Examining the role of consumer hope in the context of relationship marketing for a digital payment app

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Abstract

Purpose

The purpose of this paper is to empirically explore the relationship among digital quality, perceived social value, consumer hope, trust commitment, and word of mouth using relationship marketing and affect theory of social exchange in digital payment app.

Design/methodology/approach

A questionnaire was constructed, and responses were obtained from 301 Indian consumers who have used digital payment app. The authors tested the framework using partial least square structural equation modeling technique using smart pls.

Findings

The result indicates several significant relationships: digital quality and consumer hope significantly consumer hope; consumer hope partially mediates the relationships between digital quality and perceived social value with trust and commitment. Commitment partially mediates the relationship between trust and word of mouth.
Originality/value
The current study adds significantly to relationship marketing and Affect theory of social exchange.

Key-words: Digital quality, Consumer hope, trust, commitment, word of mouth, perceived social value, word of mouth, relationship marketing, Affect theory of social exchange.

Introduction
Technology development is playing an important role in making experiences convenient, efficient, transparent, and easier. In recent times during COVID, the usage of payment applications has increased substantially. Indian has set an example in setting up an umbrella organization, National Payment Corporation of India (NPCI), and developing the flagship product, Unified Payment Interface, which has crossed 2 billion transactions per month. Unified Payment Interface is a unique and allows the banks, fintechs, and technological giants to leverage digital payment app. The presence of existing banks, fintech companies, and global giants like google pay, amazon pay has generated a lot of interest in digital payment applications space. Digital transformation in financial services is a buzz word in current times. According to Verhoef et al. (2019), digital transformation is about digital technologies to develop a new digital business model that helps create value for the firm. On one hand, such transformation impacts business models, business processes, and organizational capabilities. On the other hand, consumers are keen to make their journey interesting through various touchpoints and have various options to choose from available competitive alternatives. In such a competitive world, the objective of the firm is to generate loyalty, thereby focusing on attitudinal loyalty through positive word of mouth. In the backdrop of technological development, scholars and practitioners need to understand the drivers to improve the relationship between customers and service providers in the context of digital financial services. Digital transformation has altered the financial landscape and it is becoming challenging for existing players to develop and nurture customer relationships. Digital payment apps are mobile app which is used for digital financial transactions. In recent times, the rapid adoption of smart phones has altered how customers interact with a brand. In recent years, apps have been investigated in the context of tourism app.
(Kamboj and Joshi 2020), dining app. (Shah et al. 2020), and ride-hailing app. (Fauzi and Sheng 2020).

We look into digital payment app. as digital transactions are increasingly becoming popular and have witnessed an acceleration in transactions and adaption. The basis of our conceptualization is the Affect Theory of Social Exchange (Lawler, 2001), which explains how consumer hope can influence relationship quality between exchange partners. Hope is relevant in the digital context since there is no physical interaction between consumer and firm. The research examines both the antecedents and consequences of hope using theories of relationship marketing and affect theory of social exchange. It examines consumer hope in the context of the digital payment environment. We, therefore, specifically tailor our research to investigate the antecedents to word of mouth in the context of digital payment space.

The study attempts to answer the following overarching research questions:

(1) Do digital quality and social value drive consumer hope in the context of the payments application domain? Further, to what extent does the consumer hope drive the trust and commitment.

(2) What is the mechanism through which trust and commitment within the payment applications domain affect word of mouth?

The paper makes the following contribution. First, the growth in electronic payments, and payment digital app. have attracted a lot of attention from policymakers, government, marketers, and consumers. While there is a lot of interest, the paper will contribute to the literature of digital payment apps. Second, the paper integrates the Affect theory of Social Exchange with relationship marketing theory. The paper considers digital quality and perceived social value as an antecedent to consumer hope. The paper links consumer hope with trust, commitment, and word of mouth. Third, attaining a positive word of mouth is an important objective for a marketer. The study on word of mouth can help the marketers to meet the objective in the context of digital payments. Fourth, the study is conducted in India at a time when Unified Payment Interface (UPI) has emerged a game-changer. The success of Unified payment
interface, on which digital payment applications are based, has led other countries to replicate the success. So, the study from the Indian context will be a significant contribution.

The objective of the study is to examine whether hope is the mediator between social value and digital quality with relationship marketing variables such as trust, commitment, and word of mouth. The study is relevant from the standpoint of the digital payment app domain. The study becomes even more critical as digital payments budgets are witnessing remarkable growth prospects. In the backdrop of the potential of payment applications, there is a scant research integrating quality, social value, trust, commitment, and word of mouth. The next section presents the theoretical background, followed by the conceptual framework and hypotheses. After detailing the analysis and the results of a quantitative survey of 301 respondents, this paper offers some implications, research limitations, and possible future research directions.

**Digital Payments**

Digital payment refers to an electronic device that allows an individual to make electronic transactions (Lee, & Kuo, 2015). This can include purchasing items on-line with a computer or using a smart phone to purchase something at a store. An individual's bank account can also be linked to the digital wallet. They might also have their driver’s license, health card, loyalty card(s) and other ID documents stored on the phone. The credentials can be passed to merchant’s terminal wirelessly via near field communication (NFC). Increasingly, digital payments are being made not just for basic financial transactions but also to authenticate the holder's credentials (Lee, & Kuo, 2015). An e-commerce payment system facilitates the acceptance of electronic payment for online transactions. Also known as a sample of Electronic Data Interchange (EDI), ecommerce payment systems have become increasingly popular due to the widespread use of internet-based shopping and banking (Lee, and Kuo, 2015).

Technology is the collection of techniques, skills, methods, and processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation (Breslin, 2011). Technology can be the knowledge of techniques, processes, and the like, or it can be embedded in machines that can be operated without detailed knowledge of their
workings. It has helped develop more advanced economies and has allowed the rise of a leisure class. Mobile payment refers to making payments for goods and services using mobile devices, including wireless handsets, personal digital assistants, radiofrequency devices, and near field communication-based devices (Chen & Nath, 2008). Mobile wallets are replacing the physical wallet and allow users to pay online by using mobile devices with retailers (Ramadan and Aita, 2018; Sharma et al., 2018). Sharma et al. (2018) aimed to investigate inhibitors influencing acceptance of mobile wallets in Oman.

**Theoretical Background**

The basis of our hypothesized model is based on the Affect theory of Social Exchange (Lawler, 2001). Hope plays an important role in basic human responses, such as goal setting, investment, coping, change, and purchase related decisionmaking (MacInnis and De Mello, 2005). Hope is distinct from expectations, self-efficacy, and optimism. Expectations are about the fulfilment of a desire without setting a definitive goal and without involvement of an action (Stajkovic, 2006). Self-efficacy is a belief in one's capabilities to organize and execute courses of action (Bandura, 1977). Studies by Youssef and Luthan (2007) considered expectation as a passive hope. Optimism is near to hope. The difference between optimism and hope is that optimism does not contain pathways by which the desired outcome is achieved (Synder, 1994). The theory explains the role of hope in developing perceptions of the value of a brand in the context of relationship marketing. Lawler (2001) relates the attainment of implicit or explicit benefits by participating partners to the nature and intensity of the emotional experience. According to Luthans et al., (2006), the approach covers setting challenging goals and planning for contingencies. During online association, hope results in trust and commitment (Muhammad et al. 2018). There are positive or negative implications. For example, when exchange lacks benefit to the partner, it can turn into negative emotions such as sadness, shame, and regret. In case exchanges are successful, exchange relationships are strengthened. Oettingen et al. (2001) explored how customer’s perceptions of value affect goal attainment. The understanding of hope can help in improving customer relationship outcomes, especially in an online context.
Trust and commitment are an important construct in relationship marketing domain (Palmatier et al. 2006). Relationship marketing has emerged as a dominant paradigm for both practitioners and researchers (Sheth et al., 2015). The seminal theory of trust and commitment was developed by Morgan and Hunt (1994). Trust and Commitment are considered as a mediator between antecedents such as communication, dependence and interdependence, opportunistic behavior, and relationship benefits on key outcomes such as cooperation, performance, loyalty, and conflict (Morgan and Hunt 1994, Palmatier et al., 2006; Palmatier et al., 2007). Trust is considered as the belief that one's channel partner can be relied on to fulfill its obligations and to behave in a benevolent manner (Scheer, 2012). Commitment is the belief that a channel relationship is so valued that it warrants “maximum efforts” to maintain it (Morgan & Hunt, 1994, p. 23; Palmatier et al., 2006). Trust and Commitment are considered to be important predictors for the word of mouth.

**Digital quality**

Digital payment refers to an electronic device that allows an individual to make electronic transactions. This can include purchasing items on-line with a computer or using a smartphone to purchase something at a store. Digital payments can be facilitated through linking individual's bank account to the digital wallet or payment using QR code. Increasingly, digital payment is helpful in getting the audit trails and person's authentication (Lee, & Kuo, 2015). An e-commerce payment system facilitates the acceptance of electronic payment for online transactions through provision of detailed and accurate information. E-commerce payment systems have become increasingly popular due to the widespread use of internet-based shopping and banking specific user needs (Lee, & Kuo, 2015). According to Gulllando and Basri (2019), digital product quality is the ability of a company to provide identity or feature on each of its products so consumers could recognize these products.

**Hope**

Hope is one of the key cognition-focused emotional mechanisms and plays an important role in daily life. Hope contributes to achieve goal-directed energy and pathways (Rego et al., 2014). The cognition-focused emotional status of hope helps in achieving successful performance of a particular task (Snyder, 2000). Hope has been studied in the context of positive organizational
behaviors and corporate social responsibility (Youssef and Luthan, 2007; Combs et al., 2010). There are scant studies with a focus on consumer hope. Hope has been studied in the context of customer choices (Poels and Dewitte, 2008; Kim et al., 2012), or enhancing self-regulatory outcomes, and ceasing maladaptive consumption practices (Macinnis and De Mello, 2005). To our knowledge, hope has not been explored customer perceived brand value on customer positive purchase experiences, such as satisfaction, trust, and commitment (Poels and Dewitte, 2008; Kim et al., 2012). Consumer hope results in overall satisfaction, which refers to a customer's general level of cognitive response, based on all of their experiences with the brand purchased from an online retailer (Oliver, 1993; Zhu et al., 2015).

Social Value

Societal values are criteria shared by the majority of a society in an ideal sense, all of which lead them to the better society. Societal values regulate and organize daily life. Values as honesty, sedulity, helpfulness, and modesty are some of these societal values. From a sociological perspective, real values are only unique to one society. Hence, values are original to one group at a single moment in time (Doğan, 2011). Social value is the perceived utility of a digital item based on the item’s ability to enhance one’s social well-being. The consumption of a digital item represents a social act in which symbolic meanings, social codes, relationships, consumer identity, and ego may be produced and reproduced. The motives for buying and consuming products depend on the manner in which a customer views him- or herself or wishes to be viewed by others. Apart from their functional utility, products have symbolic or conspicuous consumption values. Social value has been found to affect cognitions and accounts for behavior across a range of interpersonal decision-making contexts, specifically in the domain of negotiation settings and resource dilemmas (Rochet al., 2000). Social value has also been identified as a covariate, interacting with different emotional states and influencing the propensity to cooperate (Zeelenberget al.2008). To use the full explanatory power of social value as a psychological construct, we need to measure it efficiently, reliably, and validly.

Trust

Customer trust is defined as a customer's confidence in a brand's reliability and integrity. Attributions lead to the desire in a customer to build and maintain trust in an online retailer
offering a brand. These attributions are formed if the customer perceives that the brand from an online retailer acts with goodwill and portrays positive behavior toward them (Delgado-Márquez et al., 2015). Trust is based on the buyer's expectations that the seller will not have an opportunistic attitude and take advantage of the situation, but will behave in a dependable, ethical and socially appropriate manner, fulfilling his commitments despite the buyer's vulnerability and dependence (Gefen et al., 2003). Antecedent to consumer trust is perceived personalization, perceived usefulness of rating system, and service personal (Aw et al. 2019). Thus, the consumers' perspectives on trustworthiness are likely to determine the final purchasing decision between a buyer and a seller (Gupta et al., 2009). When deception or negative purchasing experiences occur, buyers generate negative attitudes (Gao and Bai, 2014), they no longer trust the seller, and they are likely to turn to alternatives for the fulfillment of their needs and desires (Lee, 2014) In the context of online relationships between brands and consumers, the level of positive emotional responses would also be determined by the quality of interaction and communication with the online platforms. Online retailers place considerable emphasis on consumer trust since they are more reluctant to purchase the products in which they are interested (Park et al., 2012) results in a higher level of trust in the brand. Customers who experience higher levels of hope toward an online brand should also experience higher levels of trust. Thus, if sellers want consumers to buy their products (purchase decision and money transfer), they need to pass the threshold for trustworthy behaviour (Benteet et al., 2012).

Commitment

Customer commitment is about a consumer’s desire to uphold a valued relationship so as to warrant maximum efforts at maintaining it (Moorman 1992). Customer commitment can take multiple forms, such as affective, normative, and continuance commitment (Meyer et al., 1997; Buch, 2015). Customer commitment is distinct from loyalty. While affective commitment is about customer’s emotional attachment to and identification with the brand, attitudinal loyalty is linked to word of mouth and behavioral loyalty is related to repurchase (Kim et al. 2011; Fullerton 2005). Consumer hope is linked to affective commitment based on theory of social exchange (Cook et al., 2013). Online retailers offer a variety of features via their online platforms to inform customers about the possible benefits, availability, and specification of brands. Brand engagement building initiatives, such as elevated customer service levels,
warranties, and loyalty programs, contribute in developing customer commitment (Islam et al. 2019). Some platforms also allow online customers to share their experiences with the brands or start dialogues with other customers who have used a specific brand. Therefore, online customers get product knowledge from both the online brands, as well as other customers. This results in the benefits developed through relationship with online brands. This mutually beneficial relationship is likely to result in affective commitment and encourages future actions (Dipietro et al., 2008; Buch, 2015).

**Word of mouth (WOM)**

Over the years, numerous studies have shown that word of mouth plays an important role in consumer choice as well as post-purchase perceptions (Bone, 1995; Hennig-Thurau and Walsh, 2004). Various forms of word of mouth (WOM) include both offline communication (traditional) WOM and internet facilitated online WOM (eWOM). Consumer repatronage intention was found to mediate between relationship satisfaction and word of mouth (Mohammad et al. 2017). The offline WOM is about the role of sender to pass the information based on the belief that it will be beneficial to the user. The acceptance of WOM is based on the premise that many consumers trust communications from other people (Goldsmith and Horowitz, 2006). The Internet and supporting information technology influence the consumer information search process across many levels, including the amount of information searched, the type of information sought, and the relative importance of the information acquired (Kulviwat et al., 2004). Internet applications of WOM focused on product ratings. Consumers increasingly rely on websites like eBay, Amazon, CNET and Epinions to validate word of mouth (WOM) from other consumers. Not surprisingly, most of the academic research into eWOM has focused on online information research related to tangible product purchase (e.g. Ratchford et al., 2003; Klein and Ford, 2003). Online WOM provides a new venue for retailers to reach consumers and to strategically influence consumer opinions. Anecdotal evidence has surfaced in recent years, suggesting that online WOM could be successfully leveraged as a new marketing tool (Dellarocas 2003). Studies indicate that the volume of digital WOM is positively associated with product sales, but the relationship between WOM valence and sales is often mixed (Liu 2006). Chevalier and Mayzlin (2006) found that improvement in volume and valence of a book’s review leads to an increase in sales. However, with a similar data set from Amazon.com, Chen et al. (2004) unlike person-to-
person WOM, online WOM is stored by review sites, and its influence could go beyond the concurrent term.

**Hypotheses Development**

Digital Quality, Social Value, and Hope

Previous studies show that customer’s perception about value contributes to overall well-being (Bowlby, 1977; Feeney and Noller, 1990). Digital transactions are characterized by product being used, or transacted without being touched and felt by the customer. According to Chang and Chen (2009), perception of quality can be built through interactivity, reliability, usability, content quality, and security. In an online setting, the perception of quality can happen without actual experience (Ha, 2006). The attachment theory holds that customer perceived value results in promoting the physical and psychological well-being of a customer (Goldberg et al., 2013). The positive customer experience can result in hope for continuing better relationships (Fazal-e-Hasan 2018). We posit the hypotheses as follows:

H1: Digital quality has a positive impact on consumer hope in the context of digital applications.

Social value is about utility enhanced by a person’s ability to improve self-concept (Sweeney and Soutar, 2001). The social status of the consumer is enhanced with the increase in utility derived from the brand’s ability to enhance self-concept. The social utility can contribute in enhancing consumer confidence, thereby resulting in more positive goal-specific thoughts and thus enabling active social interactions (Snyder, 2002). This will further result in improving consumer-brand relationships in the form of satisfaction, trust, and commitment. In today’s era, the consumer can become more socially connected with a common payment application. For example, in order to transfer and use transactions, both the persons or entity can be connected through a common payment platform. Payment agnostic characteristics can enhance social value. Thus, the advancement of digital financial opportunities can have a significant impact on a consumer’s social communication mode.

H2: Social value has a positive impact on consumer hope in the context of digital applications.
Hope, Trust, and Commitment
Attributions theory holds that hope is related to the positive outcome (goal) to an external agent. In the case of digital transactions, an external agent can be a payment application. According to attribution theory, it leads to the desire to build and maintain trust. According to Delgado-Marquez et al. (2015), attributions are developed when a brand exhibits positive behavior towards them. In digital transactions, it is likely that the relationships can be formed due to the quality of interaction and communication. This will further result in positive emotions due to awareness of the advantages that consumers will get. This will further contribute in developing trust. Thus, consumers who develop higher levels of hope can form higher levels of trust. Thus, we propose the following hypotheses:

H3: Consumer hope has a positive impact on consumer trust in the context of digital applications.

We rely on Social exchange theory to examine how consumer hope results in affective commitment. In the hope of receiving continuing benefits, consumer is keen to participate in relationship process (Rhoades and Eisenberger, 2002). Choice is available for digital customer in the form of possible benefits, availability, and brand specification. There is continuous information available about product knowledge in digital format. Social media allows the customer to share their experiences. This mutually beneficial relationship can result in affective commitment (Buch 2015). Thus, we propose the following hypotheses

H4: Consumer hope has a positive impact on commitment in the context of digital payment applications.

Trust, Commitment, and Word of Mouth
The seminal paper by Morgan and Hunt (1994) considered trust as the key mediating variable to the development of long-term customer relationships. Gwinner et al. (1998) indicated that trust plays an important role in developing a relationship in service settings. According to Garbarino and Johnson (1999), both trust and commitment affect the future purchase intentions of an
exchange partner. Oh (2002) found that trust has a positive effect on relationship intention and repurchase intention. Trust is the most important tool to build customer loyalty.

For Commitment to happen, it is necessary that both parties want the relationship to endure and are prepared to put an effort in maintaining the relationship (Morgan and Hunt, 1994). Commitment drives loyalty, viz. attitudinal loyalty (Rauyruen and Miller, 2007), referrals (Gundlach et al., 1995), and behavioral intentions (Rosenbaum et al., 2006). Researchers have also linked commitment directly to word of mouth (Harrison-Walker, 2001; Hennig-Thurau et al., 2002; Brown et al., 2005).

H5: Consumer trust has a positive impact on word of mouth in the context of digital payment applications.

H6: Consumer commitment has a positive impact on word of mouth in the context of digital payment applications.

H7: Consumer trust has a positive impact on commitment in the context of digital payment applications.

Methodology

We test our hypotheses using a sample of individuals. The research instrument is a questionnaire that is sent in an online mode. The survey questions were developed all items were adapted from the extant literature. This contributed in ensuring validity and reliability of the measurement model. We involved the experts to scrutinize and validate the survey instrument. We involved 30 students in a pilot survey. The feedback during the pilot survey helped to improve the questionnaire. We thus feel that the questionnaire is sound and can investigate the domain well. The individuals who did not respond in the first attempt were subsequently contacted with a gentle reminder to complete the survey. Final measurement items for each construct in the model are based on a 7 point Likert scale. Table 1 presents the constructs and sources of items. In order to ensure the appropriateness of the sample, screening questions covered whether respondents used any of digital payment apps. Using the questionnaire, respondents provided information on
their relationship with about digital payment app. A total of 363 customers were contacted and 301 usable responses were received. This was arrived after excluding incomplete responses. The sample data were normally distributed and number of missing values met the criteria. The non-response bias was analyzed using Chi-square and t-tests. The test confirmed non-significant differences in terms of demographic information between early and late respondents. We found non-significant difference between response and non-response samples using chi-square and t-test. The non-significant difference suggests that non-response is not a serious concern.

Sample
Total 301 responses were collected. The sample consisted of 182 male members and 119 female members. In terms of age group classification, 87 were in the range of 18-29 years; 134 in the range of 30-44 years, 66 in the range of 45-66 years, and 14 in the range of 66 and above. In terms of occupation: 122 were in employment with private; 65 were in employment with government, and 98 were self-employed. We were collected about the preferred brand for the usage payment app.: 96 preferred Google Pay, 47 preferred Paytm, 63 preferred Phone Pe, and 39 preferred Bhim.

Measures
Digital quality was operationalized with five items adopted from the scale by Pappas (2006); Perceived social value of brand was adapted using the scale adapted from Sweeney and Soutar (2001) and Fazal-e-Hasan et al. (2018), Trust using three items was adopted from the scale by Mukherjee and Nath (2007); Commitment using three items adopted from the scale by Mukherjee and Nath (2007), Hope using items adapted from Sweeney and Soutar (2001) and Fazal-e-Hasan (2018), and Word of mouth was adapted through items derived from Gremler and Gwinner (2000). A seven-point Likert scale (1-7) was used for all measures.

Results
Psychometric properties of the constructs were evaluated by conducting a confirmatory factor analysis (CFA) on the data using smart pls. The fit of the data met the criteria of goodness of fit.

Insert Table 1 about Here
Assessment of measures

The analysis also indicated a high level of scale reliability with coefficient alpha for all constructs above 0.70 (see Table 2). As observed from Table 2, the cronbach alpha coefficient values met the minimum cut-off value of 0.70 for all the constructs (Hair et al. 2012). The values of composite reliability were more than 0.70 and values of average variance extracted (AVE) were more than 0.50. This met the criteria of convergent validity. Discriminant validity between all construct pairs was confirmed through Fornell and Larcker’s (1981) test as shown in the lower left of Table 3. While referring to Table 3, the values of the squared root of average variance extracted (AVE) is higher than that of correlations, confirming the discriminant validity.

As multicollinearity can affect results, we examined tolerance and variable inflation factor (VIF) values for evidence of multicollinearity (Kline, 1998). As the values of VIF were below 10, we can confirm absence of multicollinearity (Hair et al., 2011).

Common Method Bias

We intend to reduce common method variance by ensuring confidentiality to the respondents. Respondents were not asked to give their names. Further, it was told that there are no right or wrong answers. Subsequent to the preliminary analysis, we examined the variables for the presence of common method bias using Podsakoff et al. (2003) recommendations. We followed a Harman’s single factor test for data bias. The outcome exhibits that the total variance explained by the single factor was about 27 % which is below the standard cut-off value of 50%. It indicates that common method variance is not a serious concern.

Results

The sample size was sufficient based on Hair et al. (2017) recommendations that sample size should be greater than the ten times the largest structural model (Hair et al., 2017). We used the partial least squares approach, which is a component-based method to assess the interrelationships of all the latent constructs simultaneously (Chin 1998). The PLS model
estimation was carried out using SmartPLS 3.0. We followed the re-sampling procedures with 500 replications are used to test the statistical significance (Fornell and Larcker 1981). The results were assessed at a 5 percent significance level, and we relied on t statistic value at the 0.05 level. If the t statistic value is greater than 1.96, the path is significant (Efron and Gong 1983). The R square of 0.690 indicates that a model explains a significant amount of variance for word of mouth regarding digital payment applications. The R square of extended constructs was in a reasonable range. (consumer hope= 0.797; trust=0.581; commitment=0.729). The values of path coefficients were greater than 0.10, suggesting that the model adequately fits the data (Chin, 2010). The results are summarized in Table 4.

Direct effects
The results show that digital quality and perceived social value are antecedents to consumer hope. As expected, the relationships between digital quality and consumer hope (β=0.430; p<0.00) and between perceived social value and consumer hope (β=0.538; p<0.00) was positive and significant. Thus, Hypotheses 1 and 2 are supported. The link between consumer hope and trust (β=0.760; p<0.00) and consumer hope and commitment (β=0.305; p<0.00) was positive and significant. Thus, hypotheses 3 and 4 were supported. The link between trust and commitment (β=0.598; p<0.00); trust and word of mouth (β=0.318; p<0.00) and commitment and word of mouth (β=0.548; p<0.00) was significant and positive. Thus, all the hypotheses were supported.

Mediating effects
We followed the bootstrapping method proposed by Preacher and Hayes (2008) for the mediation test. According to Hair et al. (2017), the mediation hypotheses are supported if the following conditions are satisfied. (1) the direct effect, without including the mediator variable in the PLS model path, is significant; (2) the variance accounted for (VAF) is greater than 60 % in the case of full mediation and greater or equal to 20 % in the case of partial mediation. If VAF < 20 %, there is no mediation. VAF represents the ratio of indirect to total effect (Ntizet et al., 2016; Ramkumar et al., 2019).

As observed in Table 5, all five path coefficients are significant. This fulfills the condition of effect between an independent variable and a dependent variable without considering the effect
of a mediator. Table 6 shows the results of the second condition. The indirect effect size was calculated by multiplying the direct effect of the independent variable on the mediator with the direct effect. The standard deviation of these indirect effect sizes across the subsamples are provided in Table 6. The t value is also depicted in Table 6. As part of the next step, we find the strength of mediation through variance accounted for, which is obtained as an indirect effect divided by the total effect. Since the value of VAF is between 20 % and 80 %, it meets the criteria of partial mediation.

Multi group analysis
The structural model was cross validated across the gender using multi-group permutation tests (Henseler et al., 2009). Despite the several differences in terms of significant path estimates between the gender, as indicated in Table 8, the multi-group tests showed significant differences between the two groups on antecedents to consumer hope, viz, digital quality and consumer hope; perceived social value and consumer hope. Significant differences were not observed in other relationships. This result signifies that gender exhibit a moderating role between digital quality and hope, and perceived social value consumer hope. The path coefficient for both male and female groups for all relationships was significant and positive.

Discussions and Implications
A unique trend has set with the growing popularity of mobile apps through smart phones. In simple words, a mobile app is a software application developed specifically for use on small, wireless computing devices, such as smart phones and tablets, rather than desktop or laptop computers (Kapoor and Vij, 2018). The mobile app, which is used for digital financial transactions, refers to digital payment apps. The rapid adoption of smart phones and subsequent development of mobile applications has altered the ways in which customers interact with a brand. There is a growing proliferation of mobile technologies. It has been estimated that over 6 billion apps have been downloaded in India (Statistics, 2017). The growing merchant apps have provided increased convenience. Today, consumers have an option to purchase online. There is increased usage of online usage as internet users have increased from merely 0.1 million in 2006 to around 100 million in 2017, showing a growth of 900% (Kearney, 2016). Mobile apps provide
an effective channel for companies to connect with their customers (Ostdick, 2016). The mobile platform has fundamentally revolutionized the manner in which companies develop customer relations. This study examined a theoretically derived structural model of digital quality, perceived social value, consumer hope, trust, commitment, and word of mouth in the context of digital payment applications. The study is timely, considering the accelerated growth in electronic payments. Digital payments offer enormous scope in terms of their usage and acceptance. The scale on digital quality can be compared with a recent study by Kapoor and Viz (2018), which covered aspects of visual, information, navigation, and collaboration. The results showed that digital quality and the perceived social value were positively and significantly related to consumer hope. The path coefficients of digital quality → consumer hope was 0.430 and perceived social value → consumer hope was 0.538. This signifies that both digital quality and perceived social value play an important role in generating consumer hope. Further, consumer hope partially mediated the relationship between digital quality and trust, digital quality and commitment, perceived social value and trust, and perceived social value and commitment. The findings provide empirical support for the affect theory of social exchange.

There is scant research that investigates the role of consumer hope. Consumer hope is a unique construct that is different from expectations, optimism, and self-efficacy. With the growing usage of social media, higher path coefficients are consistent with the growing importance of social value. The higher acceptability of digital payment applications can also be related to a common payment platform that is agnostic and contributes to generating higher social value.

Relationship marketing theory delves into the role of trust, and commitment. The paper covers the relationship marketing theory and links consumer hope with relationship marketing theory. To our knowledge, scant studies are available relating consumer hope to relationship marketing theory. The findings can be compared with Fazal-e-Hasan (2018), which examined consumer hope with relationship marketing in the context of the online retailing environment. Fazal-e-Hasan (2018) found that consumer hope was positively related to consumer-brand relationship outcome variables and confirmed the moderating role of consumer goal attainment. Fazal-e-Hasan (2018) considered consumer perceived brand quality, consumer price, consumer perceived social value, and consumer perceived brand value emotional as an antecedent to consumer hope and consumer trust, consumer satisfaction, and consumer commitment as a consequence to consumer hope. Our findings confirm that commitment partially mediates between trust and
word of mouth. Fazal-e-Hasan (2018) did not consider the role of word of mouth which is the objective of the marketer. According to Daughtery and Hoffman (2014), word of mouth is one of the most influential factors affecting consumer behavior. This factor becomes important in the context of payment products, which are difficult to evaluate prior to consumption or usage. In the digital era, word of mouth comes in the form of electronic word of mouth. As a result, marketers consider word of mouth as a new source of listening to consumer needs and have an option to adjust to promote their products and services.

Conclusion, Limitations, and Scope for future research

A close review of digital payments shows that previous research has seldom examined consumer hope and relationship marketing in digital payments. However, retaining customers and facilitating their continued purchase is crucial for digital payment space. Thus, the purpose of this study was to examine the digital payment app. We proposed and empirically examined an integrated model that explains the payment app. The results indicated that digital quality and perceived social value affect consumer hope. Consumer hope acts as a mediator between digital quality and perceived social value with trust and commitment.

While the study is done with methodological rigor, the findings should be interpreted with caution. First, we conducted this research in India, where digital payment app. is growing rapidly but at the same time, it offers enormous potential. Thus, the study can be conducted in payment space. Second, Future research could be explored with different constructs. Third, the use of a cross-section sample is a potential limitation in arriving generalizability of the results to other settings or consumer groups. Future research can cover experimental study and longitudinal analysis. Fourth, since this study utilized a partial payment transaction, future study can cover other activities the effects of digital app design factors that were not experienced by participants (Kapoor and Vij, 2018). Thus, future research should replicate this study in a field setting and cover actual digital transactions. Future studies can be designed in such a manner that the pre-purchase as well as post-purchase attributes are also examined.
Table 1: Construct and Its items

<table>
<thead>
<tr>
<th></th>
<th>I felt that payment app. brand is very dependable</th>
<th>Trust</th>
<th>Mukherjee and Nath (2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I felt that payment app. brand is of high integrity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I trust the payment app. brand as a safe medium for transaction and purchase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am very committed in maintaining relationship with the payment app. brand</td>
<td>Commitment</td>
<td>Mukherjee and Nath (2007)</td>
</tr>
<tr>
<td>5</td>
<td>I feel a very high degree of association with the payment app. brand I transact with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I put the efforts in maintaining the relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>It is important that the payment app. brand provides detailed information</td>
<td>Digital Quality</td>
<td>Pappas (2016)</td>
</tr>
<tr>
<td>8</td>
<td>It is important that payment app. brand provides accurate information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>It is important that payment app brand can be depended upon what it is promised</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>It is important that payment app brand understand and adapts to specific user needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>It is important that payment app brand deals with high quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The payment app. brand makes me socially acceptable</td>
<td>Perceived brand value social</td>
<td>Sweeney and Soutar (2001)</td>
</tr>
<tr>
<td>14</td>
<td>The payment app brand benefits me during the present situation</td>
<td>Hope</td>
<td>Sweeney and Soutar (2001)</td>
</tr>
<tr>
<td>15</td>
<td>The payment app, brand will help to pursue my goals during the present situation</td>
<td></td>
<td>Fazal-e-Hasan, S. M., Ahmadi, H., Mortimer, G., Grimmer, M., &amp; Kelly, L. (2018)</td>
</tr>
<tr>
<td>16</td>
<td>I encourage my friends to interact with the payment app. brand</td>
<td>Word of Mouth</td>
<td>Gremler and Gwinner (2000)</td>
</tr>
<tr>
<td>17</td>
<td>I recommend the payment app. brand when anyone seeks my advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I recommend the payment app. brand to my friends</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 2: Measurement Quality Indicators

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicator</th>
<th>Loading</th>
<th>Cronbach Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Quality</td>
<td>DQ1</td>
<td>0.924</td>
<td>0.940</td>
<td>0.957</td>
<td>0.847</td>
</tr>
<tr>
<td></td>
<td>DQ2</td>
<td>0.916</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DQ3</td>
<td>0.944</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DQ4</td>
<td>0.896</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Social Value</td>
<td>PSV 1</td>
<td>0.955</td>
<td>0.908</td>
<td>0.956</td>
<td>0.915</td>
</tr>
<tr>
<td></td>
<td>PSV 2</td>
<td>0.959</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>H 1</td>
<td>0.956</td>
<td>0.906</td>
<td>0.955</td>
<td>0.914</td>
</tr>
<tr>
<td></td>
<td>H 2</td>
<td>0.956</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>T 1</td>
<td>0.924</td>
<td>0.917</td>
<td>0.948</td>
<td>0.859</td>
</tr>
<tr>
<td></td>
<td>T 2</td>
<td>0.954</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T 3</td>
<td>0.901</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>C 1</td>
<td>0.917</td>
<td>0.912</td>
<td>0.944</td>
<td>0.856</td>
</tr>
<tr>
<td></td>
<td>C 2</td>
<td>0.948</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C3</td>
<td>0.900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word of mouth</td>
<td>WOM 1</td>
<td>0.937</td>
<td>0.948</td>
<td>0.967</td>
<td>0.896</td>
</tr>
<tr>
<td></td>
<td>WOM 2</td>
<td>0.976</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WOM 3</td>
<td>0.943</td>
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</table>
Table 3: Discriminant Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Digital Quality</th>
<th>Perceived Social Value</th>
<th>Hope</th>
<th>Trust</th>
<th>Commitment</th>
<th>Word of mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Quality</td>
<td>0.920</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Social Value</td>
<td>0.700</td>
<td>0.957</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hope</td>
<td>0.806</td>
<td>0.838</td>
<td>0.956</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.843</td>
<td>0.643</td>
<td>0.762</td>
<td>0.927</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>0.819</td>
<td>0.730</td>
<td>0.761</td>
<td>0.831</td>
<td>0.922</td>
<td></td>
</tr>
<tr>
<td>Word of mouth</td>
<td>0.755</td>
<td>0.741</td>
<td>0.775</td>
<td>0.773</td>
<td>0.812</td>
<td>0.952</td>
</tr>
</tbody>
</table>

Table 4: Results of the structural model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Path coefficient</th>
<th>T Statistic</th>
<th>P value</th>
<th>Coefficient at confidence levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.5 %</td>
</tr>
<tr>
<td>H1</td>
<td>Digital quality → Consumer Hope</td>
<td>0.430</td>
<td>10.63</td>
<td>0.000</td>
<td>0.35</td>
</tr>
<tr>
<td>H2</td>
<td>Perceived Social value → Consumer Hope</td>
<td>0.538</td>
<td>12.37</td>
<td>0.000</td>
<td>0.44</td>
</tr>
<tr>
<td>H3</td>
<td>Consumer Hope → Trust</td>
<td>0.762</td>
<td>26.28</td>
<td>0.000</td>
<td>0.69</td>
</tr>
<tr>
<td>H4</td>
<td>Consumer Hope → Commitment</td>
<td>0.305</td>
<td>5.08</td>
<td>0.000</td>
<td>0.18</td>
</tr>
<tr>
<td>H5</td>
<td>Trust → Commitment</td>
<td>0.598</td>
<td>10.3</td>
<td>0.000</td>
<td>0.48</td>
</tr>
<tr>
<td>H6</td>
<td>Trust → Word of mouth</td>
<td>0.318</td>
<td>3.9</td>
<td>0.000</td>
<td>0.16</td>
</tr>
<tr>
<td>H7</td>
<td>Commitment → Word of mouth</td>
<td>0.548</td>
<td>6.9</td>
<td>0.000</td>
<td>0.39</td>
</tr>
</tbody>
</table>
Table 5: Significant analysis of path coefficient without mediator

<table>
<thead>
<tr>
<th>Path</th>
<th>Path coefficient</th>
<th>T statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust → Word of mouth</td>
<td>0.773</td>
<td>27.75</td>
</tr>
<tr>
<td>Digital quality → Trust</td>
<td>0.843</td>
<td>38.40</td>
</tr>
<tr>
<td>Digital quality → Commitment</td>
<td>0.820</td>
<td>36.70</td>
</tr>
<tr>
<td>Perceived Social Value → Trust</td>
<td>0.643</td>
<td>14.18</td>
</tr>
<tr>
<td>Perceived Social Value → Commitment</td>
<td>0.730</td>
<td>20.17</td>
</tr>
</tbody>
</table>

Table 6: Results of the mediation analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Path</th>
<th>Indirect Effect size</th>
<th>S .D. of Indirect effect</th>
<th>Empirical t value</th>
<th>VAF</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digital quality → Consumer Hope → Trust</td>
<td>0.328</td>
<td>0.037</td>
<td>8.951</td>
<td>0.76</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>2</td>
<td>Digital Quality Consumer Hope → Commitment</td>
<td>0.131</td>
<td>0.028</td>
<td>4.666</td>
<td>0.30</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>3</td>
<td>Perceived social value → Consumer Hope → Trust</td>
<td>0.410</td>
<td>0.032</td>
<td>12.658</td>
<td>0.76</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>4</td>
<td>Perceived social value → Consumer Hope → Trust</td>
<td>0.164</td>
<td>0.036</td>
<td>4.510</td>
<td>0.40</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>5</td>
<td>Trust → Commitment → Word of mouth</td>
<td>0.328</td>
<td>0.057</td>
<td>5.768</td>
<td>0.50</td>
<td>Partial Mediation</td>
</tr>
</tbody>
</table>
Table 7: Total effect of constructs on endogenous variables

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>T-Statistic</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Quality (\rightarrow) Consumer Hope</td>
<td>0.430</td>
<td>10.63</td>
<td>0.000</td>
</tr>
<tr>
<td>Perceived social value (\rightarrow) Consumer Hope</td>
<td>0.538</td>
<td>12.372</td>
<td>0.000</td>
</tr>
<tr>
<td>Trust (\rightarrow) Word of mouth</td>
<td>0.645</td>
<td>13.310</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 8: Multi Group Analysis using Gender as a moderator

<table>
<thead>
<tr>
<th>Path</th>
<th>Male</th>
<th>Female</th>
<th>Group 1 v/s Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\beta)</td>
<td>Confidence Interval</td>
<td>P value</td>
</tr>
<tr>
<td>Digital quality (\rightarrow) Consumer Hope</td>
<td>0.605</td>
<td>0.482-0.694</td>
<td>0.000</td>
</tr>
<tr>
<td>Perceived Social value (\rightarrow) Consumer Hope</td>
<td>0.366</td>
<td>0.281-0.468</td>
<td>0.000</td>
</tr>
<tr>
<td>Consumer Hope (\rightarrow) Trust</td>
<td>0.741</td>
<td>0.652-0.808</td>
<td>0.000</td>
</tr>
<tr>
<td>Consumer Hope (\rightarrow) Commitment</td>
<td>0.279</td>
<td>0.136-0.426</td>
<td>0.000</td>
</tr>
<tr>
<td>Trust (\rightarrow) Commitment</td>
<td>0.635</td>
<td>0.489-0.757</td>
<td>0.000</td>
</tr>
<tr>
<td>Trust (\rightarrow) Word of mouth</td>
<td>0.299</td>
<td>0.094-0.456</td>
<td>0.001</td>
</tr>
<tr>
<td>Commitment (\rightarrow) Word of mouth</td>
<td>0.550</td>
<td>0.380-0.730</td>
<td>0.000</td>
</tr>
</tbody>
</table>
References


29. Fornell, C. and Larcker, D.F.,(1981),"Structural equation models with unobservable variables and measurement error" *Algebra and statistics*.Vol.18 No.3,pp. 382-388.


84. Scheer, M., (2012)," Are emotions a kind of practice and is that what makes them have a history)? A Bourdieuan approach to understanding emotion". *History and theory*, Vol. 51 No.2, pp.193-220.


