and compare the findings from the three methods. Second, As Hollebeek, (2013) suggested the relationship between customer engagement and customer value is nebulous, the consideration of customer value along with customer engagement will be an advancement to the literature. Thus, the study responds to a call to examine customer value along with customer engagement.

Furthermore, we considered digital information quality as one of the dimensions of customer-perceived value, alongside emotional value, price value, and social value. The consideration of customer value dimensions is relevant to the context. Third, cyber fraud is a matter of concern for digital payments. Marketers need to know how customers adjust to risk levels. Fourth, the study integrates the theory of customer value, customer engagement, continuance, and perceived risk. Thus, the study integrates relevant theories in a digital setting. Fifth, the usage of digital payment apps is replacing cash transactions, and more use cases are being developed for digital payments. For example, during the initial period, digital payment apps were limited to person-to-person payments with limited capabilities. In recent times, digital payment apps have found various use cases such as push and pull transactions, recurring and non-recurring transactions, person-to-merchant transactions, merchant-to-person transactions, sales of mutual funds and insurance, integration with ticketing, and marketplace. Thus, continuance usage can be an important objective for marketing managers.

The study attempts to answer the following overarching research questions:

1. How do customer value dimensions and customer engagement influence continuance usage intention for digital payment apps?

2. Does the risk moderate the relationship among customer value dimensions, and customer engagement with continuance usage intention?

3. What are configuration solutions when customer value dimensions and customer engagement are considered causal variables and continuance usage intention is considered outcome variables at different levels of risk using fsQCA analysis?

Thus, the objective of the paper is to examine the role of customer value dimensions and customer engagement at different levels of risk in relation to continuance usage intention. We analyze using PLS-SEM and fsQCA. The paper is organized as follows. In Section 2, we offer an overview of customer value, customer engagement, continuance, and risk theories. This is followed by hypothesis development. The next section 3 presents the method with sub-sections on sample and data collection, common method bias, and multi-method. Section 4 presents the results separately in sequence for PLS-SEM and fsQCA analysis. Section 5 describes implications with separate sections on theoretical implications and managerial implications. Section 6 offers conclusions, limitations, and scope for future research.

LITERATURE REVIEW

In this section, we undertake a literature review examining the theories on customer value, customer engagement, continuance, and risk.

Customer Perceived Value

Customer value is a core concept in marketing (Day & Crask, 2000; Lee & Overby, 2004). The concept of customer value is receiving increased importance which is evident from the fact that 50 % of the vision and mission statements of different companies explicitly mention the notion of value creation for customers and stakeholders (Kumar & Reinartz, 2016). While examining customer value theory, we observe divergent paradigms, including positivist, interpretive, and

social constructionist approaches (Zeithaml et al., 2000). Zeithaml et al. (2020) suggested that customer value can be viewed through three paradigms: positivist, interpretive, and social constructionist. The positivist paradigm holds that reality is objective and observable. The interpretive paradigm suggests that customer value is subjective and contextual in the relationship between a subject (customer) and an object (products and services). The social constructivist view holds that the phenomenon depends on human practices, which are grounded in interactions between human beings and the world and are transmitted through a social context (Crotty, 1998).

Zeithaml, (1988) defined customer value as a "customer's overall assessment of a utility of a product or service based on perceptions on what is received and what is given". It was felt that economic aspects or utility alone cannot only explain perceived customer value. To facilitate the broad aspects of customer value, Sheth,et al., (1991) proposed various dimensions of value as: functional, epistemic, conditional, social, and emotional. Value has been defined as "a customer's perceived preference for and evaluation of product attributes, attribute performance and consequences that emerge from use that help achieve the customer's goals and purposes in use situation" (Woodruff, 1997). Sweeney and Soutar, (2001) followed the consumption value theory and considered the value dimensions of price/value of money, social, quality/performance, and emotional. Sweeney and Soutar (2001) followed a multidimensional approach. Sheth et al., (1991) argued that value dimensions act independently of each other, which is dependent on the situation and product. Wang et al. (2004) distinguished the dimensions: perceived customer value, covering functional, social, emotional, and perceived sacrifices, and non-monetary factors, covering time, effort, and energy. Borg et al., (2020) followed the scale with financial, functional, emotional, and social value. Kim & Yoon (2022) found the influence of economic, hedonic, and social values on perceived benefit. Powers et al. (2019) found that quality value results in both store and service satisfaction for discount stores.

Customer value can be seen from the lens of value components, the benefit/cost ratios model, and the means-end model. The value component is based on the premise that customer value can be classified as either utilitarian (need) or esteem (want) value (Kaufman, 1998). These value components were expanded further. For example. The benefit/cost ratios model considers the difference between customer perceptions of benefits and sacrifices incurred. Tangible and intangible benefits form part of customer benefits. The sacrifice component covers monetary and non-monetary factors such as the time and effort needed to acquire and use the product/service (Lenzinski & Marn, 1997). The means-end model is based on the assumption that customers consume products and services to accomplish the set objectives. The value can be seen from the standpoint of personal values, and cognitive representation (de Chernatony et al., 2000).

Customer engagement

Engagement has been examined in various domains such as sociology, political science, psychology, and organizational behavior in the past (Brodie et al., 2011). Customer engagement is considered a behavioral manifestation toward the brand or firm that goes beyond transactions (Verhoref et al., 2010). Hollebeek (2011) defined customer engagement as the "level of a customer's cognitive, emotional, and behavioral investment in specific brand interactions". Given the digital environment's significant impact, there is a growing realization that customer engagement is a strategic imperative and a priority for business managers. Van Doorn et al., (2010) considered it as a "customer's behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers". Rather than just tinkering with products and services, the focus on customer engagement can benefit the brand and marketers. The concept of

customer engagement aligns with the concept of interactive experience, value co-creation, relationship marketing, and service-dominant logic (Vargo & Lusch, 2008a).

Continuance

Adoption of technology has been examined using the technology acceptance model, innovation diffusion model, and unified theory of acceptance and use of technology (UTAUT) (Davis, 1989; Ventakesh et al., 2003). These theories were able to explain the short-term usage. Considering the fact that marketers were more interested in retention rather than short-term usage, studies focusing on ensuring continuance usage become important. It is recognized that constructs dealing with long-term utilization are important. It is observed that some studies explored continuance usage intention (Lin, 2011), others examined continuance usage (Zhou, 2013), and both variables were studied together (Limayem et al., 2007). The continuance theory relates to the technology continuity theory. The technology continuity theory is derived from the technology adoption model, expectation confirmation model, and cognitive model. The theory emphasizes the importance of user retention and loyalty over initial acceptance. The theory holds that long-term usage is more important than initial acceptance. The theory considers continuous use as a dependent variable to satisfaction and attitude, which is driven by perceived usefulness, confirmation, and perceived ease of use (Abdul Halim et al., 2022).

Risk theory

Perceived risk theory is an important variable in a digital environment, as fraud attempts are on the rise. Risk relates to important dimensions such as uncertainty and its consequences. Peter & Ryan (1976) highlighted risk as the probability of a negative consequence. Perceived risk plays a role in various buying situations such as complex buying behavior, dissonance-reducing buying behavior, habitual buying behavior and variety-seeking behavior. Different types of risk are categorized as financial risk, purchase risk, social risk, performance risk, time risk, reputation risk, and psychological risk (Mitchell, 1992). For digital payment apps, the risk can emerge from data breaches, identity theft, and operational glitches. The aspect of privacy risk has attained increased interest during and beyond financial transactions. The literature on technology adoption and continuance has highlighted privacy and security concerns. Yang (2012) found that prior negative experiences with online disclosure heightened participants' online information privacy concerns and risk perceptions regarding online disclosure, undermining trust in online companies.

HYPOTHESIS DEVELOPMENT

Customer Value Dimensions and Continuance Usage Intention

Sweeney and Soutar (2001) suggested customer value dimensions as emotional, social, quality/performance, and price/value for money. Emotional value refers to the positive feelings and sentiments experienced when using and consuming the brand. Price/Value for money refers to the values that people attach to the economic benefits (Joshi et al., 2021). The scale of Sweeney and Soutar (2001) is used in recent studies on health and fitness apps, digital payment apps, and electronic shopping (Bapat & Khandelwal, 2023; Dendrinos & Spais, 2023; Bapat & Hollebeek, 2023). Considering the growing influence of digitization in financial services, we have considered the dimension of digital information quality value. This is based on the premise that customers expect reliable, accurate, and prompt information about the transaction. Both business customers and retail customers may require this information for reconciliation. We considered other customer

value dimensions as economic value, emotional value, and social value. These customer value dimensions were found to vary in different combinations in different situations. Based on the recommendations of Sheth et al. (1991), some studies have modified the customer value dimensions to suit specific contexts and situations. For example, Joshi et al., (2021) considered the customer value dimension as perceived marketplace influence in addition to emotional value and economic value. In the study, customer value dimensions include digital information quality value, economic value, emotional value, and social value.

Economic value relates to the value of money. In the context of digital products, these values become critical. We need to look at pricing from the perspective of rewards, penalties, and costs incurred for digital products. The customer's choice of digital products may vary depending on pricing. From a benefit-cost perspective on customer value, pricing is the sacrifice a customer makes in terms of time, money, and resources. In the context of digital payment apps, customers with better economic value would exhibit continual usage intention. Customers compare the economic value of digital payment apps with alternative payment modes such as cards, paper-based transactions, and cash. The economic value of digital payment apps is likely higher than any other mode because of convenience and access around the clock. Past studies have found that economic value leads to satisfaction and loyalty. (Lee, 2022) found that economic value positively relates to higher commitment. We posit that economic value positively affects continuance usage intention, which is part of the loyalty facilitator.

Consumption emotion happens when customers derive emotional responses while consuming products or services. In the context of digital payment apps, emotional responses can refer to the success of payment under different conditions, such as a person-to-person, a person-to-merchant, and a person-to-government scenario. Thus, Lee (2022) states that emotional value leads to satisfaction, which in turn facilitates loyalty. Continuance usage intention is a kind of behavioral loyalty facilitator. Thus, we consider that economic value will positively and significantly influence continuance usage intention.

Social value concerns social self-concept and relates to self-esteem (Sweeney & Soutar, 2001). Social value is a subjective and variable construct that contributes to the improvement of knowledge through experience within social circles. The social circle can likely influence the choice of digital payment apps. Lee (2022) suggested that social value contributes to loyalty facilitators. Thus, we posit that social value will positively influence continuance usage intention.

Various attributes of digital information quality include accuracy, timeliness, richness, format, and relevance. Customers expect accuracy in information which can improve precision, reduce ambiguity, and avoid misinformation. Richness refers to the depth and breadth of information. Timeliness is about real-time information which becomes important in the digital context as digital payments apps are available on a 24/7 basis. Relevance is about alignment with user needs (Mun & Hwang, 2024). Mun and Hwang (2024) observed in the context of chatGPT, digital information quality value along with trust is positively and significantly associated with continuance usage intention.

Hsaio et al., (2016) found that certain customer value dimensions, such as social value and hedonic motivation drive continuance usage for social mobile apps. Blut et al., (2023) in their study using meta-analysis on customer value identified the outcome of customer value as satisfaction, word of mouth, and repurchase intentions. Jones et al., (2003) considered repurchase intentions as the likelihood of using the service again in the future. Nguyen et al. (2024) found that brand image and brand love mediated the relation between cause-related marketing and repurchase intention. Continuance usage behavior is important as service providers have invested a lot of

resources in technologies and customers. The construct of continuance usage intention is close to repurchase intention. It is based on the premise that companies must recover costs and make profits for which customers need to continue to use and explore varied use situations and contexts. Hence, continuance usage can be a critical objective for marketers

We posit that customer value dimensions such as digital information quality value, emotional value, price value, and social value will positively influence continuance usage intention.

> **H1a:** *The digital information quality dimension positively influences higher continuance usage intention.*
>
> **H1b:** *The emotional value dimension positively influences continuance usage intention.*
>
> **H1c:** *The price value dimension positively influences higher continuance usage intention.*
>
> **H1d:** *The social value dimension positively influences higher continuance usage intention.*

Customer Engagement and Continuance Usage Intention

It is recognized that customer engagement helps build successful, sustainable business relationships with target customers. The engagement process includes the period before a purchase, when a prospect can come in contact with the brand, to the post-purchase phase. Customer engagement differs from customer experience, interaction, and customer relationship management. Customer experience is about the customer's perception based on brand-related interactions; customer interaction is more about the emotional connection between the brand and the customer; and customer relationship management is about how a business manages customer data, interactions, and relationships. There are different schools of thought explaining customer engagement. While Hollebeek et al. (2019) defined customer engagement as "customer investment of cognitive, emotional, behavioral, and social resources during or related to specific brand interactions". Customer engagement contributes to customer-related outcomes (satisfaction, perceived fairness, brand identification, brand involvement, loyalty, and word of mouth) and organizational-related outcomes such as sales growth, superior competitive advantage, and profit city (Lim et al., 2021). In today's increasingly competitive environment, when customers are fickle and have many options, repatronage intention is of particular importance (Islam et al., 2019). Although intent is an imperfect measure as actual behavior may not coincide with intention, it is the way to know whether an individual is likely to come back. Intention is a popular and relevant dependent variable in service marketing research (Huang & Hsu, 2009). We have considered the dependent variable as continuance usage intention, which is similar to repatronage behavior. Thus, we posit a positive relationship between customer engagement and continual usage intention

> **H1e:** *Customer engagement positively influences higher continuance usage intention.*

The concept of risk is not new. However, the type and dimension of risk may differ. While the financial system increasingly depends on the development of the digital economy, there is a growing recognition that financial risk can affect digital transactions (Wang et al., 2022). The relationship between trust and risk is intertwined: when trust is high, perceived risk is low. Walz & Celuch (2022) suggest that trust or risk is an appropriate moderator. Kim and Yoon (2022) considered the role of risk in switching barriers. The perceived risk can arise from uncertain situations, concerns, psychological discomfort, cognitive dissonance, and conflicts in the consumer's mind (Featherman & Pavlou, 2003). According to Kogan and Wallach (1964), the concept of risk has two facets: the chance aspect, which is dependent on probability, and the other aspect on the severity of negative consequences. Risk perceptions are considered unpleasant experiences that arise from unanticipated or uncertain events during the purchase or consumption of products or services (Howcroft et al., 2007). Performance-related risk categories include economic, temporal, and effort. Perceived risk relates to an uncertainty or outcome when purchasing a financial product. These may vary by product type. For example, for a savings account where interest rates remain stable for an extended period, risk is minimal. On the other hand, financial products linked to market performance and returns vary, and as a result, risk will be higher with greater fluctuations. Zhuang et al. (2018) argue that customers are exposed to various technology-related risks, such as fraud attempts, telecom network interruptions, computer failures, and privacy issues. As compared to face-to-face financial transactions, digital financial transactions happen in remote situations, during which users may perceive the risk of sharing personal information, resulting in enhanced vulnerability (Chen et al., 2023). There are likely to be different levels of risk for different types of customers.

H2: *Perceived risk will moderate the relationship between customer value dimensions and customer engagement with continuance usage intention.*

Research Proposition: The configurations of customer value dimensions and customer engagement are equifinal, resulting in high customer usage intention, which will vary across different levels of risk, as determined by fsQCA analysis.

METHOD

In our study, we applied a multi-method of PLS-SEM and fsQCA. We used a multivariate regression technique with SMART-PLS, a nonparametric approach considered more robust and flexible, enabling model modification and refinement. Other methods have unique advantages that can enhance the understanding. Qualitative comparative analysis (QCA) is a technique that combines qualitative and quantitative approaches (Ragin, 1987) and is used in theory building, theory elaboration, and theory testing (Pappas & Woodside, 2021). Among various types of QCA, fsQCA is witnessing an increase in the number of papers with applications in services marketing (Wang et al., 2004). While regression is assumed to be symmetrical and linear, fsQCA can be well-suited to symmetrical or asymmetrical, non-linear relationships. fsQCA, as a methodology, allows consideration of alternative solutions rather than one solution as available in structural equation modeling. Thus, there is a methodical advancement in the study by the application of three methods.

Sample and Data Collection

The respondents included all those who use a digital payment app. A digital payment app. from India has set an example with accelerated growth. The penetration of digital payment apps using a unified payment interface is very high in India. It is estimated that there are about 350 million active users of digital payment apps out of a 900 million adult population. We obtained 316 valid responses. The number of 316 was much higher than the minimum requirement of 10 times the indicators of a construct or structural path of a model. This met the criteria (Barclays et al., 1995; Hair et al., 2011; Hair et al., 2017). We used convenience sampling to contact the respondents. Respondents were contacted based on the field investigator's contacts and the respondents' willingness to participate in the survey. We relied on convenience sampling, considering cost-effectiveness, quick turnaround, and practical considerations. Table 1 shows the sample profile.

As shown in Table 1, the sample represents the profile of the total digital payment app user population. More than half of the respondents were male (59%), followed by female (41%). The maximum age group among the respondents is 30-44 years (43%), followed by 18-29 years (31%). Most respondents were from the private sector (40%), followed by self-employed respondents (31%), and only 5% were unemployed. The majority of the respondents used Google Pay (30%); phone pay was used by 20 % of the respondents. Other payment apps, i.e., Amazon Pay (13%), BHIM Pay (15%), and Paytm (14%), were also used by the respondents.

Measures

We relied on Sweeney and Soutar (2001) for three scales social value, price value, and emotional value. These value dimensions were suited to the situation of digital payment apps. Instead of considering the construct of functional/quality value, we included digital information quality value, which was used by Dong et al., (2014) and applied by Delone and Mclean (2003). We find that Emotional value, value for money, and social value scales were used by Fazal-al-hasan et al., (2018). The customer engagement construct was adapted from Hollebeek et al. (2014). The scale of continuance usage intention was used by Dong et al (2014) in the context of social networking sites and was adapted from Liao et al. (2011). The questionnaires were shown to the experts. The experts were involved in the operations and marketing of digital payment apps at banks and in financial technologies. Based on their suggestions, some wordings were modified. Considering the validation, suitability, and the time respondents would likely spend, we adapted the questionnaire based on expert suggestions. We asked respondents to answer their preferred digital payment app.

Common Method Bias

A standard method happens when it weakens the reliability of findings. To mitigate the issue of common method bias, two procedural design and statistical control methods are recommended. We followed the recommendations. As regards procedural design, the survey was conducted after informing the respondent that their views would be kept anonymous. We used Harman's test by considering the selected items of the construct. The calculated value using one factor during factor analysis, while undertaking varimax rotation was below 50 %, thus meeting the criteria. Thus, common method bias was not found to be a threat.

Multi-Method

We used a multi-method consisting of PLS-SEM, and fsQCA. Structural equation modeling is well-suited to examining relationships and testing hypotheses involving independent, mediating, moderating, and dependent variables. For using structural equation modeling, AMOS using SPSS and Smart PLS are the options. SmartPLS-SEM is advantageous for examining both complex and straightforward models, is suitable for small samples and non-normal data, and offers predictive capabilities (Sukhov et al., 2023). Given that there is theoretical justification for a causal relationship. PLS-SEM can test statements such as "X positively influences Y." We decided to

Table 1
Sample Profile of Respondents

Age	**Frequency**	**percentage**
18-29	98	31.01
30-44	137	43.35
45-59	67	21.20
60 & above	14	4.43
Total	316	100.00
Gender		
Male	187	59.18
Female	129	40.82
Total	316	100.00
Profession		
Government Sector	73	23.10
Private Sector	127	40.18
Self Employed	100	31.64
Unemployed	16	5.08
Total	316	100.00
Digital Payment app use		
Google pay	96	30.37
Phone pay	66	20.88
Amazon Pay	43	13.60
BHIM Pay	50	15.82
Paytm	47	14.87
Other apps (airtel, mobiquick etc)	14	4.43
Total	**316**	**100.00**

employ the bootstrap method to assess the statistical significance of relationships among exogenous and endogenous variables. There is a viewpoint that NCA can complement and expand methods such as SEM (Dul et al., 2018) and fsQCA (Dul, 2022). fsQCA is a research method that

facilitates the comparison of cases to identify common patterns and suggest various combinations of configurations that can result in a particular outcome (Ragin, 2006). The method is based on set theory and Boolean algebra, which considers the presence or absence of key conditions. The advantage of the method is that it can generate alternate configurations. fsQCA combines both the computational and theorization components. The combination of the above methods will provide a better understanding of the relationships among various variables.

RESULTS

Measurement Model Assessment

To test the measurement model, we calculated the scores of measures of reliability, convergent validity, and discriminant validity. Reliability was measured using Cronbach's alpha and average variance extracted (AVE). The calculated value exceeded the threshold score of 0.7 for Cronbach's alpha and 0.5 for average variance extracted (AVE) (Bagozzi & Yi, 1988). The calculated values of AVE also fulfilled the criteria of construct reliability (Table 2). We considered the value of factor loadings in assessing convergent validity. The values must be greater than 0.7. Table 2 depicts the construct, items, and measurement model dimensions along with the results of reliability and convergent validity. The requirement of discriminant validity is met when the AVE exceeds the correlation among the constructs (Bagozzi, 1981). Table 3 shows the discriminant validity. The calculated value confirms that it meets the discriminant validity requirement. In addition, we examined the variable inflation factor (VIF) values to assess evidence of multicollinearity (Kline, 1998). As the values of VIF were below 10, we can accept the Hair et al. *(*2011) recommendation about the absence of multicollinearity

Structural Model Assessment Using PLS-SEMM

We assessed the path coefficient using the p-value and the coefficient of determination (R-squared). Cohen (1998) suggests that an R-squared greater than 0.60 is considered substantial. In our results, the R-squared was 0.789, indicating that 79.8% of the variation in the dependent variable, continuance usage intention, was explained by digital information quality, price, and emotional value. If the t-statistic exceeds 1.96, the path is significant (Efron & Gong, 1983). We further assessed the predictive relevance using PLS predict function of Smart PLS. We examined the cross-validated redundancy measure (Q2) to evaluate the model. The Q2 ranged between 0.656 and 0.743. A predictive value greater than 0.35 is considered a large effect size. Thus, the study has a considerable predictive relevance

Following the measurement model, we examined the structural model using a bootstrapping resampling method of 5000 samples. The results were assessed at a 5% significance level, and we relied on the T-statistic at the 0.05 level. The results of the structural model are shown in the figure. As observed in Table 6, the digital information quality value ($\beta = 0.235$, $p < 0.001$), pricing value ($\beta = 0.298$, $p < 0.001$), and emotional value ($\beta = 0.401$, $p < 0.001$) positively influenced continuance usage intention (Table 4). Thus, Hypotheses H1a, H1b, and H1c are supported. The results indicate that social value and customer engagement do not influence continuance usage intention.

Moderation

We used the product indicator approach to assess the moderating effect of perceived risk on the relationship between customer value dimensions and customer engagement on continuance usage intention. We used a continuous scale to moderate t he construct of risk levels. The

Table 2
Construct, Items, and Measurement Model Dimensions

	Construct and Source	**Items**	**Cronbach's alpha**	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
1	Digital Information quality value Dong et al. (2014); Delone and Mclean (2003)	It is important that the payment app provides detailed information	0.940	0.940	0.957	0.847
2		It is important that payment app brand provides accurate information				
3		It is important that payment app brand can be depended upon what it is promised				
4		It is important that payment app brands understand and adapt to specific user needs				
5		It is important that payment app brand deals with high quality				
6	Emotional (Hedonic) Value Fazal-e-Hasan et al. (2018)	It is entertaining to undertake transaction through my payment app brand	0.942	0.942	0.962	0.895
7		It is exciting to undertake transaction through my payment app brand				
8		It is delightful to undertake transaction through my payment app brand				

9	**Price Value** Soutar (2001) Fazal-e-Hasan et al. (2018)	The pricing of payment app brand is reasonable	0.917	0.924	0.941	0.801
10		The payment app. brand is economical				
11		The payment app. brand offers value for money				
12		The payment app brand offers excellent discount				
13	**Social Value** Sweeney and Soutar (2001) Fazal-e-Hasan, et al (2018)	The payment app. brand makes me socially acceptable	0.907	0.908	0.956	0.915
14		The payment app. brand gives me social status				
15	**Customer Engagement** Hollebeek (2011)	Using digital transaction gets me to think about this payment app. brand	0.963	0.965	0.969	0.819
16		I think about this payment app. brand a lot when I'm using digital transactions				
17		Using digital transactions stimulate my interest to learn more about this payment app brand				
18		I feel very positive when I use this payment app brand				
19		I am proud to use this payment app brand				
20		I spend a lot of time using this payment app brand.				

21		Whenever I am using digital transactions, I usually use this payment app brand				
22	**Intention to continuance usage** **Liao et al. (2011)**	I am likely to undertake online transactions	0.902	0.904	0.939	0.837
23		I am likely to recommend the brand to my friends				
24		I am likely to perform another transaction				
25	**Perceived Risk** Hong and Yi (2012)	Transacting on digital involves the risk of losing money as compared to the traditional way	0.910	0.953	0.935	0.784
26		Digital transaction involves loss of private information				
27		Undertaking digital transactions on payment app brands is riskier.				
28		Undertaking transactions on payment app brand involves the risk of fraudulent behavior				

moderation exists for the relationship between emotional value and continuance usage and price value and continuance usage intention (Fig 2.1 and 2.2). The hypothesized model result is shown in Figure 1.

fsQCA Analysis

We used fsQCA to identify the combination of factors that can lead to continuance usage intention. FsQCA is a qualitative comparative analysis based on set theory (Prentice, 2019). fsQCA, which is based on Boolean algebra, is different from linear regression analysis and SEM. We perform data calibration on a score of 0-1 (Rasoolmanesh et al., 2021). We considered the value as given by the respondent and arrived at three scores: no set membership represented by values near zero, cross with values near 0.5, and 1 with values near 1.0. Thereafter, a Truth table was generated, which conveyed various combinations and conditions (Rubinson, 2019). We followed Fiss's (2011) recommendation to eliminate rows with a frequency below 3. We selected the configurations with coverage greater than 0.2 and consistency more than 0.8 (Pappas &

Woodside, 2021). Three types of solutions are available: intermediate, complex, and parsimonious, for three risk levels: low, medium, and high. We followed the recommendations of Rasoolimanesh et al. (2021) to consider an intermediate solution.

Table 3
Discriminant's Validity Using Fornell-Larcker Criteria

	Digital information quality value	Customer engagement	Emotional	Continual usage intention	Price Value	Risk	Social value
Digital information quality value	0.892						
Customer engagement	0.758	0.888					
Emotional value	0.762	0.798	0.918				
Continual usage intention	0.797	0.775	0.664	0.870			
Price value	0.778	0.794	0.611	0.738	0.859		
Risk	0.093	0.064	0.172	0.192	0.162	0.850	
Social Value	0.757	0.738	0.731	0.826	0.652	0.184	0.911

Low Risk. Results in Table 5.1 indicate solution coverage of 0.93 and solution consistency of 0.847, suggesting that five configurations capture a substantial proportion of the outcome. Solution 1 has the highest raw coverage. Solution 1 indicates the presence of digital information quality and customer engagement. Among the five solutions, emotional value and engagement are present in three solutions and absent in one. Customer engagement is present in 3 solutions and absent in 1. Digital information quality value is present in two out of five solutions. Price value is absent in two solutions and not relevant in the other solutions.

Medium Risk. Results in Table 5.2 indicate solution coverage of 0.93 and solution consistency of 0.847, suggesting that five configurations capture a substantial proportion of outcomes. Solution 1 has the highest raw coverage. Solution 1 shows that a continuous usage intention is met when digital information quality and engagement are present, and other customer value dimensions are absent. We can analyze the other remaining 4 solutions. Among the five solutions, customer engagement is present in four and absent in one. Emotional value is present in two solutions but absent in one. The digital information quality value is present in two solutions. Social value is present in one solution but absent in two solutions.

Table 4
Structural model

Relationship	Path coefficient	T Vale	P value	Decision (Hypothesis)
Digital information quality value -> Continuance usage intention	0.235	3.632	0.000	Supported (H 1 a)
Emotional_ -> Continuance usage intention	0.401	6.024	0.000	Supported (H 1 b)
Price value-> Continuance usage intention	0.298	4.299	0.000	Supported (H 1 c)
Risk_-> Continuance usage intention	0.010	2.070	0.045	Supported
Social Value -> Continuance usage intention	0.024	0.475	0.635	Not Supported (H 1 d)
Engagement -> Continuance usage intention	0.024	0.298	0.766	Not Supported (H 1 e)
Risk_ x Digital information quality -> Continuance usage intention	0.084	1.568	0.117	Not Supported (H2)
Risk_ x Emotional Value -> Continuance usage intention	-0.230	3.521	0.000	Supported (H2)
Risk_ x Social value -> Continuance usage intention	0.003	0.077	0.938	Not Supported (H2)
Risk_ x Engagement -> Continuance usage intention	0.036	0.549	0.583	Not Supported (H2)
Risk_ x Price value_ -> Continuance usage intention	0.155	2.721	0.007	Supported (H2)

Figure 1
Structural Equation Model Results

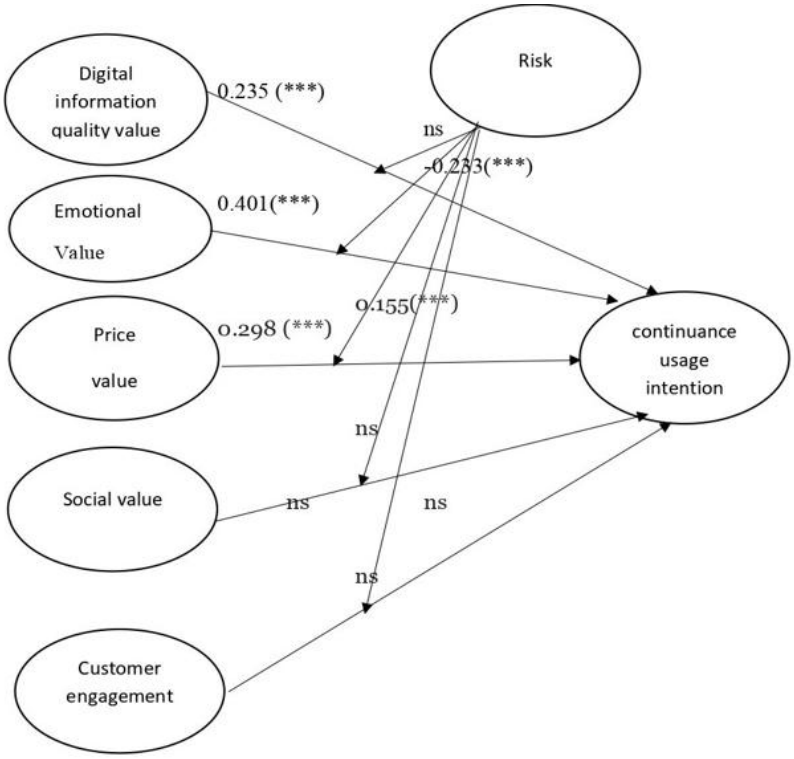


Figure 2.1
Moderation Results: Impact of Emotional Value at Different Levels of Risk on Intention to Continuance Usage

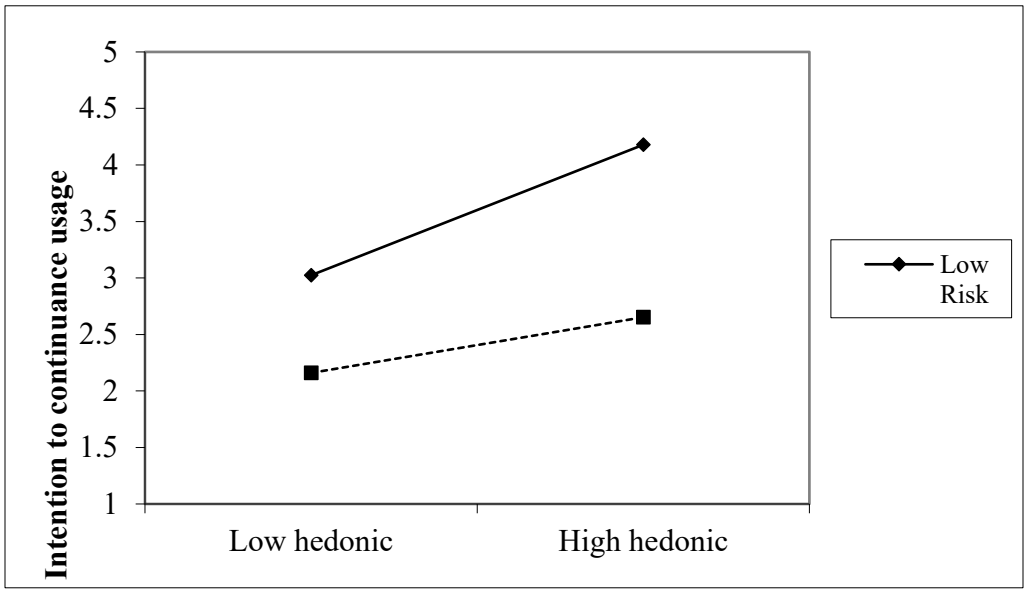
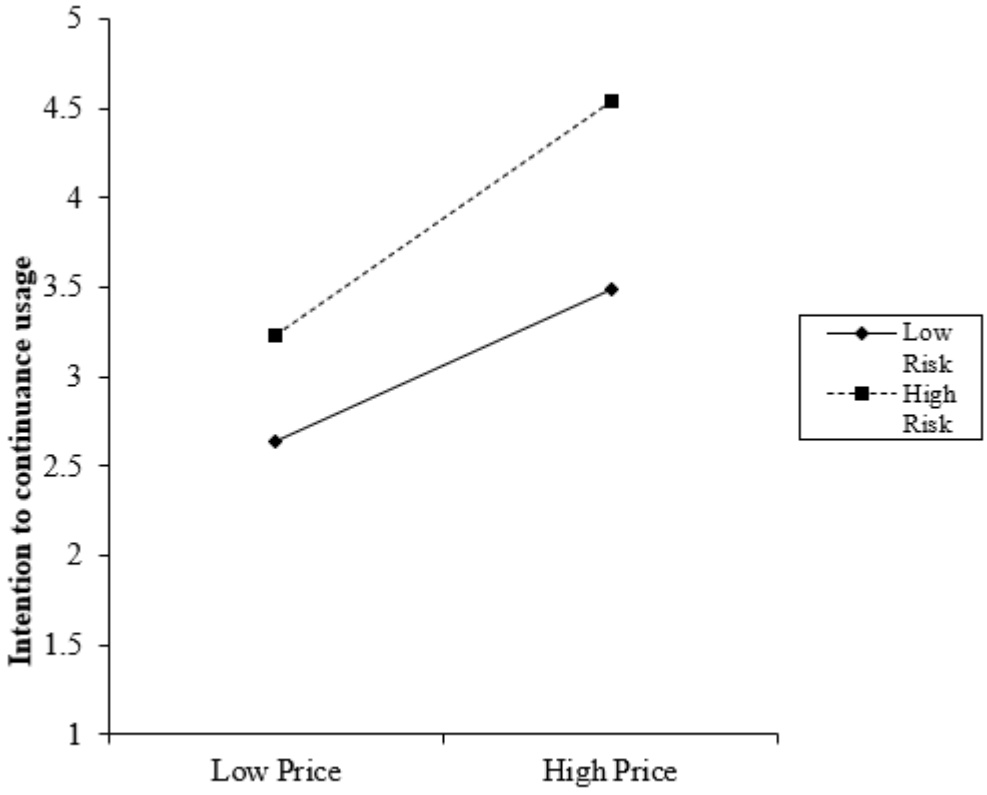


Figure 2.2
Impact of Price Value at Different Levels of Risk on Intention to Continuance Usage



High Risk. Results in Table 5.3 indicate solution coverage of 0.93 and solution consistency of 0.847, suggesting that seven configurations capture a substantial proportion of the outcome. Solution 2 has the highest raw coverage. Solution 2 shows the intention to continuance usage meets when digital information quality value, emotional value, and engagement are present. We can analyze seven solutions. Among the seven solutions, digital information quality is present in four, absent in two, and not present in one. Customer engagement is present in four solutions and absent in two. Digital information quality value is present in four solutions and absent in two. Emotional value is present in two solutions and absent in two others. Price value is present in three solutions and absent in three. Social value is present in four solutions and absent in one.

IMPLICATIONS

Theoretical Implications

The study makes a significant theoretical contribution. It integrates the theory of consumption value, customer engagement theory, continuance, and risk theory. Past studies have examined continuance usage intention from various alternate theories. For example, Mathieson (1991) compared the technology acceptance model with the theory of planned behavior. Nasri and

Table 5.1
fsQCA Results for Low-Risk Level

consistency cutoff: 0.854095

	Solution 1	Solution 2	Solution 3	Solution 4	Solution 5
Digital information Quality Value	●		●		
Emotional Value		⊗	●	●	●
Price Value		⊗			⊗
Social Value			⊗	●	⊗
Customer engagement	●	●		●	⊗
Raw Coverage	0.868	0.304	0.364	0.791	0.268
Unique Coverage	0.053	0.009	0.002	0.027	0.006
Consistency	0.887	0.816	0.983	0.944	0.961

Solution Coverage 0.938949
Solution Consistency 0.847406

Table 5.2
fsQCA Results for Medium Risk Level

consistency cutoff: 0.854095

	Solution 1	Solution 2	Solution 3	Solution 4	Solution 5
Digital information Quality Value	●		●		
Emotional Value		⊗		●	●
Price Value		⊗			⊗
Social Value			⊗	●	⊗
Customer engagement	●	●	●	●	⊗
Raw Coverage	0.868	0.303	0.364	0.791	0.268
Unique Coverage	0.053	0.009	0.003	0.027	0.006
Consistency	0.887	0.816	0.983	0.944	0.961

solution coverage: 0.938949
solution consistency: 0.847406

Charfeddine (2012) examined the factors influencing the adoption of Internet banking by integrating the technology acceptance model and the theory of planned behavior. Our study considered customer value dimensions and customer engagement. We used the seminal paper by Sweeney and Soutar (2001) for the theory of consumption value and Hollebeek et al. (2014) and So et al., (2014) for customer engagement theory as an anchor to our study. In addition, we considered risk theory and continuance theory. Theoretical advancements can be made by combining two theories or modifying a variable in a theory. To our knowledge, few studies explore both phenomena simultaneously.

Table 5.3
fsQCA results for high risk level

	Solution 1	**Solution 2**	**Solution 3**	**Solution 4**	**Solution 5**	**Solution 6**	**Solution 7**
Digital information Quality Value	●	●	⊗		⊗	●	●
Emotional Value		●	⊗	⊗	●	⊗	
Price Value	⊗	⊗		⊗	●	●	●
Social Value			●	⊗	●	●	●
Customer engagement	●	●	⊗	●			●
Raw Coverage	0.432	**0.843**	**0.321**	**0.290**	**0.421**	**0.386**	**0.802**
Unique Coverage	0.002	**0.044**	**0.000**	**0.001**	**0.004**	**0.000**	**0.007**
Consistency	0.995	**0.989**	**0.987**	**0.974**	**0.993**	**0.994**	**0.992**

solution coverage: 0.906008
solution consistency: 0.955878

Sweeney and Soutar (2001) identified four customer value dimensions: emotional, price, quality/performance, and price/value for money. We find that past studies have applied theory on consumption value in the context of food delivery apps, healthcare apps, and digital payments (Chakraborty et al., 2022; Chakraborty & Paul, 2022). We observe that customer value dimensions were modified in studies across domains such as hospitality, tourism, and green products (Yang & Mattila, 2016; Lin & Huang, 2012). For example, Yang and Mattila (2016) considered the value dimensions to be emotional, symbolic, and financial. Considering the relevance of digital information quality value in a digital payment app, we considered digital information quality value in place of functional value. The importance of information quality is highlighted within the elaboration likelihood theory. According to the theory, there are two routes of information processing: the central route and the peripheral route. The central route focuses on logical analysis, and the peripheral route relies on heuristic cues (Mun & Hwang, 2024). Thus, we considered digital information quality value, price value, emotional value, and social value. The scale of customer engagement is consistent with Hollebeek et al. (2014) and So et al. (2014). Customer engagement

is the customer's connection to a brand, as manifested in cognitive, affective, and behavioral actions outside the purchase situation.

The PLS-SEM analysis shows that digital information quality value, emotional value, and price value positively affect continuance usage intention. Thus, the findings can help identify which dimensions of perceived customer value are decisive in predicting continuance usage intention. The positive relationship between digital information quality and continuance usage intention highlights the importance of accurate, real-time, rich, and relevant information. The study highlights that when customers exhibit emotional value, it can result in continuance usage intention. The study underscores the importance of comparing economic value with alternative payment modes, such as cash and paper-based transactions. The rewards also contribute to the price value. The findings show that social value and customer engagement have no significant effect on continuance usage intention. The non-significant effect of social value may be due to the reason that digital payment apps. They are personal, and people do not talk much about digital payment apps because they involve people's financial matters. Our study highlights that customer engagement does not influence continuance usage intention. This may be due to the possibility of a relevant mediator between customer engagement and continuance usage intention. The mediating factor could be satisfaction or customer equity constructs such as value equity, brand equity, and relationship equity. There may be situations where the relationship is weak. The reasons could be that the usage of a digital payment app may be influenced much more by habit, convenience, or price.

We observed that digital fraud is of concern for digital payment apps. The consideration of risk as a moderator in our study is relevant. The study highlights that perceived risk moderates the relationships between emotional value and intention to continue usage, as well as between price value and continued usage intention. Paulssen et al. (2014) highlighted that different sources of risk depend on the product category and context. The findings are consistent with the study by Jangir et al. (2022), which pointed out that risk moderated the relationship between satisfaction and continuance usage intention. Jangir et al. (2022) found that risk did not moderate the relationship between usefulness and satisfaction. One possible explanation is that a user with a predetermined goal to use a technology may temporarily disregard the risk element. A lack of other options, such as development mechanisms, limited awareness, and few substitutes, may also lead users to ignore system or technology risks. In our study, it is possible that risk levels cannot be categorized based on the value of digital information quality.

While smartPLS indicates the specific path, fsQCA suggests various configurations to achieve a higher continuance usage intention. Using fsQCA analysis within complexity theory, all variables played a role in continuance usage intention across different levels of risk. The findings confirm that effect varied at different levels of risk. For example, customer engagement played a role in three out of five configuration solutions for low risk, four out of five for medium risk, and three out of seven for high risk. The current study advances theory by investigating the use of complexity theory with fsQCA to predict continuance usage intention for digital payment apps, while considering perceived customer value dimensions and customer engagement as antecedents.

MANAGERIAL IMPLICATIONS

Digital payment apps have emerged as an important payment mechanism and are competing with cash transactions. For example, the National Payment Corporation of India (NPCI) has developed an instant real-time payment system to facilitate digital transactions. UPI is

considered a game-changer and is a global favorite in many countries that are keen to embrace digital payments. It has been estimated that about 11 billion digital transactions were conducted in India in November 2023. While digital payment transactions have accelerated, there is scope to replace cash transactions with digital payments. For this to happen, continuance usage for various use cases can be an objective for marketing managers.

Customer value and customer engagement are topics of growing interest to managers. While referring to the results from smart-PLS, the study underscores the importance of digital information quality, emotional value, and social value in predicting continuance usage intention. The digital information quality value is about providing detailed information, accurate information, meeting specific user needs, and high quality. As digital payments occur 24/7 and in real time, the provision of digital information quality is of immense importance. Marketers offering digital payment services are required to coordinate with multiple partners to provide real-time payment notifications. Marketers can consider offering more use cases for leveraging the value of digital information quality. For example, customers can receive payment analysis across various domains based on merchant classifications. They can offer reconciliation with major bank accounts and allow customers to access information on past payments easily. Emotional value can be enhanced through targeted, personalized campaigns that depict various use cases. Price value can be assessed by comparing economic value with other traditional options. Pricing value can be enhanced by highlighting the value from the customer's perspective. Using fsQCA analysis, the findings have interesting practical implications since solutions for optimizing continuance usage intention can be determined by different customer value dimensions and customer engagement configurations. The study highlighted configurations at different risk levels. Companies can classify customers and prospects at different risk levels. The study highlights configuration options at different risk levels. Managers need to look at both PLS-SEM and fsQCA results.

As risk levels are critical, we have included them as moderators. As digitization shapes consumer behavior and social change in how people engage with digital transactions, it also exposes them to various types of risk. These risks include online fraud, scams, and data privacy issues. Marketers can undertake risk assessments for various customers. Marketers need to be aware of the importance of customer value dimensions and customer engagement at different risk levels. There is scope to offer customized messages at different risk levels. While digitized payments result in significant advantages for customers in terms of convenience and simplicity, there are emerging issues related to risk. Marketers need to consider alternative paths to achieving high continuous usage intention at different levels of risk.

CONSLUSION, LIMITATIONS, AND SCOPE FOR FUTURE RESEARCH

We applied multiple methods, PLS-SEM and fsQCA, considering customer value dimensions and customer engagement as antecedents of continuance usage intention. Using structural equation modeling, digital information quality value, and emotional value significantly influenced intention to continuance usage. Perceived Risk moderated the relationship between emotional value and continuance usage intention, and price value and continuance usage intention. FsQCA analysis identified different solutions at varying levels of risk: low, medium, and high.

While the study is done with methodological rigor, the findings should be interpreted with caution. First, we suggest that future studies can be conducted in the payment domain in different contexts. For example, in India, there is greater cooperation among market participants. We also observe that countries have varied experiences in the digital payment space. For example, some

countries continue to dominate credit cards; some countries have a mix of credit cards and debit cards; and some countries have leapfrogged directly to digital payment apps, with little duration in credit card use among customers. Comparative studies from different contexts can also add value. Second, Future research can consider different variables. These variables could be satisfaction, value equity, brand equity, and relationship equity. Third, future research can cover experimental studies and longitudinal analysis. Future studies can also look at alternative modes of sampling. Future studies can explore the possibility of integrating customer value theory with a unified theory of acceptance and use of technology and technology continuity theory, while considering additional variables such as conformity.

CORRESPONDING AUTHOR
Dhananjay Bapat
Associate Professor of Marketing
Indian Institute of Management, Raipur, India
Address: IIM Raipur Campus, Atal Nagar, Post Kurru, Raipur 493661 India
E-Mail: dhananjay@iimraipur.ac.in, dhananjay1304@gmail.com
Phone: +91-771-2474647, +91-9960643128

Submitted: 27 August 2024
Revised: 22 April 2025

REFERENCES

Abdul-Halim, N.-A., Vafaei-Zadeh, A., Hanifah, H., Teoh, A. P., & Nawaser, K. (2021). Understanding the determinants of e-wallet continuance usage intention in Malaysia. *Quality & Quantity, 56*(5), 3413–3439. https://doi.org/10.1007/s11135-021-01276-7

Aron, D. (2016). Digital dysfunction: Consumer grudgeholding and retaliation in the digital era. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *29*, 119-130. https://jcsdcb.com/index.php/JCSDCB/article/view/239

Bagozzi, R. P. (1981). An examination of the validity of two models of attitude. *Multivariate Behavioral Research,* 16(3), 323–359. https://doi.org/10.1207/s15327906mbr1603_4

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74–94. https://doi.org/10.1007/bf02723327

Bapat, D., & Hollebeek, L. D. (2023). Customer value, customer engagement, and customer-based brand equity in the context of a digital payment app. *Marketing Intelligence & Planning, 41*(7), 837–853. https://doi.org/10.1108/mip-09-2022-0417

Bapat, D., & Kannadhasan, M. (2022). Satisfaction as a mediator between brand experience dimensions and word-of-mouth for digital banking services: Does gender and age matter? Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 37 (2), 3–21. https://www.jcsdcb.com/index.php/JCSDCB/article/view/498

Bapat, D., & Khandelwal, R. (2023). Antecedents and consequences of consumer hope for digital payment apps services. *Journal of Services Marketing,* 37 (1), 110-27. https://doi.org/10.1108/jsm-12-2021-0456

Barclay, M. J., & Smith, C. W. (1995). The priority structure of corporate liabilities. *The Journal of Finance, 50*(3), 899–917. https://doi.org/10.1111/j.1540-6261.1995.tb04041.x

Blut, M., Chaney, D., Lunardo, R., Mencarelli, R., & Grewal, D. (2023). Customer perceived value: A comprehensive meta-analysis. *Journal of Service Research*, 27 (4), 501-524 https://doi.org/10.1177/10946705231222295

Borg, D., Mont, O., & Schoonover, H. (2020). Consumer acceptance and value in use-oriented product-service systems: Lessons from Swedish consumer goods companies. *Sustainability,* 12(19), 8079. https://doi.org/10.3390/su12198079

Brodie, R. J., Hollebeek, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research,* 14(3), 252–271. https://doi.org/10.1177/1094670511411703

Casidy, R., & Wymer, W. (2016). A risk worth taking: Perceived risk as moderator of satisfaction, loyalty, and willingness-to-pay premium price. *Journal of Retailing and Consumer Services,* 32, 189–197. https://doi.org/10.1016/j.jretconser.2016.06.014

Chakraborty, D., Kayal, G., Mehta, P., Nunkoo, R., & Rana, N. P. (2022). Consumers' usage of food delivery app: A theory of consumption values. *Journal of Hospitality Marketing & Management,* 31(5), 1–19. https://doi.org/10.1080/19368623.2022.2024476

Chakraborty, D., & Paul, J. (2022). Healthcare apps' purchase intention: A consumption values perspective. Technovation, 120, 102481. https://doi.org/10.1016/j.technovation.2022.102481

Chen, Q., Shen, Y., Zhang, L., Zhang, Z., Zheng, J., & Jing Xiu. (2023). Influences of (in)congruences in psychological entitlement and felt obligation on ethical behavior. Frontiers in Psychology, 13, 1052759. https://doi.org/10.3389/fpsyg.2022.1052759

Cohen, D. (1998). Culture, social organization, and patterns of violence. Journal of Personality and Social Psychology, 75(2), 408–419. https://doi.org/10.1037/0022-3514.75.2.408

Crotty, M. (1998). The foundations of social research: Meaning and perspective in the research process (pp. 1–17). Sage Publications.

Dağhan, G., & Akkoyunlu, B. (2016). Modeling the continuance usage intention of online learning environments. Computers in Human Behavior, 60, 198–211. https://doi.org/10.1016/j.chb.2016.02.066

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.2307/249008 .

Day, E., & Crask, M. R. (2000). Value assessment: the antecedent of customer satisfaction. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *13*, 52-60. https://www.jcsdcb.com/index.php/JCSDCB/article/view/187

de Chernatony, L., Harris, F., & Dall'Olmo Riley, F. (2000). Added value: Its nature, roles and sustainability. European Journal of Marketing, 34(1/2), 39–56. https://doi.org/10.1108/03090560010306197

Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A ten-year update. Journal of Management Information Systems, 19(4), 9–30.

Dendrinos, K., & Spais, G. (2023). An investigation of selected UTAUT constructs and consumption values of Gen Z and Gen X for mobile banking services and behavioral intentions to facilitate the adoption of mobile apps. Journal of Marketing Analytics. https://doi.org/10.1057/s41270-023-00271-1

Dong, T.P., Cheng, N.C., & Wu, Y.-C. J. (2014). A study of the social networking website service in digital content industries: The Facebook case in Taiwan. Computers in Human Behavior, 30, 708–714. https://doi.org/10.1016/j.chb.2013.07.037

Dul, J. (2022). Problematic applications of necessary condition analysis (NCA) in tourism and hospitality research. Tourism Management, 93, 104616. https://doi.org/10.1016/j.tourman.2022.104616

Dul, J., Vis, B., & Goertz, G. (2018). Necessary Condition Analysis (NCA) does exactly what it should do when applied properly. Sociological Methods & Research, 50(2), 004912411879938. https://doi.org/10.1177/0049124118799383

Efron, B., & Gong, G. (1983). A leisurely look at the bootstrap, the jackknife, and cross-validation. The American Statistician, 37(1), 36–48. https://doi.org/10.1080/00031305.1983.10483087

Fazal-e-Hasan, S. M., Ahmadi, H., Mortimer, G., Grimmer, M., & Kelly, L. (2018). Examining the role of consumer hope in explaining the impact of perceived brand value on customer–brand relationship outcomes in an online retailing environment. Journal of Retailing and Consumer Services, 41, 101–111. https://doi.org/10.1016/j.jretconser.2017.12.004

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. International Journal of Human-Computer Studies, 59(4), 451–474.

Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. Academy of Management Journal, 54(2), 393–420. https://doi.org/10.5465/amj.2011.60263120

Foroughi, B., Iranmanesh, M., & Hyun, S. S. (2019). Understanding the determinants of mobile banking continuance usage intention. Journal of Enterprise Information Management, 32(6), 1015–1033. https://doi.org/10.1108/jeim-10-2018-0237

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing Theory and Practice, 19(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. Industrial Management & Data Systems, 117(3), 442–458. https://doi.org/10.1108/imds-04-2016-0130

Hollebeek, L. (2011). Exploring customer brand engagement: Definition and themes. Journal of Strategic Marketing, 19(7), 555–573. https://doi.org/10.1080/0965254x.2011.599493

Hollebeek, L. D. (2013). The customer engagement/value interface: An exploratory investigation. Australasian Marketing Journal (AMJ), 21(1), 17–24. https://doi.org/10.1016/j.ausmj.2012.08.006

Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. Journal of Interactive Marketing, 28(2), 149–165. https://doi.org/10.1016/j.intmar.2013.12.

Hollebeek, L. D., Sprott, D. E., Andreassen, T. W., Costley, C., Klaus, P., Kuppelwieser, V., Karahasanovic, A., Taguchi, T., Ul Islam, J., & Rather, R. A. (2019). Customer engagement in evolving technological environments: Synopsis and guiding propositions. European Journal of Marketing, 53(9), 2018–2023. https://doi.org/10.1108/ejm-09-2019-970

Hong, Z., & Yi, L. (2012). Research on the influence of perceived risk in consumer online purchasing decision. Physics Procedia, 24, 1304–1310. https://doi.org/10.1016/j.phpro.2012.02.194

Howcroft, B., Hamilton, R., & Hewer, P. (2007). Customer involvement and interaction in retail banking: An examination of risk and confidence in the purchase of financial products. Journal of Services Marketing, 21(7), 481–491. https://doi.org/10.1108/08876040710824843

Huang, S., & Hsu, C. H. C. (2009). Effects of travel motivation, past experience, perceived constraint, and attitude on revisit intention. Journal of Travel Research, 48(1), 29–44. https://doi.org/10.1177/0047287508328793

Hsiao, C.-H., Chang, J.-J., & Tang, K.-Y. (2016). Exploring the influential factors in continuance usage of mobile social apps: Satisfaction, habit, and customer value perspectives. Telematics and Informatics, 33(2), 342–355. https://doi.org/10.1016/j.tele.2015.08.014

Islam, J. U., Hollebeek, L. D., Rahman, Z., Khan, I., & Rasool, A. (2019). Customer engagement in the service context: An empirical investigation of the construct, its antecedents and consequences. Journal of Retailing and Consumer Services, 50, 277–285. https://doi.org/10.1016/j.jretconser.2019.05.018

Jangir, K., Sharma, V., Taneja, S., & Rupeika-Apoga, R. (2022). The moderating effect of perceived risk on users' continuance intention for fintech services. Journal of Risk and Financial Management, 16(1), 21. https://doi.org/10.3390/jrfm16010021

Jones, M. A., Mothersbaugh, D. L., & Beatty, S. E. (2003). The effects of locational convenience on customer repurchase intentions across service types. Journal of Services Marketing, 17(7), 701–712. https://doi.org/10.1108/08876040310501250

Joshi, Y., Uniyal, D. P., & Sangroya, D. (2021). Investigating consumers' green purchase intention: Examining the role of economic value, emotional value and perceived marketplace influence. Journal of Cleaner Production, 328, 129638. https://doi.org/10.1016/j.jclepro.2021.129638

Kaufman, J.J. 1998. Value Management: Creating Competitive Advantage, Best Management Practices Series, Crisp Publications, Menlo Park, CA.

Kline, R. B. (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. Journal of Psychoeducational Assessment, 16(4), 343–364. https://doi.org/10.1177/073428299801600407

Kogan, N., & Wallach, M. A. (1964). Risk-taking. Holt, Rinehart & Winston.

Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. Journal of Marketing, 80(6), 36–68. https://doi.org/10.1509/jm.15.0414

Kim, H. Y., & Yoon, S. (2022). Do consumer values and switching barriers influence sharing consumption intention? A cost-benefit approach. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 35, 99–120. https://www.jcsdcb.com/index.php/JCSDCB/article/view/600

Lee, D. H. (2022). The trinity of extended service quality, distinct perceived value, and customer loyalty facilitators. Asia Pacific Journal of Marketing and Logistics, 35(5). https://doi.org/10.1108/apjml-01-2022-0048

Lee, S., & Kim, B. G. (2017). The impact of qualities of social network service on the continuance usage intention. Management Decision, 55(4), 701–729. https://doi.org/10.1108/md-10-2016-0731

Lee, E. J., & Overby, J. W. (2004). Creating value for online shoppers: Implications for satisfaction and loyalty. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *17*, 54-67 https://jcsdcb.com/index.php/JCSDCB/article/view/62

Leroi-Werelds, S. (2019). An update on customer value: State of the art, revised typology, and research agenda. Journal of Service Management, 30(5), 650–680. https://doi.org/10.1108/josm-03-2019-0074

Liao, C., Liu, C.-C., Liu, Y.-P., To, P.-L., & Lin, H.-N. (2011). Applying the expectancy disconfirmation and regret theories to online consumer behavior. Cyberpsychology, Behavior, and Social Networking, 14(4), 241–246. https://doi.org/10.1089/cyber.2009.0236

Lim, W. M., Rasul, T., Kumar, S., & Ala, M. (2021). Past, present, and future of customer engagement. Journal of Business Research, 140(1), 439–458. https://www.sciencedirect.com/science/article/pii/S0148296321008213

Limayem, M., Hirt, S. G., & Cheung, C. M. K. (2007). How habit limits the predictive power of intention: The case of information systems continuance. MIS Quarterly, 31(4), 705. https://doi.org/10.2307/25148817

Lin, H.-F. (2011). An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust. International Journal of Information Management, 31(3), 252–260. https://doi.org/10.1016/j.ijinfomgt.2010.07.006

Lin, P.-C., & Huang, Y.-H. (2012). The influence factors on choice behavior regarding green products based on the theory of consumption values. Journal of Cleaner Production, 22(1), 11–18. https://doi.org/10.1016/j.jclepro.2011.10.002

Manrai, R., Yadav, P. D., & Goel, U. (2022). Factors affecting adoption of digital payments by urban women: Understanding the moderating role of perceived financial risk. Technology Analysis & Strategic Management, 36(10), 1–13. https://doi.org/10.1080/09537325.2022.2139237

Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. Information Systems Research, 2(3), 173–191.

Mitchell, V. W. (1992). Understanding consumers' behaviour: Can perceived risk theory help? Management Decision, 30(3). https://doi.org/10.1108/00251749210013050

Mun, I. B., & Hwang, K.-H. (2024). Understanding ChatGPT continuous usage intention: The role of information quality, information usefulness, and source trust. Information Development. https://doi.org/10.1177/02666669241307595

Nasri, W., & Charfeddine, L. (2012). Factors affecting the adoption of Internet banking in Tunisia: An integration theory of acceptance model and theory of planned behavior. The Journal of High Technology Management Research, 23(1), 1–14. https://doi.org/10.1016/j.hitech.2012.03.001

Nguyen, A. T., Phan, L. T., & Nguyen, Q. H. (2024). The role of brand image and brand love in the relationship between perceived cause-related marketing and repurchase intention. Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 37(2), 188–207. https://jcsdcb.com/index.php/JCSDCB/article/view/506

Pappas, I. O., & Woodside, A. G. (2021). Fuzzy-set qualitative comparative analysis (fsQCA): Guidelines for research practice in information systems and marketing. International Journal of Information Management, 58(1), 102310. https://doi.org/10.1016/j.ijinfomgt.2021.102310

Paulssen, M., Roulet, R., & Wilke, S. (2014). Risk as moderator of the trust-loyalty relationship. European Journal of Marketing, 48(5/6), 964–981. https://doi.org/10.1108/ejm-11-2011-0657

Peter, J. P., & Ryan, M. J. (1976). An investigation of perceived risk at the brand level. Journal of Marketing Research, 13(2), 184–188. https://doi.org/10.1177/002224377601300210

Prentice, C. (2019). Testing complexity theory in service research. Journal of Services Marketing, 34(2), 149–162. https://doi.org/10.1108/jsm-09-2019-0353

Ragin, C. C. (1987). The comparative method: Moving beyond qualitative and quantitative strategies. University of California Press.

Ragin, C. C. (2006). The limitations of net-effects thinking. In The limitations of net-effects thinking (pp. 13–41). Kluwer Academic Publishers eBooks. https://doi.org/10.1007/0-387-28829-5_2

Leszinski, R., & Marn, M. V. (1997). Setting value, not price. The McKinsey Quarterly, 1(1), 98.

Powers, T. L., Jack, E. P., & Choi, S. (2018). Price and quality value influences on retail customer satisfaction and loyalty. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *31*, 21-39. https://jcsdcb.com/index.php/JCSDCB/article/view/252

Rasoolimanesh, S. M., Ringle, C. M., Sarstedt, M., & Olya, H. (2021). The combined use of symmetric and asymmetric approaches: Partial least squares-structural equation modeling and fuzzy-set qualitative comparative analysis. International Journal of Contemporary Hospitality Management, 33(5), 1571–1592. https://doi.org/10.1108/ijchm-10-2020-1164

Rubinson, R. (2019). The world-economy and the distribution of income within states: A cross-national study. In The gap between rich and poor (pp. 156–186). Routledge.

Sakas, D. P., Giannakopoulos, N. T., Terzi, M. C., Kamperos, I. D. G., & Kanellos, N. (2023). What is the connection between fintechs' video marketing and their vulnerable customers' brand engagement during crises? International Journal of Bank Marketing, ahead-of-print. https://doi.org/10.1108/IJBM-03-2023-014

Setia, P., Setia, P., Venkatesh, V., & Joglekar, S. (2013). Leveraging digital technologies: How information quality leads to localized capabilities and customer service performance. MIS Quarterly, 37(2), 565–590. https://www.jstor.org/stable/43825923

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. Journal of Business Research, 22(2), 159–170. https://doi.org/10.1016/0148-2963(91)90050-8

So, K. K. F., King, C., & Sparks, B. (2014). Customer engagement with tourism brands. Journal of Hospitality & Tourism Research, 38(3), 304–329. https://doi.org/10.1177/1096348012451456

Sukhov, A., Friman, M., & Olsson, L. E. (2023). Unlocking potential: An integrated approach using PLS-SEM, NCA, and fsQCA for informed decision making. Journal of Retailing and Consumer Services, 74, 103424. https://doi.org/10.1016/j.jretconser.2023.103424

Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. Journal of Retailing, 77(2), 203–220. https://doi.org/10.1016/S0022-4359(01)00041-0

Tran Xuan, Q., Truong, H. T. H., & Vo Quang, T. (2023). Omnichannel retailing with brand engagement, trust and loyalty in banking: The moderating role of personal innovativeness. International Journal of Bank Marketing, 41(3). https://doi.org/10.1108/ijbm-07-2022-0292

Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. Journal of Service Research, 13(3), 253–266. https://doi.org/10.1177/1094670510375599

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478.

Verhoef, P. C., Reinartz, W. J., & Krafft, M. (2010). Customer engagement as a new perspective in customer management. Journal of Service Research, *13*(3), 247–252. https://doi.org/10.1177/1094670510375461

Vargo, S. L., & Lusch, R. F. (2008a). Service-dominant logic: Continuing the evolution. Journal of the Academy of Marketing Science, *36(1)*, 1–10

Walz, A. M., & Celuch, K. G. (2010). The effect of retailer communication on customer advocacy: The moderating role of trust. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *23*, 95-110. https://www.jcsdcb.com/index.php/JCSDCB/article/view/25

Wang, J., Zhao, J., Dong, K., & Dong, X. (2022). Is financial risk a stumbling block to the development of digital economy? A global case. Emerging Markets Finance and Trade, 58(15), 4261–4270. https://doi.org/10.1080/1540496x.2022.2066995

Wang, Y., Po Lo, H., Chi, R., & Yang, Y. (2004). An integrated framework for customer value and customer-relationship-management performance: A customer-based perspective from China. Managing Service Quality: An International Journal, 14(2/3), 169–182. https://doi.org/10.1108/09604520410528590

Wen, C., Prybutok, V. R., & Xu, C. (2011). An integrated model for customer online repurchase intention. Journal of Computer Information Systems, 52(1), 14–23. https://doi.org/10.1080/08874417.2011.11645518

Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. Journal of the Academy of Marketing Science, 25(2), 139–153. https://doi.org/10.1007/BF02894350

Yang, H. C. (2012). Young American consumers' prior negative experience of online disclosure, online privacy concerns, and privacy protection behavioral intent. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, *25*, 179-202. https://jcsdcb.com/index.php/JCSDCB/article/view/123

Yang, W., & Mattila, A. S. (2016). Why do we buy luxury experiences? International Journal of Contemporary Hospitality Management, *28*(9), 1848–1867. https://doi.org/10.1108/ijchm-11-2014-0579

Yoo, J., Chen, J., & Frankwick, G. L. (2023). Customer influence on frontline employee work engagement. International Journal of Bank Marketing, 41(6), 1443–1463. https://doi.org/10.1108/ijbm-12-2021-0555

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. Journal of Marketing, 52(3), 2–22. https://doi.org/10.1177/002224298805200302

Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2000). A conceptual framework for understanding e-service quality: Implications for future research and managerial practice. In Marketing Science Institute eBooks (Vol. 115). Cambridge, MA.

Zeithaml, V. A., Verleye, K., Hatak, I., Koller, M., & Zauner, A. (2020). Three decades of customer value research: Paradigmatic roots and future research avenues. Journal of Service Research, 23 (4), 409–432. https://doi.org/10.1177/1094670520948134

Zhuang, H., Popkowski Leszczyc, P. T. L., & Lin, Y. (2018). Why is price dispersion higher online than offline? The impact of retailer type and shopping risk on price dispersion. Journal of Retailing, 94 (2), 136–153. https://doi.org/10.1016/j.jretai.2018.01.003

Zhou, T. (2013). Understanding continuance usage of mobile sites. Industrial Management & Data Systems, 113(9), 1286–1299. https://doi.org/10.1108/IMDS-05-2013-0215