Positive and negative word of mouth (WOM) are not necessarily opposites: A reappraisal using the dual factor theory

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ABSTRACT

Prior research has not systematically investigated the enablers and inhibitors in conjunction to measure consumer behavior toward mobile wallets (m-wallets), focusing either on the adoption or the resistance perspective only. Similarly, antecedents and consequences of the dichotomous nature of word of mouth for m-wallets have also remained obscure so far. The present research proposes to address this void in the accumulated learnings by examining both enablers and inhibitors of mobile wallets (m-wallets) as antecedents of valence of word of mouth (positive and negative; PWOM and NWOM, respectively). Grounded in Dual Factor Theory, this study aims to explore consumers' continued use intentions resulting from the WOM valence. The findings reveal that enablers (perceived information quality, perceived ability, and perceived benefit) drive PWOM, while the inhibitors (perceived cost, perceived risk, and perceived uncertainty) spur NWOM. Furthermore, the results show that only PWOM drives the continuance intentions of m-wallet users. Therefore, the study proves that the antecedents of PWOM are different from those of NWOM.

1. Introduction

The modes of digital payment, including both mobile- and non-mobile-based payments, have rapidly evolved. Digital payments accounted for USD 3.9 billion worth of transactions globally in 2019 and are expected to reach a value of USD 4.9 billion in 2020, with a projected annual growth rate of 13.4% until 2024 (Statista, 2020). In the digital payment sector, mobile payments (m-payments; a generic term used to refer to all mobile device-enabled transactions) have gained increasing prominence (Clement, 2019), with credit and debit cards being the most accepted method among online merchants, and mobile wallets (m-wallets, described as special m-payment methods), such as Apple Pay and Visa Checkout, accepted by just 29% of these merchants (Clement, 2019). Although m-wallets offer great convenience to consumers (Shin, 2009), they account for only 4% of the point of sale transactions globally (Bepari, 2019). The low acceptance of m-wallets by

merchants has also led to comparatively lower usage, despite their support for both point of sale and remote payments (Sorensen, 2018).

Scholars have also kept pace with the evolving m-payment dynamics. Studies conducted during the past few years have extensively examined consumer behavior toward m-payments to capture the reasons motivating their adoption. For instance, Johnson et al. (2018) revealed perceived ease of use, relative advantage, and visibility as possible reasons behind consumers' positive intentions to use m-payments. Regarding m-wallets specifically, Kaur et al. (2020a) found that observability, relative advantage, and compatibility were associated with use intentions. Tang et al. (2014), meanwhile, suggested that habits, performance, and effort also impact user intentions toward m-wallets. Several scholars in this area have applied key technology acceptance theories to elaborate upon the consumers' reasons for using m-wallets (e.g., Chatterjee and Bolar, 2019), including the Technology Acceptance Model (TAM) (Chawla and Joshi, 2019; Shaw, 2014),

Unified Theory of Acceptance and Use of Technology (UTAUT) (Chawla and Joshi, 2019; Singh et al., 2017), and the updated UTAUT2 (Tang et al., 2014).

Recent research, however, has gone beyond consumers' pre-adoption intentions to examine their post-adoption behavior. For instance, Talwar et al. (2020c) examined the antecedents of continuation intentions toward m-wallets. Gupta et al. (2020) revealed that performance expectations in the pre-adoption stage influenced confirmation after actual adoption, subsequently influencing post-adoption satisfaction. Similarly, Amoroso and Ackaradejruangsri (2019) argued that the attitude and personal innovativeness of consumers drive their satisfaction regarding m-wallet use. Compared with this limited body of literature, post-adoption recommendation or word of mouth (WOM) intentions toward m-wallets have been examined by even fewer empirical studies and thus remain under-explored (e.g., Kaur et al., 2020a; 2020b; Shaw, 2014; Singh and Sinha, 2020), especially regarding the possible reasons driving consumer resistance and their lower acceptance rate (Kaur et al., 2020b).

Using Innovation Resistance Theory, Kaur et al., 2020b suggested that value, risk, and usage barriers reduce consumers' intentions to use m-wallets, while Leong et al. (2020) found that value, risk, usage, and tradition barriers similarly increased resistance. Sharma et al. (2018) further identified complexity, lack of skills, anxiety to use new technology, and low awareness of benefits as the main inhibitors of m-wallet use intention.

We have thus identified three key gaps in the prior literature on m-wallets: first, prior literature is skewed toward the adoption and usage intention perspective and offers a limited view on consumer resistance toward m-wallets (Kaur et al., 2020b). In other words, the focus of the extant studies is largely on the enablers promoting m-wallet use, while little attention has been paid to the inhibitors. The drivers of consumer resistance, however, are of equal importance as the antecedents of adoption; consumer resistance, in particular, can hamper the diffusion of any innovation (Seth et al., 2020; Talwar et al., 2020d) by driving the intention to adopt and continue using a product or service (Talwar et al., 2020c). Consequently, this overemphasis on the adoption paradigm has severely constrained the accumulated knowledge available for service providers, scholars, and managers. Second, WOM or recommendation intentions are crucial modes of sharing product or service information (Jeuring and Haartsen, 2017), significantly impacting consumer intentions and decisions as a result (East et al., 2016, 2017; Iyer and Griffin, 2020). However, there is still a limited understanding related to the WOM toward m-wallets, specifically as the motivation to indulge in WOM has both inward (e.g., self-affirmation and self-enhancement) and outward (e.g., intention to help, bond socially, and social comparison) orientations (Alexandrov et al., 2013) that need to be better understood in this context. Furthermore, the valence of WOM can be either positive (PWOM) or negative (NWOM) (Naylor and Kleiser, 2000) and is driven by distinct motives (Alexandrov et al., 2013) that influence consumer behavior differently. However, to the best of our understanding, no prior study has examined the drivers of PWOM and NWOM and their association with consumer intentions in the context of m-wallets. This is a critical research gap because WOM has been shown to represent the informal learning impacting usage intentions toward m-wallets (Shaw, 2014). Third, the theoretical perspectives of the extant literature are largely limited to technology acceptance theories, such as the previously mentioned TAM and UTAUT, as well as the Diffusion of innovation theory (DOI). The knowledge space is thus limited regarding the antecedents of consumer response to m-wallets.

We aim to bridge these gaps by examining whether and how inhibitors and enablers of m-wallet use are associated with PWOM and NWOM and how PWOM and NWOM may, in turn, be associated with continued m-wallet usage intention. The current study employs a novel theoretical lens, the Dual Factor Theory (DFT) (Cenfetelli, 2004; Cenfetelli and Schwarz, 2011), to the context of m-wallets. Research employing both enablers and inhibitors is needed to provide a complete understanding of the variables affecting consumer behavior, especially as these factors are not opposites of each other (e.g., Cenfetelli, 2004). Accordingly, we propose two research questions (**RQs**): **RQ1.** Do enablers and inhibitors influence NWOM and PWOM differently? **RQ2.** Do NWOM and PWOM influence continued usage intentions of m-wallets differently? We collected and analyzed cross-sectional data of 964 m-wallet users to address these research questions. The findings indicate that perceived information quality, ability, and benefits act as enablers and positively influence PWOM. On the other hand, perceived cost, risk, and uncertainty act as inhibitors and positively influence NWOM. Furthermore, PWOM positively influenced continued intentions to use m-wallets, while NWOM did not.

Our study is the first empirical attempt to bring together the dual influence of enablers and inhibitors of m-wallet adoption on PWOM and NWOM. It is also the first known empirical study to examine the dichotomous bifurcation of WOM (i.e., PWOM and NWOM) and makes a significant contribution to the literature on WOM as a whole by revealing that PWOM and NWOM are not opposite of each other. In other words, the factors that increase PWOM do not decrease NWOM or vice versa.

2. Dual Factor Theory

The Dual Factor Theory (DFT) of technology usage proposes that enablers and inhibitors are the two distinct sets of antecedents (Cenfetelli, 2004; Cenfetelli and Schwarz, 2011). DFT is a well-accepted theory and has been applied in various contexts, including social media platforms (Sullivan and Koh, 2019) and non-adoption of technological innovations (Wolverton and Cenfetelli, 2019). In the present study, we utilize the theoretical lens of DFT to examine the influence of enablers and inhibitors on PWOM and NWOM toward m-wallets, as well as the association of PWOM and NWOM and continued m-wallet usage.

Enablers (inhibitors) are the factors encouraging (discouraging) the adoption of a product or service (Najmul Islam et al., 2020). As summed up by Cenfetelli and Schwarz (2011) and Cenfetelli (2004), the key propositions of the DFT in terms of enablers and inhibitors are: (a) inhibitors are distinct from enablers and should not be positioned as merely their opposites. Negative aspects can have an existence that is independent of positive aspects. The presence of uniquely positive and negative constructs is also supported by the two-factor theory (Herzberg, 1959). According to DFT, satisfaction and dissatisfaction are qualitatively different factors, and they are not opposite of each other. Past studies have applied the two-factor theory in varying contexts. For instance (Najmul Islam, 2014), showed that the factors that affect satisfaction are different from the factors that affect dissatisfaction; (b) both enablers and inhibitors can co-exist in consumers' perceptions, resulting in simultaneous product or service evaluations from both negative and positive viewpoints; (c) both inhibitors and enablers, may impact consumer behaviors independently, with negative factors, which are often more salient and more likely to be perceived by consumers, having a more pronounced effect than positive ones.

We have invoked the DFT for the current study because examining both enablers and inhibitors in conjunction is expected to provide a better understanding of user response toward m-wallets on account of four reasons: first, consumer's disposition toward recommending these wallets (PWOM) or spreading NWOM may depend more on inhibitors. As such, evaluating WOM behavior merely by examining the extent of the positive enablers while ignoring the negative aspects can obscure a clearer understanding of the actual influence of the enablers. Second, as contended by Cenfetelli and Schwarz (2011), the negative aspects tend to weigh more heavily in the minds of consumers than enablers. In other words, the hindering effect of inhibitors may exceed the facilitating effect of enablers. In fact, in both pre-adoption and post-adoption phases, the consumers make evaluations continually to make usage decisions in response to negative or positive experiences (Grimm et al., 2005). Due to this, examining enablers and inhibitors as distinct sets of antecedents

can provide a better perspective of why users will continue to use m-wallets or, conversely, why they may stop using them.

Third, Cenfetelli and Schwarz (2011) suggested that the negative aspects are perceived and evaluated at a great speed and may override positive attributes. Therefore, there is a need for quick attention and redressal of negative experiences compared with enablers, which may not require any targeted response. This negativity bias implies that individuals tend to value positive information less than negative information (Rozin and Royzman, 2001). Fourth, an examination of negative aspects may help uncover the novel outcomes that have not been examined in the past. For instance, prior studies revealed that distrust is different from trust and leads to a separate set of outcomes (e.g., McKnight et al., 2003), as did satisfaction and dissatisfaction (Najmul Islam, 2014). In the context of m-wallets, studying both enablers and inhibitors for their influence on both positive and negative WOM can be expected to bring under-explored or unexplored outcomes to the surface.

3. Research model and hypotheses

The model proposes a set of enablers and inhibitors as antecedents of PWOM and NWOM, which, in turn, are associated with continued use intentions toward m-wallets (Fig. 1). Although there is no precedent, we have drawn upon three streams of prior literature positing that: (a) PWOM and NWOM are driven by different motives (Alexandrov et al., 2013); (b) enablers and inhibitors are not opposite of each other (Cenfetelli, 2004; Cenfetelli and Schwarz, 2011); and (c) satisfaction and dissatisfaction are not opposite to each other (Herzberg, 1959), suggesting that PWOM and NWOM are distinct phenomena with a different set of factors influencing them. Drawing from the recent m-wallet and mobile payment literature, namely, Gao and Waechter (2017) and Talwar et al. (2020c), we identified perceived information quality, perceived ability, and perceived benefit as the enablers, and perceived cost, perceived risk, and perceived uncertainty as inhibitors. We suggest that the enablers (inhibitors) will be positively associated with PWOM (NWOM). The proposed model is controlled for the potential effect of

four variables, namely, age, gender, economic background, and educational qualification. Demographic control variables are considered in our study since past studies have acknowledged their potential confounding effect (e.g., Nam et al., 2020).

3.1. Enablers and WOM

We examine the positive association of three enablers (perceived information quality, perceived ability, and perceived benefit) with PWOM, anticipating that these variables will have no association with NWOM. Notably, very few studies have discussed the recommendation intentions (PWOM) of m-wallets users (e.g., Madan and Yadav, 2018). Though there are no prior studies to support our argument in the area of m-wallets, the literature on dichotomous variables provides sufficient rationale to propose the related hypotheses. As such, our hypotheses are based on the past findings suggesting that enablers are not the opposite of inhibitors Cenfetelli (2004); Cenfetelli and Schwarz (2011), satisfaction is not the opposite of dissatisfaction (Herzberg, 1959; Najmul Islam, 2014; Talwar et al., 2020c), and NWOM and PWOM are driven by different motives (Alexandrov et al., 2013). Our anticipation is also in line with the findings related to electronic WOM, wherein PWOM and NWOM were affected by different antecedents (Nam et al., 2020).

Perceived information quality is one dimension of quality in the Information Systems Success (ISS) model (DeLone and McLean, 2003). This variable captures different aspects of information, such as accurateness, intelligibility, relevance, newness, adequacy, and constancy of the available information (Alzahrani et al., 2019), and has been widely used as an antecedent of user satisfaction and use in the prior literature (DeLone and McLean, 2003; Wixom and Todd, 2005). Although the concept of information quality originated from user satisfaction and ISS scholarship, Wixom and Todd (2005) merged it with the IT adoption and use literature. Given that the perceived quality of information increases user satisfaction in an online context (DeLone and McLean, 2003), we argue that understanding this construct is applicable to m-wallets too. Scholars have contended that information quality is inherently situational (Zhang and Yuan, 2019); thus, we link information quality to
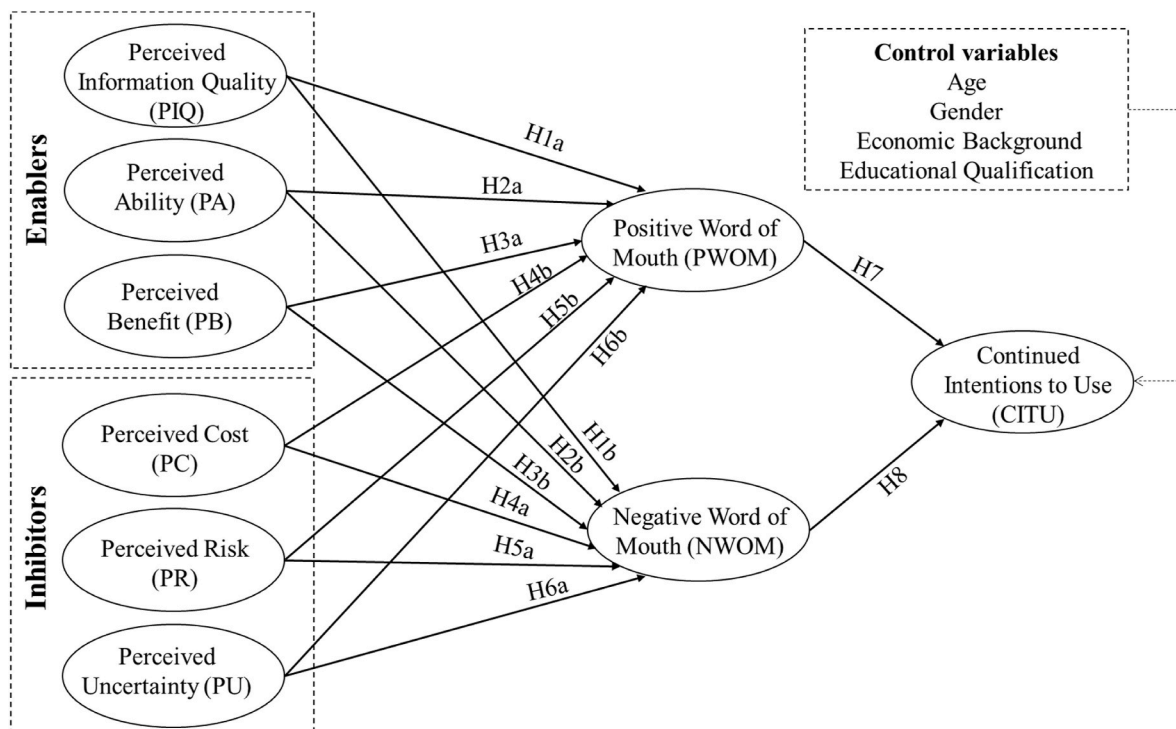

Fig. 1. Research model.

usage, suggesting that if consumers receive the information they need during their use of m-wallets, they will have an overall positive perception about its use. In turn, consumers are likely to share positive words about their experience. Seeing as the online spread of WOM has become increasingly common (Mahapatra and Mishra, 2017), we anticipate that m-wallet users will also be inclined to spread PWOM if they are satisfied with its information quality. This supposition is also grounded in the previously identified positive association between information quality-related factors and WOM, in particular (e.g., Cheung et al., 2008), and the authenticity of a brand and PWOM in general (Morhart et al., 2013). Therefore, we hypothesize that:

H1a. Perceived information quality will be positively associated with PWOM.

H1b. Perceived information quality will not be associated with NWOM.

Perceived ability refers to the perception that the service provider can provide excellent services (Talwar et al., 2020c). Perceived ability plays a vital role in formation ofinitial trust in m-wallets and, therefore, is a pre-requisite for adoption and continued use of a service (Talwar et al., 2020c). As a part of this initial trust, perceived ability impacts perceived usefulness and satisfaction as a result. Perhaps the concept of service quality employed in the ISS model (DeLone and McLean, 2003) shares some commonalities with perceived ability, and indeed, has been examined by past studies on mobile payments (e.g., Gao and Waechter, 2017). In the context of m-wallets, we thus argue that perceived ability is related to the rendering of excellent service and accurate transaction processing. According to the ISS model, service quality, together with information and system quality, is further expected to influence user satisfaction and use (DeLone and McLean, 2003). Since service quality results in a low deviation between consumers' expectations and actual service (Tam and Oliveira, 2016), perceived ability to deliver good service quality can positively affect users and enhance their PWOM intent accordingly. In this context, certain aspects, such as the ability of m-wallet service providers to maintain low complexity, also influence recommendation intentions positively (Kaur et al., 2020a), while the usage barrier in undertaking transactions reduces them (Kaur et al., 2020b). This aligns with past studies arguing that perceived quality and service quality drive PWOM in different contexts (Ahmadi, 2019). Based on this discussion, we believe that if users feel the service provider can provide good service, they will develop a positive perception, thus motivating them to share PWOM with others. Therefore, we postulate that:

H2a. Perceived ability will be positively associated with PWOM.

H2b. Perceived ability will not be associated with NWOM.

Perceived benefit represents consumers' belief about the positive outcomes of using a given product or service (Abramova and Böhme, 2016). It is one of the most important factors when users make usage decision and has often been conceptualized as perceived usefulness in the prior IT adoption and continuance literature (Najmul Islam et al., 2020). Accordingly, we contend that the perceived benefits associated with m-wallet usage are its speed and advantages. Perceived usefulness can lead users to perform their tasks more efficiently and is positively associated with user satisfaction (Bhattacherjee, 2001), adoption and use intentions (Najmul Islam et al., 2020), as well as continued use intentions (Bhattacherjee, 2001; Najmul Islam et al., 2017). In line with previous findings, Ryu (2018) revealed that perceived benefits were positively associated with continuation intentions toward FinTech. Consumers' perceived benefits were also found to positively influence their motivation to engage in PWOM in an online environment (Ryu and Park, 2020). In the case of m-wallets, Kaur et al. (2020a) found that benefits, such as compatibility and the relative advantage offered by m-wallets, positively influenced recommendation intentions (PWOM), while value barriers were found to have a negative association (Kaur

et al., 2020b). We thus expect that the higher the perceived benefit is, the higher the users' PWOM about m-wallets will be. This leads us to hypothesize that:

H3a. The perceived benefit will be positively associated with PWOM.

H3b. The perceived benefit will not be associated with NWOM.

3.2. Inhibitors and WOM

Similarly, we examine the positive association of three inhibitors, namely, perceived cost, perceived risk, and perceived uncertainty, with NWOM, by drawing upon the extended literature on consumer behavior, since, to our knowledge, no prior studies on m-wallets have discussed NWOM. In the form of negative reviews, NWOM has been found to influence consumers to a large extent (Sparks and Browning, 2011) and impacts firms' financial performance (Nam et al., 2020). Thus, examining the antecedents of NWOM toward m-wallets can be quite useful. In the case of enablers and NWOM, we examine our anticipation that the three inhibitors will have no association with PWOM. Though no prior studies have tested the absence of association of the antecedents of NWOM with PWOM, the postulates of DFT and two-factor theory provide an overarching base to argue that the factors that increase NWOM are not likely to decrease PWOM. As such, we argue that NWOM is not the opposite of PWOM, in keeping with prior literature (Cenfetelli, 2004; Cenfetelli and Schwarz, 2011; Herzberg, 1959; Najmul Islam, 2014). Furthermore, we propose that PWOM and NWOM have different motives (e.g., Alexandrov et al., 2013) and distinct effects on customer acquisition and retention (East et al., 2016, 2017). This supposition is supported by the findings of Nam et al. (2020), which revealed that the antecedent of writing positive eWOM was quite distinct from the drivers of negative eWOM.

Specifically, perceived cost refers to the monetary cost of the transaction using a mobile payment service (Chawla and Joshi, 2020). In consonance with Value Theory, which emphasizes the role of monetary cost in creating an overall value perception of a product or service (Mäntymäki et al., 2020), we expect perceived costs to impact consumers' decisions to use m-wallets. In particular, transaction costs are negatively associated with customer satisfaction, loyalty, and repurchase intentions in varied online contexts, such as the travel sector and customer-to-customer interaction (e.g., Yen et al., 2013). As consumers are known to choose transactions based on whether they perceive the associated costs are high or low (Williamson and Ghani, 2012), we contend that the perceived cost associated with m-wallets may include transaction fees and communication fees.

In the context of m-payments, scholars further argue that transaction costs are associated with initial trust, which represents the trust formed before adoption (Gao and Waechter, 2017). Accordingly, high perceived costs can lead to a sense of injustice, thereby inciting the spread of NWOM as consumers vent their feelings (Dalzotto et al., 2016). Similarly, perceived unfairness can also drive NWOM (Ferguson et al., 2014). Drawing upon these extended findings in varying contexts, we believe that the perceived cost of using m-wallets can be expected to incite a feeling of injustice and betrayal among consumers, which may cause them to spread NWOM. Therefore, we argue that if consumers perceive a high cost of using m-wallets that outweighs their benefit, they are likely to have an overall negative perception, prompting them to spread ill-words about them. Therefore, we propose:

H4a. The perceived cost will be positively associated with NWOM.

H4b. The perceived cost will not be associated with PWOM.

Risk refers to the possibility and negative implications of uncertain consequences faced by the consumer in the pre- and adoption stage (Wu et al., 2012). It represents a barrier to consumer decisions and includes uncertainty in choice as well as a financial burden (Heinze et al., 2017). Past studies on technology acceptance have argued that perceived risk

significantly contributes to usage intentions and the satisfaction derived from actual use (Natarajan et al., 2017). Perceived risk in a digital environment includes security risks, privacy risks, and financial risks (Talwar et al., 2020a). These risks are enhanced in the case of mobile-based payments, particularly security risks arising from the threat of limited identity protection (Gao and Waechter, 2017), loss of confidential information (Kaur et al., 2020b), and privacy (Bailey et al., 2017). Privacy risk is considered a key barrier to technology adoption and is a primary predictor of resistance to new services or technologies (Lin et al., 2014). In comparison, financial risk captures the monetary loss arising from hidden costs (Kushwaha and Shankar, 2013), which is a critical barrier to using various online payment methods (Talwar et al., 2020c). Accordingly, we argue that the perceived risk associated with using m-wallets mainly comprises the threat of fraud and the hacking of personal data.

Since perceived risk (e.g., security, privacy, and financial) represents the doubt that consumers may have about the outcome of their adoption decision (Arslan et al., 2013), it is likely that if the risk perception is high, consumers may develop dissonance and thus feel inclined to spread NWOM in a bid to help others. Although this association has not yet been examined in the current context, the extant literature argues that NWOM is spread as a venting and cognitive dissonance reduction tool for consumers (Velázquez et al., 2015). This finding provides us with an overarching basis to propose that the perceived risk associated with m-wallet use will increase consumers' NWOM behavior. Furthermore, online media has made it easy and convenient for consumers to air their frustration through NWOM (Pfeffer et al., 2014), leading us to hypothesize that:

H5a. The perceived risk will be positively associated with NWOM.

H5b. The perceived risk will not be associated with PWOM.

Perceived uncertainty refers to the monetary and psychological uncertainty created by privacy and financial risks (Hérault and Belvaux, 2014). Previous studies have reported that perceived uncertainty may lead to inertia or status quo, that is, consumers failing to adopt a new technological innovation (Talwar et al., 2020c). We contend that the perceived uncertainty associated with m-wallet usage pertains to fears about the safety of sharing information and the accessibility of their account by others. On account of the virtual nature of mobile payments and general lack of user control, consumers may perceive a great deal of uncertainty in using m-wallets, as they have already been shown to have with m-commerce (Lin et al., 2014). If users develop monetary and psychological uncertainty from the associated financial and privacy risks of using these wallets, they may feel that others should be informed and thereby stopped from using m-wallets. This negative perception among users (Bailey et al., 2017) will, in turn, prompt the spread of NWOM. Therefore, we hypothesize that:

H6a. Perceived uncertainty will be positively associated with NWOM.

H6b. Perceived uncertainty will not be associated with PWOM.

3.3. Word of mouth and continued intentions to use

The financial sustainability of any company depends on repeat business (Rather, 2018). Accordingly, we believe that continued usage intentions are important considerations for m-wallet service providers and that understanding how WOM impacts such intentions can be quite insightful for developing customer retention strategies. WOM is recognized as an important mode of sharing information about a product or service (Jeuring and Haartsen, 2017) that impacts consumer decision-making (East et al., 2017). For example, East et al. (2011) revealed that 71% of a brand's PWOM came from existing consumers, whereas 55% of its NWOM came from past consumers. PWOM can thus be equated with customer loyalty and retention (East et al., 2017) as it has a higher effect on purchase intentions (East et al., 2016). In contrast,

NWOM can be equated with discontinued use (Lee and Cranage, 2014; Turel, 2015). Both PWOM and NWOM are associated with the intentions of consumers, thereby affecting firms' financial performance as a result (Jung and Seock, 2017). While PWOM increases the repurchase/continued use intent, NWOM may hamper purchase/repurchase intentions (East et al., 2017). We anticipate that both PWOM and NWOM are likely to be associated with the continued intentions to use m-wallets. On the one hand, WOM can be expected to impact future use intentions positively, while on the other hand, NWOM will impact these intentions negatively. Consequently, we propose that:

H7. PWOM will be positively associated with continued intentions to use.

H8. NWOM will be negatively associated with continued intentions to use.

4. Data and methods

4.1. Data and instrument

We used a self-administered questionnaire to collect primary data and relevant demographic information from target respondents during November–December 2019. Since the sampling frame of m-wallet users/non-users in India was not available, we used a non-probability sampling for respondent recruitment, as discussed by scholars (e.g., Kaur et al., 2020c; Leong et al., 2020). Thus, we used convenience sampling to collect data since it is a well-accepted method (e.g., Rather and Hollebeek, 2019; Talwar et al., 2020b; Talwar et al., 2019). The target group comprised university students aged 19–25 years as they are known to embrace and handle novel technologies quickly and with ease . While distributing the questionnaire to potential respondents, we explained the purpose of the study and assured complete anonymity and confidentiality.

Since m-wallets are simple, fast, and convenient to use (Kaur et al., 2020a), the low usage rate is quite confounding. Due to this, we decided to collect data in their context. Data was collected in India on account of the recent developments which have brought m-payments into focus. From the Indian perspective, the demonetization of certain currency notes and the subsequent push to move the country toward a cashless transaction-based economy has led m-payment systems, such as m-wallets, to gain prominence (Gupta, 2019). Initially, the ratio of wallet/Unified Payments Interface (UPI) transactions was 96:4. However, with time, UPIs have increased in usage, rising to nearly 80% of remote transactions, such as person-to-person and bill payments, and a 50% share in offline payments to merchants (Gupta, 2019). In comparison, m-wallets have higher transactions only in the online payment to merchants category (Gupta, 2019). Given these statistics, it is exigent from the perspective of m-wallets such as Paytm, who have made a large capital expenditure in India, to understand why Indian consumers have not used m-wallets as much as anticipated based on the positive adoption behavior in 2016. Furthermore, only 6% of consumers in India use m-wallets, compared with 36% in China (Bepari, 2019), indicating the scope for expanding the use to potential users.

Overall, 1200 questionnaires were distributed, with 914 retained after removing outliers. The demographic details of the respondents are presented in Table 1.

All survey questions were close-ended, while user behavior was measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". We adapted pre-validated scales to measure all variables (see Table 2 for items and references) before obtaining feedback from three professors and researchers in the area of mobile payments. Following the process of Rather et al. (2019), the questionnaire was also pilot tested with 20 respondents representing the target population. We subsequently modified the questionnaire based on the ensuing feedback received from the pilot study as well as the experts. This was undertaken to ascertain the instrument's face and content validity. The

Table 1
Demographic details.

Demographic measures	Category	Percentage (Frequency)
Age	19 years	18.4 (168)
	20 years	14 (128)
	21 years	20.6 (188)
	22 years	15.6 (143)
	23 years	10.2 (93)
	24 years	7.2 (66)
	25 years	14 (128)
Gender[a]	Male	33.4 (305)
	Female	66.1 (604)
Economic background	Less than one million INR	11 (79)
	More than one million to two million	31 (221)
	More than two million to three million	45.5 (325)
	More than three million	12.5 (89)
Educational background	Undergraduate	71.7 (655)
	Graduate	25.1 (229)
	Doctoral level	3.3 (30)

*200 did not report their income.
[a] 5 respondents did not indicate their gender.

questionnaire was divided into four parts. In the first part, the screening question was evaluated to ensure that only qualified members of the target population (e.g., consumers who regularly used m-wallets in the past three months) would proceed. The second part inquired about the respondents' socio-demographic details, while the third comprised of items measuring enablers, inhibitors, and continued use intentions. Finally, the last part measured positive and negative WOM.

4.2. Method of data analysis

The data analysis was conducted using SPSS 26 and AMOS 26 using a two-stage approach of covariance-based structural equation modeling (CB-SEM), a popular data analysis method used by recent consumer behavior studies (e.g., Rather, 2019; Rather and Camilleri, 2019). We used CB-SEM as the proposed model was based on an established theoretical framework, making the hypotheses suitable for this method (Hew et al., 2019), and the data collected met the rather strict requirements in terms of large sample size, absence of outliers, multivariate assumptions of normality, and absence of multicollinearity, as discussed by recent studies (Talwar et al., 2019; Talwar et al., 2020b; Tandon et al., 2020). In contrast, PLS-SEM is lenient about sample size and multivariate assumptions. In addition, in line with the recommended process in the above-mentioned studies, we first examined the data for outliers, then tested for common method bias (CMB), followed by a test for normality and multicollinearity. Once the suitability of data for CB-SEM was ascertained, we conducted a confirmatory factor analysis to generate the validity, reliability, and goodness-of-fit parameters. Finally, we analyzed the structural path to test the proposed hypotheses while controlling for age, gender, economic background, and educational qualification. We treated all control variables as exogenous variables and regressed them on the outcome variables.

5. Results

5.1. Common method bias (CMB)

Since the data had no outliers, we proceeded with the test for CMB using Harman's single factor test. The test showed that the considered measurement items explained 22.51% of the variance when extracted as a single factor. The received value was less than 50%, indicating that the CMB is not a problem (Podsakoff et al., 2003).

Table 2
Factor loadings for the measurement and structural model.

Study Measures (Reference)	Measurement items	CFA	SEM
Perceived Cost (PC) Wu & Wang (2005)	PC1: I believe that the transaction fees for using m-wallets are high	.70	.70
	PC2: I believe that the communication fees for using m-wallets are high	.86	.86
	PC3: Overall, I believe that using m-wallets costs me a lot of money	.73	.74
Perceived Risk (PR) Featherman & Pavlou (2003)	PR1: m-wallets lead to a loss of privacy because my personal data could be used without my permission	.63	.63
	PR2: m-wallets expose me to the risk of internet hackers taking control of my personal data	.71	.71
	PR3: m-wallets can lead to potential fraud related to my bank account	.84	.84
	PR4: m-wallets can make my bank account vulnerable to financial risk	.82	.82
Perceived Uncertainty (PU) Talwar et al. (2020c)	PU1: I do not feel totally safe providing personal and private information over m-wallets	.63	.63
	PU2: I am worried about using m-wallets because other people may be able to access my account	.91	.90
	PU3: I would not feel secure sending sensitive information via m-wallets	.66	.66
Perceived Information Quality (PIQ) Talwar et al. (2020c)	PIQ1: m-wallets provide me with information relevant to my needs	.80	.79
	PIQ2: m-wallets provide me with sufficient information	.72	.73
Perceived Ability (PA) Talwar et al. (2020c)	PA1: I believe that m-wallets provide an excellent mobile payment service	.84	.83
	PA2: I believe that m-wallets process my transactions accurately and on time	.66	.67
Perceived Benefit (PB) Gao & Waechter (2017)	PB1: I think that m-wallets enable me to complete my payment transaction quickly	.68	.68
	PB2: Overall, I think that using an m-wallet is advantageous	.82	.82
Positive Word of Mouth (PWOM) (Fang et al., 2016; Liao et al., 2014)	PWOM1: I will recommend my friends and others to use m-wallets	.76	.73
	PWOM2: I will recommend m-wallets to someone who seeks my advice	.71	.69
Negative Word of Mouth (NWOM) Chen et al. (2018)	NWOM1: I would be very likely to warn my friends and relatives not to make payment for anything using m-wallets	.81	.81
	NWOM2: I would complain to my friends and relatives about issues with m-wallets	.85	.85
	NWOM3: I would definitely tell my friends and relatives not to make payment through m-wallets	.81	.81
Continued Intentions to Use (CITU) Talwar et al. (2020c)	CITU1: I intend to reuse m-wallets	.66	.66
	CITU2: I will always try to use m-wallets	.93	.93
	CITU3: I plan to use m-wallets frequently	.66	.66

PayTM used as sample m-wallet.

5.2. Data diagnosis

Before proceeding with the analysis, the collected data were rigorously checked to establish their fit. Respondents yielding a z-score value greater than the recommended threshold value ($n = 48$) were deleted, resulting in a final dataset of 914 respondents. The normalcy check for the data conducted through kurtosis and skewness revealed that they were well within the recommended limit of ± 1. The data were also checked for the possibility of multicollinearity. An examination of the independent variables reported that the variance inflation factor (VIF) values were less than 3, confirming that there were no multicollinearity issues with the considered dataset.

5.3. Validity and reliability analysis

The measurement model returned a good model fit ($\chi^2/df = 2.61$,

$CFI = 0.96$, $TLI = 0.95$, and $RMSEA = 0.04$) (Hair et al., 2016). The model estimated internal reliability together with the convergent and discriminant validity. The values of the composite reliability of the study constructs were greater than or equal to 0.70, providing support for internal reliability and convergent validity. Convergent validity was further supported as the values of the average variance explained (AVE) were greater than 0.50 together with items loadings of the measurement items is greater than the recommended threshold value of 0.50 (Hair et al., 2016) (Table 2). Discriminant validity was also supported since the AVE value of the study constructs was greater than the corresponding values of average shared variance (ASV) and maximum shared variance (MSV) (Fornell and Larcker, 1981). Furthermore, the correlation coefficients among study variables were less than the square root of the AVE (Table 3).

5.4. Hypotheses testing

The structural model also resulted in a good model fit ($\chi^2/df = 2.37$, $CFI = 0.96$, $TLI = 0.94$, and $RMSEA = 0.04$). The analysis reported that the proposed antecedents were able to explain 52.1% variance for PWOM, 58.2% for NWOM, and 25% for continued intentions to use (Fig. 2). Furthermore, results showed that PWOM was associated with enablers, that is, perceived information quality (H1a) ($\beta = 0.42$, $p < 0.001$), perceived ability (H2a) ($\beta = 0.29$, $p < 0.001$), and perceived benefit (H3a) ($\beta = 0.19$, $p < 0.05$). At the same time, NWOM was not associated with enablers, i.e., perceived information quality (H1b) ($\beta = 0.05$, $p > 0.05$), perceived ability (H2b) ($\beta = -0.04$, $p > 0.05$), and perceived benefit (H3b) ($\beta = -0.04$, $p > 0.05$). Thus, all hypotheses related to enablers were supported (H1a,b; H2a,b; H3a,b). In contrast, inhibitors were found to be positively associated with NWOM, i.e., perceived cost (H4a) ($\beta = 0.24$, $p < 0.001$), perceived risk (H5a) ($\beta = 0.44$, $p < 0.001$), and perceived uncertainty (H6a) ($\beta = 0.19$, $p < 0.001$). At the same time, PWOM was not associated with inhibitors, i.e., perceived cost (H4b) ($\beta = 0.06$, $p > 0.05$), perceived risk (H5b) ($\beta = -0.04$, $p > 0.05$), and perceived uncertainty (H6b) ($\beta = -0.07$, $p > 0.05$). Thus, all hypotheses related to inhibitors were supported (H4a,b; H5a,b; H6a,b) (Table 4). Finally, continued use intentions were associated with PWOM (H7) ($\beta = 0.50$, $p < 0.001$), but not with NWOM (H8) ($\beta = 0.05$, $p > 0.05$). As such, H7 was supported but H8 was not.

5.5. Control variables

The proposed research model controlled for age, gender, economic background, and educational background. In general, the control variables were not found to influence the dependent variables, i.e., PWOM, NWOM, and continued intentions to use m-wallets. However, gender did exert a significant controlling influence on NWOM ($\beta = -0.07$, $p < 0.05$).

6. Discussion

We examined the association of a distinct set of enablers and inhibitors with PWOM and NWOM, as well as the association of WOM valence with continued m-wallet use intentions.

Hypotheses H1a to H3b pertained to the association of three enablers with PWOM and NWOM. Results showed that perceived information quality had a positive association with PWOM (H1a) and no association with NWOM (H1b). This result is as anticipated by us based on the prior extended literature (Alexandrov et al., 2013; Cenfetelli and Schwarz, 2011; Cheung et al., 2008; Mahapatra and Mishra, 2017; Morhart et al., 2013; Najmul Islam, 2014; Talwar et al., 2020c; Nam et al., 2020), implying that if users perceive that m-wallets provide sufficient information relevant to their needs, they will perceive them to have good information quality. In turn, this will create positive feelings, motivating users to spread PWOM for m-wallets. In contrast, our results showed that the lack of adequate and relevant information required by users would not aggravate them to spread NWOM. The results thus confirm that low perceived information quality will not cause users of m-wallets to warn their social circles not to use these services.

H2a and H2b, proposing perceived ability's association with PWOM and no association with NWOM, were supported by the results, in consonance with the extant literature (Ahmadi, 2019; Alexandrov et al., 2013; Cenfetelli and Schwarz, 2011; Herzberg, 1959; Kaur et al., 2020a; 2020b; Talwar et al., 2020c; Tam and Oliveira, 2016). This finding indicates that if m-wallet users believe that these wallets provide excellent mobile payment services and process their transactions timely and accurately, they will show an inclination to recommend them to others. Conversely, issues with the timely and accurate processing of payments by m-wallets were unlikely to incite the users to complain to their friends and relatives or to suggest others should refrain from using these wallets. In other words, low perceptions about m-wallets' ability to provide good mobile payment services will not cause users to spread NWOM about them.

H3a, proposing the association of perceived benefit with PWOM, and H3b, suggesting no association of perceived benefit with NWOM, was supported by our findings. We had expected these associations based on previous studies (Alexandrov et al., 2013; Cenfetelli, 2004; Kaur et al., 2020a; 2020b; Najmul Islam, 2014; Ryu and Park, 2020; Nam et al., 2020), confirming that if users feel that m-wallets enable them to process their payment transactions quickly and think that using these wallets is quite advantageous to them overall, they will tend to recommend these wallets to others. In other words, users who perceive that m-wallets offer benefits and advantages to them will spread PWOM about them. Similarly, a perception about a lack of benefits will not cause users to indulge in NWOM against m-wallets, meaning that users, who feel that m-wallets are not that beneficial or advantageous, will not advise their friends and relatives to refrain from using these services. Even if the users perceive that these wallets do not enable them to

Table 3
Validity and reliability analysis.

	CR	AVE	MSV	ASV	CITU	PR	PU	NWOM	PC	PIQ	PWOM	PA	PB
CITU	0.80	0.58	0.19	0.08	**0.76**								
PR	0.84	0.57	0.50	0.15	0.04	**0.75**							
PU	0.78	0.55	0.35	0.12	0.11	0.59	**0.74**						
NWOM	0.86	0.68	0.50	0.15	0.05	0.71	0.57	**0.82**					
PC	0.81	0.59	0.35	0.11	0.06	0.58	0.45	0.59	**0.77**				
PIQ	0.73	0.58	0.29	0.11	0.43	0.13	0.21	0.13	0.08	**0.76**			
PWOM	0.70	0.54	0.29	0.13	0.42	0.02	0.06	0.02	0.05	0.53	**0.73**		
PA	0.72	0.57	0.53	0.14	0.35	−0.01	0.12	−0.03	0.02	0.38	0.54	**0.76**	
PB	0.72	0.57	0.53	0.13	0.33	0.04	0.08	−0.01	0.03	0.38	0.52	0.73	**0.76**

Note: Composite reliability = CR, Average variance extracted = AVE, Maximum shared variance = MSV, Average shared variance = ASV, Continued intentions to use = CITU, Perceived risk = PR, Perceived uncertainty = PU, Negative word of mouth = NWOM, Perceived cost = PC, Perceived information quality = PIQ, Positive word of mouth = PWOM, Perceived ability = PA, Perceived benefit.

Fig. 2. Results of hypotheses testing.

Table 4
Results of hypotheses testing.

Hypothesis	Path	β	p	Support
H1a	PIQ → PWOM	.42	<0.001	**Yes**
H1b	PIQ → NWOM	.05	>0.05	**Yes**
H2a	PA → PWOM	.29	<0.001	**Yes**
H2b	PA → NWOM	-.04	>0.05	**Yes**
H3a	PB → PWOM	.19	<0.05	**Yes**
H3b	PB → NWOM	-.04	>0.05	**Yes**
H4a	PC → NWOM	.24	<0.001	**Yes**
H4b	PC → PWOM	.06	>0.05	**Yes**
H5a	PR → NWOM	.44	<0.001	**Yes**
H5b	PR → PWOM	-.04	>0.05	**Yes**
H6a	PU → NWOM	.19	<0.001	**Yes**
H6b	PU → PWOM	-.06	>0.05	**Yes**
H7	PWOM → CITU	.50	<0.001	**Yes**
H8	NWOM → CITU	.04	>0.05	No

Note: Continued intentions to use = CITU, Perceived risk = PR, Perceived uncertainty = PU, Negative word of mouth = NWOM, Perceived cost = PC, Perceived information quality = PIQ, Positive word of mouth = PWOM, Perceived ability = PA, Perceived benefit.

process payments at a good speed, they will not vent about it to their social circle or suggest that others should not use them.

Hypotheses H4a to H6b proposed associations of three inhibitors with PWOM and NWOM. The outcome of the data analysis indicated support for all six hypotheses. H4a hypothesized an association of perceived cost with NWOM, and H4b hypothesized no association of perceived cost with PWOM. The findings of our study supported both, in line with the literature on mobile payments and other contexts (Alexandrov et al., 2013; Dalzotto et al., 2016; Ferguson et al., 2014; Gao and Waechter, 2017; Mäntymäki et al., 2020). Support for H4a implies that users who believe that the transaction and communication fees associated with m-wallets are high will tend to warn their friends and relatives not to use these wallets for making payments. At the same time, the general perception of users that m-wallets cost a lot of money (given the related fees) will prompt them to be critical about these wallets while interacting with their friends and relatives. However, support for H6b

signals that efforts to lower the costs or perceptions of them will not lead to PWOM. Even if users feel that the transaction and communication fees associated with m-wallets are reasonable, they will not spread PWOM about them as a result. Conversely, high perceived costs would not negatively influence their PWOM.

H5a, proposing an association of perceived risk with NWOM, and H5b, proposing no association of perceived risk with NWOM, was supported, in line with our supposition based on prior literature in multiple contexts (e.g., Alexandrov et al., 2013; Arslan et al., 2013; Nam et al., 2020; Talwar et al., 2020c). The support for H4a implies that perceived privacy and financial risks associated with m-wallets will cause users to be wary and lead them to warn their friends and relatives not to use m-wallets to make payments. Furthermore, fear associated with loss of privacy, hacking, and misuse of personal data, fraud, and monetary loss will cause users to criticize m-wallets in front of their social circle, thereby creating an NWOM against these wallets. However, by revealing support for H4b, our findings suggest that perceived risk issues, such as loss of privacy, hacking, and misuse of personal data, fraud, and monetary loss, will have no bearing on the PWOM that m-wallet users may provide. In other words, perceived privacy and financial risks associated with m-wallets will not erode the tendency of users to recommend them if they have other reasons to do so. Conversely, low-risk perceptions may not cause them to spread PWOM about m-wallets.

H6a, suggesting the association of perceived uncertainty with NWOM, is supported by the results, along with H6b, which proposed no association of perceived uncertainty with PWOM. We proposed these associations by making overarching yet plausible assumptions based on previous findings on uncertainty and word of mouth (Bailey et al., 2017; East et al., 2017; Herzberg, 1959; Talwar et al., 2020c). The finding in the case of H6a implies that m-wallet users who feel unsafe and insecure about sharing sensitive, personal, and private information via m-wallets will have a negative perception that will instigate them to share NWOM with their friends and relatives. In other words, uncertainty associated with m-wallets will cause users to worry about other people accessing their accounts, and this, along with issues associated with sharing information online, would cause them to warn their social connections to avoid using these services. Despite this effect of uncertainty leading to

NWOM, the findings indicated that the opposite situation does not exist, meaning that low uncertainty will not lead to high PWOM or vice-versa. We conclude this based on support for H6b, which suggested no association of perceived uncertainty with PWOM. Support for this hypothesis implies that feeling unsafe and insecure about sharing sensitive, personal, and private information via m-wallets will not negatively impact any PWOM that users provide for m-wallets. Put differently, low uncertainty associated with m-wallets will not motivate users to recommend them to others.

The results further supported H7, proposing that PWOM will be associated with continued use intentions, which is in consonance with prior findings (e.g., East et al., 2017). This finding indicates that users who tend to recommend m-wallets to others will also have positive intentions to reuse m-wallets frequently in the future. As individuals are driven by multiple motives to indulge in word of mouth, including sharing information about a product or service (Jeuring and Haartsen, 2017), self-enhancement, intention to help, and social bonding (Alexandrov et al., 2013), users motivated by a self-enhancement motive and an intention to help are hardly likely to recommend something to others that they personally do not find useful. In comparison, H8, proposing that NWOM will be negatively associated with continued intentions to use, was not supported by the results, suggesting that users' behavior of criticizing m-wallets in front of their friends and relatives and warning them not to use these wallets will have no bearing on their intentions to continue using them. This finding goes against prior findings (Turel, 2015; Lee and Cranage, 2014). We had expected a negative association between NWOM and frequent reuse intention in the future based on the assumption that if users have a negative perception about m-wallets, it should discourage them from using it. We speculate that no association between NWOM and continued intentions to use could be because alternative modes of payment have even more issues. Furthermore, the lack of association between NWOM and continued use intentions may be explained by findings that PWOM impacts purchase intentions more than NWOM (East et al., 2008). However, certain intervening influences may still need to be uncovered before any firm conclusion can be drawn regarding this hypothesis. Future research, utilizing a more diverse sample and different moderating and mediating variables are required to clarify this confounding outcome.

Since PWOM is an important way of sharing product information with a significant impact on consumer decisions (Jeuring and Haartsen, 2017; East et al., 2017), the findings related to enablers and inhibitors are very relevant for service providers. Furthermore, since NWOM is known to adversely affect a firm's customers (past, current, and potential), to the extent that it causes them to have a negative attitude or even leave the brand (e.g., Lee and Cranage, 2014), these findings have particular relevance for managerial decision-making. In addition, since these variables have not previously been explored together in the context of m-wallets, the findings lay the foundation for future theoretical advancement in this area.

7. Conclusion, implications, limitations, and future research areas

The evolution of m-payment methods alongside improved internet connectivity and increased smartphone use by consumers worldwide has created opportunities for players in the financial sector to expand their consumer base. One of the most exciting m-payment modes are m-wallets, which have attracted investment from various service providers. Policymakers have also created a regulatory environment to support m-wallets, despite some concerns raised about their privacy and security issues. Despite the investment they are attracting and policy support they are garnering, the adoption of m-wallets has remained low, accounting for less than 5% of the global point of sales transactions. There is thus a need for a better understanding of consumer behavior toward m-wallets in terms of what motivates them to either adopt or resist using them.

This question becomes particularly important regarding continued usage. We examined these varied aspects of consumer behavior toward m-wallets by using DFT to unite the enablers and inhibitors of m-wallet usage as antecedents of PWOM and NWOM and examine the influence of WOM valence on continued intentions to use m-wallets post-adoption. We proposed two RQs for this purpose and applied covariance-based structural equation modeling to analyze data collected from 964 m-wallet users in India to address them. To answer RQ1, which inquired about the association of enablers and inhibitors with the valence of WOM, we examined the association of perceived information quality, ability, and benefit as the enablers, and perceived cost, risk, and uncertainty as inhibitors, with PWOM and NWOM. As proposed, the findings revealed that enablers had a significant association with PWOM and no association with NWOM. In comparison, inhibitors had a significant association with PWOM and no association with NWOM. To address RQ2, querying about the association of WOM valence with continued usage, we examined the association of PWOM and NWOM with future use intent. The results revealed that only PWOM significantly influenced the continued intention to use. The study thus offers several key theoretical and practical contributions.

7.1. Theoretical contributions

This study makes four key theoretical contributions: first, the adoption of the dual perspective of enablers and inhibitors to examine the valence of users' WOM towards m-wallets adds an important dimension to the m-wallet consumer behavior literature. We have utilized the theoretical lens of DFT (Cenfetelli, 2004; Cenfetelli and Schwarz, 2011) to put forth the idea that a distinct set of enablers and inhibitors are not mere opposites of each other and thus play a role in motivating the WOM intentions of m-wallet users. In the past, scholars have focused either on enablers (e.g., Chatterjee and Bolar, 2019) or on inhibitors (Kaur et al., 2020b) as antecedents of consumer response to m-wallets, which has yielded a limited perspective on consumer behavior toward them. By examining the dual factor paradigm, our study contributes to the accumulated learnings in the area in the following ways: (a) providing a novel theoretical lens of DFT, which has not been applied before in m-wallets research, despite being a technology adoption theory; (b) extending DFT's theoretical value by empirically proving its applicability to a newer area; and (c) encouraging imminent scholars to incorporate a dichotomous perspective to better explain consumer response to m-wallets and extend it to other related areas within the umbrella of m-payments.

Second, our study contributes not only to the m-wallets literature but also to the consumer behavior literature by revealing that the valence of WOM (PWOM and NWOM) are not opposites of each other. The factors that contribute to enhancing PWOM thus do not decrease NWOM by their presence or increase it by their absence. Although prior studies have acknowledged that PWOM and NWOM are driven by different motives (Alexandrov et al., 2013) and have distinct impacts on consumer decisions (East et al., 2017), no studies have found empirical support that the two are not mere opposites. This theoretical contribution transcends theoretical advancement in the m-wallet research by proffering a completely new standpoint regarding the valence of WOM for consumer behavior literature as a whole. This contribution acquires great importance because online reviews (electronic WOM) are critical in the online environment (Mahapatra and Mishra, 2017), which is fast becoming a popular mode of buying required goods and services.

Third, the study addresses the deficiency of the m-wallet literature in terms of insights into the post-adoption behavior of m-wallets users. Most of the extant research on m-wallets has provided a pre-adoption perspective, discussing the antecedents of intentions to adopt/resist m-wallets through the theoretical lens of acceptance theories, such as DOI (Kaur et al., 2020a) or consumer resistance theories, such as Innovation resistance theory (Leong et al., 2020). In comparison, post-adoption continued usage intention has been under-explored. Our study reveals

the impact of WOM on continued usage intentions toward m-wallets, thereby providing new insights on consumer stickiness and loyalty toward these services. The findings of our study thus provide a platform to examine consumer stickiness in the context of m-wallets and offer actionable inputs for m-wallet service providers.

Fourth, the study adds to the growing literature on consumers' paradoxical behavior in varying contexts (e.g., Talwar et al., 2020a) by revealing that NWOM does not affect continued usage intent. This is a counterintuitive outcome since, from a logical perspective, users who would discourage others from using m-wallets would first stop using the service themselves. This is also in opposition to past research that has equated NWOM with discontinued use (Turel, 2015; Lee and Cranage, 2014). Therefore, the result enriches the insights on consumer behavior toward m-wallets by possibly revealing a status quo bias (Samuelson and Zeckhauser, 1988), which indicates that dissatisfied consumers may continue to use an existing product or service due to force of habit and resistance to change. Such behavior, called inertia, has been explained by the Status quo bias theory (Samuelson and Zeckhauser, 1988) and found to exist in retail investors by recent studies (e.g., Seth et al., 2020).

7.2. Practical contribution

This study reveals three implications for m-wallet service providers trying to increase the adoption and continued usage of their services: first, the study confirms the enablers (perceived information quality, ability, and benefit) that facilitate the loyalty or continued usage intention of existing users, which the present study captures by revealing the positive association of enablers with PWOM, which, in turn, is positively associated with continuation intention. The study thus assists service providers by identifying actionable ways of motivating consumer loyalty and stickiness, and engaging with them. As customer engagement, loyalty and stickiness are paramount (Islam et al., 2019a, 2019b; Leckie et al., 2018; Rather et al., 2018) for a continued competitive advantage, as is new customer acquisition, this is a very significant contribution.

Second, the study assists m-wallet service providers by proving that service providers can motivate users to spread PWOM about them by ensuring that they make relevant and sufficient information available to users that they need for undertaking transactions through m-wallets. Such adequacy of information should be coupled with reinforcement of the fact that the service provider can render excellent service by processing all transactions accurately and quickly. Thus, our findings pinpoint the factors that service providers can leverage or improve to garner PWOM about their users. Encouraging PWOM is a very desirable outcome from the perspective of the acquisition of new users since it impacts the receiver's intentions to adopt the given product or service (East et al., 2017).

Third, although the findings did not reveal any association between NWOM and continued usage intention, the positive association identified between inhibitors and NWOM has important implications for service providers. The inhibitors (perceived cost, risk, and uncertainty) cause existing users to criticize m-wallets and warn their friends and relatives to avoid using these services; consequently, m-wallet providers would want to discourage these users from sharing NWOM. They can thus attempt to demotivate existing users from disseminating NWOM by focusing on controlling the overall cost of m-wallet transactions. In this regard, the service providers can lobby with regulators to reduce taxes or other transaction-related charges to keep the cost structure as low as possible. They can also rationalize their promotional budget by undertaking a cost-benefit analysis of the gains from advertising versus the adverse effect of NWOM when the promotional costs are passed to the existing users. Furthermore, since our results show that the fear of privacy loss and the threat of security to their bank accounts can cause users to disparage m-wallet usage and spread NWOM against them, the service providers can take steps to provide advanced security and safety solutions (Hayashi and Bradford, 2014) to discourage NWOM.

7.3. Limitations and future research areas

The study has two key limitations: first, we used convenience sampling of m-wallet users to collect self-report data. Though popularly used by prior studies (e.g., Singh and Sinha, 2020), this sampling method imposes limits on the generalizability of the study's findings to m-wallet users in different geographies and areas. However, our study is exploratory in nature, being the first to propose the antecedents and outcome of the valence of WOM in the context of m-wallets. Future researchers can consolidate our findings by testing our model through a variety of research designs, such as longitudinal studies and using random sampling methods. Second, our study has explored a robust yet limited set of enablers and inhibitors. There can be various other factors that act as enablers or inhibitors of m-wallet usage and the subsequent PWOM or NWOM. Due to this, the insights offered by the study may be limited. However, the proposed model provides a strong platform for future researchers to expand the list of considered enablers and inhibitors, such as trust, regulatory requirements, and asset specificity. Furthermore, researchers can also explore the enablers and inhibitors of WOM valence by utilizing status quo bias (Samuelson and Zeckhauser, 1988) to illuminate consumers' continued use intentions.

Others ways our study and proposed model can be expanded are: (a) conducting experiments or qualitative studies to examine the effect of PWOM and NWOM on the intentions of non-users of m-wallets; (b) examining the mediating role of the valence of WOM on the association of enablers and inhibitors with continued usage intentions; (c) identifying and testing the influence of variables that can moderate the association of enablers and inhibitors with the valence of WOM or the association of the valences with continued intentions to use; and (d) testing our model by collecting data during and after the COVID-19 pandemic to map how this unprecedented health crisis has altered consumers' response to m-wallets in an accelerated shift toward cashless transactions.

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