THE LINK BETWEEN CAUSAL ATTRIBUTION AND RECOVERY SATISFACTION IN MOBILE MONEY TRANSACTION FAILURES: THE MEDIATING ROLE OF NEGATIVE EMOTIONS

VEZA IZMEĐU KAUZALNOG ATRIBUIRANJA NEUSPJELIH MOBILNIH NOVČANIH TRANSAKCIJA I ZADOVOLJSTVA OPORAVKOM: POSREDNIČKA ULOGA NEGATIVNIH EMOCIJA

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Abstract

Purpose – Despite the remarkable growth and importance of mobile money technology, there are reported concerns about transaction failures. This research study evaluates customer perception of and response to transaction failures and recovery in an emerging market context. Specifically, the study proposes a model to analyze the direct effect of causal attribution of mobile money transaction failure, employing dimensions of controllability and stability on recovery satisfaction as well as indirect effects through negative emotions.

Design/methodology/approach – Data were collected through an online survey using a structured questionnaire on 344 mobile money subscribers who experienced transaction failures in the past six months.

Sažetak

Svrha – Unatoč izuzetnom rastu i važnosti tehnologije mobilnog novca, javlja se zabrinutost zbog neuspjelih transakcija. Ova istraživačka studija ocjenjuje percepcije korisnika o neuspjelim transakcijama, odgovorima na njih kao i oporavku u kontekstu tržišta u razvoju. Točnije, predlaže se model za analizu izravnog učinka kauzalnog atribuiranja neuspjeha transakcija mobilnog novca korištenjem dimenzija upravljivosti i stabilnosti zadovoljstva oporavkom kao i neizravnih učinaka negativnih emocija.

Metodološki pristup – Podaci su prikupljeni putem online, strukturiranog anketnog upitnika od 344 korisnika (pretplatnika) usluge mobilnog novca koji su u posljednjih šest mjeseci doživjeli neuspjehe u transakcijama.

Findings and implications – The hypotheses of this research study were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 3 software. The study found that both the causal attribution dimensions of controllability and stability significantly influenced negative emotions and recovery satisfaction. Besides, negative emotions significantly influenced recovery satisfaction. The results also revealed that negative emotions mediate the relationship between causal attribution and recovery satisfaction. Therefore, service providers are advised to reduce preventable and stable transaction failures.

Limitation – Since there was no database of mobile money subscribers who experienced transaction failures, a public online survey with screening questions was employed. Respondents filled in the questionnaire based on voluntary response, so care should be employed when generalizing.

Originality – This is one of the few studies on service failure in an emerging market. It is the first time that attribution theory has been applied as the main theory to explain the perception of and response to transaction failures in a mobile money setting.

Keywords – stability, controllability, negative emotions, recovery satisfaction, mobile money, emerging economy

Rezultati i implikacije – Hipoteze istraživanja testirane su primjenom modeliranja strukturnih jednadžbi metodom parcijalnih najmanjih kvadrata (PLS-SEM), korištenjem SmartPLS 3 softvera. Istraživanje je otkrilo da obje dimenzije kauzalne atribucije, upravljivost i stabilnost, značajno utječu na negativne emocije i zadovoljstvo oporavkom. Osim toga, negativne su emocije značajno utjecale na zadovoljstvo oporavkom. Otkriveno je i da negativne emocije posreduju u odnosu između kauzalnog atribuiranja i zadovoljstva oporavkom. Pružateljima usluga savjetuje se smanjivanje sprječivih i ustaljenih propusta u transakcijama.

Ograničenja – Budući da nije postojala baza podataka o pretplatnicima usluge mobilnoga novca koji su doživjeli neuspjehe u transakcijama, provedeno je javno internetsko istraživanje s pitanjima za provjeru. Ispitanici su ispunjavali upitnik na temelju dobrovoljnog sudjelovanja pa treba biti oprezan pri generaliziranju.

Doprinos – Ovo je jedno od rijetkih istraživanja o neuspjehu usluge na tržištima u razvoju. Prvi je puta korištena teorija atribuiranja kao glavna teorija za objašnjavanje percepcije i odgovora na neuspjeh transakcija u kontekstu mobilnog novca.

Ključne riječi – stabilnost, upravljivost, negativne emocije, zadovoljstvo oporavkom, mobilni novac, gospodarstvo u razvoju

1. INTRODUCTION

Mobile money (MM) is a mobile phone technology that has brought substantial changes to the financial service sector. With more than two billion people who are financially excluded (Demirguc-Kunt, Klapper & Van Oudheusden, 2015), MM has provided the majority of poor people with accessible and affordable financial services, thus reducing poverty (Pansera & Owen, 2018). Before MM, this was a challenge as poor people live mostly in rural areas where traditional banks have no or few branches (Global System Mobile Association - GSMA, 2018). Despite the growth and importance of MM, there are reported concerns about service failures when conducting transactions (Balasubramanian & Drake, 2015) accessible, and reliable ways to store and transfer money than are currently available. The development of this ecosystem requires a network of agents to conduct cash-for-electronic value transactions and vice versa. This paper estimates the effect of competition and service quality on mobile money demand. In this setting, service quality consists of service reliability (lower stockout and system downtime rates).

Service failure causes financial losses (for instance, sending money to a wrong MM account) and psychological problems, prompting negative emotions in customers (Vakeel, Sivakumar, Jayasimha & Dey, 2018). Generally, it happens when the actual service performance falls below expected performance (Lee & Cranage, 2018). This poses a threat to customer satisfaction as it lowers the perception of service quality (Kim, Kim & Kim, 2009). An unsatisfied customer is unlikely to continue using the service (Vakeel et al., 2018). This negative impact is reflected in the profit and sustainability of the company (Nikbin, Marimuthu, Hyun & Ismail, 2014). The good thing is that service providers such as mobile network operators have the second chance to win back unsatisfied customers following service failures through service recovery (Matikiti, Roberts-Lombard & Mpinganjira, 2019). Satisfaction after recovery is only achieved when service provider performance exceeds the expectations of complaining customers (Maxham & Netemeyer 2002; Nikbin, Ismail, Marimuthu & Salarzehi, 2012). However, when mishandled, it compounds further customer dissatisfaction (Koc, 2019), termed as "double deviation effect" (Bitner, Booms & Tetreault, 1990). The importance of this topic has attracted attention among researchers trying to understand the customer perception of service failure and how it influences recovery satisfaction.

Based on attribution theory (Weiner, 1985), service failure has different effects on customers; these effects vary depending on how each customer perceives the attribution (Nikbin et al., 2012). A literature review shows relatively few studies that have investigated how service failures influence recovery satisfaction in different service settings (see, for example, Dobrucali & Oflac, 2019; Lee & Cranage, 2018; Matikiti et al., 2019). To the best of our knowledge, no research applying attribution theory has examined the link between service failure attribution and recovery satisfaction in the MM context. Moreover, findings from previous studies have been inconsistent, limiting generalization in other contexts such as MM. Differences in the nature of constructs and context studied explain the variation of failure attribution effects on recovery satisfaction (Van Vaerenbergh, Orsingher, Vermeir & Larivie, 2014). In addition, contrary to expectations, very few studies on this topic have been conducted in an emerging market (Matikiti et al., 2019). Little is known about MM transaction failures generally, and it is not clear whether failure attribution influences recovery satisfaction. Therefore, the current study seeks to fill these knowledge gaps.

Applying the attribution theory (Weiner, 1985), this paper examines the relationship between attribution dimensions and recovery satisfaction. These dimensions are stability (whether service failure is permanent or temporary) and controllability (whether a service provider could have prevented the service failure). Besides, this study investigates whether negative emo-

tion such as anger mediates the relationship between attribution dimensions and recovery satisfaction.

The current research study makes contributions to theory and practice. In theory, this study confirms the applicability of attribution theory (Weiner, 1985) to explain the relationship between service failure attribution processes and recovery satisfaction in an MM setting. Also, it is a single study applying attribution theory as the main theory to explain transaction failures in an MM setting. The study also validates the partial mediation role of negative emotions in the link between transaction failure attribution and recovery satisfaction. In practice, this study offers suggestions to MM service providers on how to address transaction failures. Moreover, this paper is one of the efforts to support financial inclusion initiatives currently underway in Tanzania and other emerging markets. This is done bz providing awareness on customer reactions to MM transaction failures and, finally, recommending ways for service providers to address them.

The remaining part of the paper is structured as follows: the next section discusses the literature review and conceptual framework. It is followed by the methodology, discussion, and findings. Finally, the conclusion, limitations, and recommendations for further studies are presented.

2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1. Mobile money

MM technology has been an important innovation in the financial sector since it came into existence about two decades ago. MM provides access to financial services through a mobile phone and allows services such as savings, transfer, and payments. GSMA (2018) reports that there are more than half a billion MM accounts in the world; out of these, the Sub-Saharan region in Africa accounts for 277 million. In that region, the uptake of MM is high thanks to a mobile phone penetration of 76% (Demirguc-Kunt & Klapper, 2012). With two billion people who are financially excluded from mainstream financial institutions (Demirguc-Kunt et al., 2015), MM has been seen as the best alternative available. It is an inclusive innovation in the sense that it reaches the majority of poor people living in rural areas, where traditional banks have no or few branches (Pansera & Owen, 2018). The uptake of MM is high because it is believed to have the potential to reduce extreme poverty, especially in rural areas. The use of MM enhances money safety, provides convenience, and reduces the travelling time to reach banks that are too far, especially in rural areas, thus saving transaction costs (Jack & Suri, 2014). Despite the benefits of using MM, there are reported concerns about service failures when conducting transactions. These are related to system issues (for instance, temporarily unavailable service, delay in reversing wrong transactions) and MM agent-related challenges (for instance, insufficiency or lack of cash and e-float) (Balasubramanian & Drake, 2015) accessible, and reliable ways to store and transfer money than are currently available. The development of this ecosystem requires a network of agents to conduct cash-for-electronic value transactions and vice versa. This paper estimates the effect of competition and service quality on mobile money demand. In this setting, service quality consists of service reliability (lower stockout and system downtime rates). All these service failures signal a potential threat to fully achieving the benefits of MM use.

2.1.1. Service failure

Despite its common usage, the term "service failure" is used in different disciplines to mean different things. In service failure and recovery literature, various definitions of service failure may be found. Service failure is the service performance that has failed to match the customer expectation (Lee & Cranage, 2018). This definition is close to that of Koc (2017), who defined it as any type of error, a mistake in the service delivery causing hindrance in customer satis-

faction. In this paper, the term "service failure" and "transaction failure" are used interchangeably to mean any unpleasant experience when using MM services to process transactions. The consequences of service failure are serious when mishandled as they lower perception of service quality (Köcher & Paluch, 2019; Kim et al., 2009), cause customer dissatisfaction (Koc, 2019) which, in turn, affects company revenues and disrupts its sustainability as a result (Nikbin et al., 2014). In response, service providers need to have a robust service recovery in place to win back dissatisfied customers (Matikiti et al., 2019) as the way to restore the perception of justice (Hwang, Gao & Mattila, 2020). This makes service recovery the top priority of businesses (Kranzbühler, Kleijnen & Verlegh, 2019). Service recovery is challenging because different customers have different expectations from the service provider. Wolter, Bacile, Smith, and Giebelhausen (2019) suggest that, whereas one customer may rate a particular service failure as minor, another may perceive the same as a major problem. Therefore, the effects of service failure on recovery satisfaction appear to change depending on the attribution.

2.1.2. Service failure attribution

Based on attribution theory (Weiner, 1985), which is concerned with ways people explain why certain events happen and how they interpret it, people tend to attribute experiences to a cause or source. This reasoning draws causal inferences which determine their subsequent reactions. Attribution requires an inducement, such as failed transactions experience, to activate. Grounded in self-serving bias concept (Wolosin, Sherman & Till, 1973), people are more used to searching attributions of blame when experiencing dissatisfactory events than in success events. This suggests that customers are more likely to make casual attribution of blame in negative outcomes, such as transaction failure, because it triggers their psychological discomfort (Laufer, 2002). In literature, attribution theory (Weiner, 1985) has been dominantly applied to explain SF attribution and subsequent customer reactions. In the current study, the focus is in two dimensions of attribution theory: causal stability and causal controllability.

Stability attribution refers to the perception of whether service failure is temporary or permanent (del Río-Lanza, Vazquez-Casielles & Diaz-Martin, 2009), whereas the attribution of controllability refers to the customer perception of whether the service provider can prevent service failure from happening (Weiner, 2000). These dimensions are relevant as the scope of the study is on service failures perceived to originate from the service provider.

2.1.3. Negative emotions

Emotions are mental states developing when an individual experiences a specific event (McColl-Kennedy & Smith, 2006). This study focuses on negative emotions which are triggered by transaction failures. Negative emotions are mostly activated when another party contributes to an unpleasant outcome (Hsu, Wang, Chih & Lin, 2019). Customers expect a service provided to match their expectations, but when they are not met, service failure is likely to cause negative emotions such as anger, regret, and frustration (Vakeel et al., 2018).

2.1.4. Recovery satisfaction

Service failure is a negative difference between expected service and actual service performance (Dobrucali & Oflac, 2020). This puts the relationship between customers and the service provider at stake. Service recovery becomes the second chance to win back unsatisfied customers following service failure (Matikiti et al., 2019). However, when service recovery is mishandled, it exacerbates further negative evaluations (Dobrucali & Oflac, 2019). Kim and others (2009) refer to "recovery satisfaction" as a positive mental status resulting from service failure being successfully recovered. It occurs when the service provider performance matches or goes beyond customer expectations in handling their service failure complaint (Maxham & Netemeyer, 2002).

Below are the arguments related to the relationships between constructs in the conceptual model grounded in attribution theory (Weiner, 1985). A direct relationship is discussed first and indirect relationship or mediation follows.

2.2. Direct effect: Relationships between causal attribution dimensions and recovery satisfaction

In the literature, service failure attribution has been associated with recovery satisfaction. More specifically, both stability and controllability attributions influence recovery satisfaction. In the stability attribution, the meta-analysis study consists of 64 academic works done in different service settings; Van Vaerenbergh and others (2014) argue that, when the service failure occurs more frequently, it affects the evaluation of recovery efforts. Therefore, the repetitive nature of service failure is likely to make customers feel more dissatisfied with the service (Akhtar, Ahmad, Siddiqi & Akhtar, 2019). The same was found in the works of Nikbin and others (2012) and Matikiti and others (2019) in Malaysian and South African airlines settings, respectively. This signals a negative relationship between the levels of stability attribution and recovery satisfaction. However, it appears that this relationship may not always be such in a different service setting. For example, a study by Smith and Bolton (1998) found no effect on the relationship between stability and satisfaction in a hotel setting.

Similarly, there also appears to be a link between controllability attribution and recovery satisfaction. Customer perception that the service provider could have done differently to prevent service failure from occurring makes them feel more dissatisfied (Matikiti et al., 2019; Weitzl, 2019), unlike when customers feel that they have partial control or when the level of controllability is unknown to them (Nikbin et al., 2012). This partly explains why controllability attribution is regarded an important factor that customers rely on to judge the service failure experience (Van Vaerenbergh et al., 2014; Akhtar et al., 2019). Of all these empirical findings, little is known about whether stability and controllability attributions influence recovery satisfaction in the mobile money transaction failure context. Against this backdrop, the following hypotheses are proposed:

H1: Controllable attribution has a negative relationship with recovery satisfaction in the episodes of mobile money transaction failures.

H2: Stable attribution has a negative relationship with recovery satisfaction in the episodes of mobile money transaction failures.

2.3. Indirect effect: Mediating role of negative emotions

Emotion is an important factor in explaining customer behaviour (Hsu et al., 2019). As service failure is a negative experience, customers are more likely to develop negative emotions. In the service failure and recovery literature, there appears to be a link between causal attribution dimensions and recovery satisfaction through negative emotions. In other words, negative emotions appear to mediate this relationship. The mediator is the third variable; it involves the sequence of at least two direct effects, each of which involves an intervening variable (Hair Jr., Hult, Ringle & Sarstedt, 2016). In the current study, the mediator is a negative emotion where causal attribution on negative emotion and negative emotion on recovery satisfaction are two direct effects explaining the mediation process. The following is a review of direct effects which forms the basis for understanding the mediation effect.

2.3.1. Link between causal attributions and emotions

Previous studies have established that service failure causal attribution dimensions of controllability and stability relate to negative emotions such as anger (Nikbin & Hyun, 2017; Van Vaerenbergh et al., 2014; Hsu et al., 2019; Kranzbühler et al., 2019; Vakeel et al., 2018) pre-recovery emotions, and negative behavioural intentions after

a service failure and proposes a model for analysing direct effects of airline travellers' casual attribution of stability (failure frequency). When service failure is perceived to be controllable, it elicits more negative emotions because customers feel that the service provider does not care or is incompetent enough to perform the task as expected (Van Vaerenbergh et al., 2014). Similarly, when service failure is perceived to be stable, it causes negative emotions in customers. This is so because a more stable service failure signals incompetence of the service provider, which in turn elicits fear of encountering the same service failure experience in future (Weiner, 2000). In such scenarios, customers' attribution of blame on the service provider is greater and they become less forgiving than in situations with a lower degree of controllability and stability. In the context of MM transaction failure, it is hypothesized that:

H3: Controllable causal attribution is positively associated with the levels of negative emotions.

H4: Stable causal attributions are positively related to the levels of negative emotions.

2.3.2. Causal relationship between negative emotions and recovery satisfaction

The authors of some previous studies hold that negative emotion is an important antecedent to satisfaction with recovery efforts (Vakeel et al., 2018; Matikiti et al., 2019). The negative emotions such as anger and disappointment are signs of dissatisfaction (Taylor, 1994). These emotions tend to create negative bias in customer recovery evaluations (Smith & Bolton, 2012). An assessment of recovery evaluation appears to be more negative when strong negative emotions are carried over from the service failure experience to the evaluation of service recovery satisfaction. This appears to make negative emotion in an episode of service failure critical to the recovery efforts evaluation. However, the assessment might improve to less negative in mild levels of negative emotions. Therefore, it is hypothesized that:

H5: Negative emotions are negatively related to recovery satisfaction in the episodes of mobile money transaction failures.

2.3.3. Mediation effect

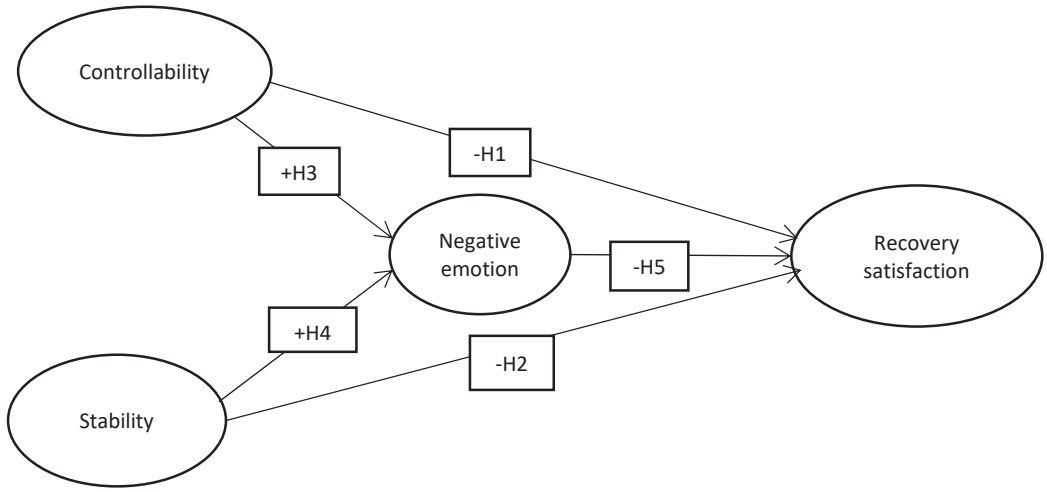
As previously stated, negative emotion intervenes in two direct relationships discussed in 2.3.1 and 2.3.2. Therefore, in the MM transaction failure context, it is argued that a change in stability or controllability causes a change in negative emotion which, in turn, results in a change in the recovery satisfaction. In this regard, it is argued that in MM transaction failure context, customers are likely to express more negative emotions when they perceive more stable and controllable causes, and such negative emotions influence recovery satisfaction negatively. So it is proposed that negative emotions mediate the relationship between causal attributions (controllability and stability) and recovery satisfaction. Therefore, we hypothesize that:

H6: Negative emotions mediate the effect of controllability attribution on recovery satisfaction.

H7: Negative emotions mediate the effect of stability attribution on recovery satisfaction.

The conceptual framework of this research study is grounded in attribution theory (Weiner, 1985), as shown in Figure 1. It illustrates the summary of both direct and indirect cause-effect relationships of constructs developed in hypotheses formulation, together with the nature of such relationships.

FIGURE 1: Direct and indirect effects linking stability attribution, controllability attribution, negative emotions, and recovery satisfaction



Source: Adapted from attribution theory (Weiner, 1985)

3. RESEARCH METHODOLOGY

3.1. Research design and sampling

The current study used a survey design to investigate the nature of relationships between the constructs. The target population for the study consisted of mobile money service subscribers in Tanzania who had once experienced transaction failures. The study aimed at collecting data from customers who had actually experienced transaction failures before, unlike some similar studies which used scenario-based situations when investigating service failures. Even though written scenario-based method provides the benefit of operationalizing difficult manipulation (Lee & Cranage, 2018) and therefore saves time and money, these scenarios are challenged by the fact that they lack the richness of the actual service failure encounter (Agapi, 2017).

The questionnaires were conveniently pre-tested to confirm the most common forms of transaction failures in the mobile money industry and relevant research questions on transaction failures among mobile money users, together with their clarity in terms of language. The survey was first prepared in English and was then translated into Swahili. The study used a structured online questionnaire with screening questions. Structured questionnaires were distributed using the Google forms survey tool. Online Google forms were purposely chosen as there is no list or database of mobile money subscribers with transaction failure experiences. Screening questions were used to determine whether the respondents encountered any transaction failure with their mobile money service provider in the past six months. Online Google forms helped to send the link to the intended study sample of the survey in online forums, social networking sites, and to e-mail contacts (Raju & Harinarayana, 2016). This enabled reaching a wider audience among potential participants.

A total of 422 responses were collected between June and September 2019. Screening questions were used to sort out subjects who do not fall into study objectives. MM subscribers who did not meet the criteria for inclusion into the study were 74, so they were all dropped from further

analysis. In this case, this left 348 questionnaires for analysis. After collecting data using the questionnaires, there was a need to address missing data, suspicious response patterns, outliers, and data distribution (Hair et al., 2016). At this stage, we checked for missing values and suspicious response patterns. Using the guidelines provided by Hair, Black, Babin, Anderson and Tatham (2010) for treating missing data and suspicious response, 4 other questionnaires were dropped. Finally, the total number of questionnaires used for data analysis was 344.

3.2. Measurement of variables

A structured questionnaire was divided into three (3) major parts. Part one included screening questions. Part two focused on the social and demographic data on respondents. It included information such as gender, income, age, education, and occupation. The last part solicited information regarding the transaction failure experiences. That information was related to controllability, stability, negative emotions, and recovery satisfaction. In this study, all constructs were measured by the number of observed items, using the seven-point Likert scale. The scale ranged from one (1) "strongly agree" to seven (7) "strongly disagree". Generally, to ensure the content validity of the measuring instrument, the study adopted items from different prior research in a similar field of study. The items were then adapted to reflect the MM transaction failure context. More specifically, the items of causal attributions controllability and stability were adopted from Huang, Lin and Wen (2010) and Mattila and Wirtz (2004). Negative emotion items were obtained from Machleit and Mantel (2001) a field study, includes two samples of shoppers (student and non-student, and recovery satisfaction items were adopted from the works of Maxham and Netemeyer (2002) and Wirtz and Mattila (2004).

4. FINDINGS

4.1. Overview

PLS-SEM using SmartPLS3 software (Ringle, Wende & Becker, 2015) was employed to estimate the theoretical model. The evaluation of PLS-SEM results requires a two-steps approach. The first step is an examination of the measurement model. Once the measurement model meets the established criteria, it allows the assessment of the structural model (Sarstedt & Mooi, 2014; Hair et al., 2016). The respondents' profile, measurement model, and structural model findings are presented in Table 1, Table 2 and Table 3, respectively.

4.2. Empirical findings

4.2.1. Respondents' profile

Table 1 provides the respondents' profile in terms of gender, age, education, and income. Out of 344 questionnaires retained for this study, the male respondent group is slightly larger than the female group. In terms of income levels, the majority of respondents were in the middle level of income, with few were belonging to both extremes. Regarding the education level, the majority had at least a secondary education. Finally, with regard to the age distribution, the majority belonged to the group of 25-34-year-olds and very few were older than 45.

TABLE 1: Profile of respondents

Variable	Frequency	Percentage
Age (years)		
15-24	82	23.8
25-34	170	49.4
35-44	69	20.1
above 45	23	6.7
Education		
primary	45	13.1
secondary	89	25.9
college	66	19.2
graduate	144	41.9
Income (in TZS)		
<200,000	46	13.4
200,000-600,000	155	45.1
600,000-1,000,000	99	28.8
>1.000,000	44	12.8
Gender		
male	186	54.1
female	158	45.9

4.2.2. Measurement model

The reliability and validity of the measurement model were assessed using psychometric tests. Three tests were performed for indicator reliability: Cronbach's alpha reliability and composite reliability. Indicator reliability represents how much of the variation in an item is explained by the construct (Hair et al., 2010). Results show all of the indicator reliability of reflective construct stability, controllability, negative emotion, and recovery satisfaction to be well above the cut-off point of 0.50 (0.708^2), suggesting that the level of indicator reliability is sufficient. However, two items of recovery satisfaction (recsat2 and recsat3) were slightly below the cut-off point of 0.5, with outer loading values of 0.66 and 0.64. These indicators were retained as they are very close to 0.708 and their deletion would have affected content validity of the key construct (Hair et al., 2016). Also, they were retained because an attempt at deleting these items did not increase composite reliability or the average variance extracted (AVE), as recommended by Hair and others (2016). Internal consistency was assessed using the Cronbach's alpha reliability (conservative measure) and composite reliability (liberal measure) test. The true reliability of the latent construct lies between these two estimates (Hair et al., 2016). Cronbach's alpha reliability results show all the constructs to be above the threshold value of 0.7 (Hair et al., 2010), signalling that all the values of the key construct had a high level of internal consistency. Finally, the results of composite reliability testing also place all constructs above the threshold value of 0.7. Table 2 summarizes these results.

When it comes to validity, two tests were performed to assess convergent and discriminant validity. Convergent validity represents the degree to which the underlying construct explains the variance of its indicators (Hair et al., 2016), which is assessed based on the AVE values. The threshold value in convergent validity is 0.5 (Hair et al., 2016). The results of AVE testing indicate that all the three constructs are above the threshold value; therefore, they have higher convergent validity levels. This means that the latent variables of controllability, stability, negative emotion, and recovery satisfaction explain a substantial part of the variance of their indicators (Hair et al., 2016). The other validity measure of discriminant validity was tested for heterotrait-monotrait ratio (HTMT) of correlations (Henseler, Ringle & Sarstedt, 2015). It measures what the true correlation between two latent constructs would be if they were perfectly measured (Hair et al., 2016). The threshold limit value of the HTMT criterion is 0.85. The results in Table 2 show the HTMT values of all constructs to be significant and lower than the threshold value. Therefore, discriminant validity was established. Table 2 summarizes all the results of reliability and validity testing. As can be seen, all measurement model criteria are met.

TABLE 2: Measurement model summary

Latent variable	Indicator	Convergent validity		Internal consistency		Discriminant validity
		Loading	AVE	Composite reliability	Cronbach's alpha	HTMT
		> 0.7	> 0.5	0.6-0.9	0.6-0.9	below 0.9
Controllability	CONT1	0.73	0.613	0.825	0.826	Yes
	CONT2	0.75				
	CONT3	0.86				
Stability	STAB1	0.84	0.622	0.831	0.831	Yes
	STAB2	0.75				
	STAB3	0.77				
Negative emotion	EMOT1	0.72	0.541	0.702	0.702	Yes
	EMOT2	0.75				
Recovery satisfaction	RSAT1	0.86	0.533	0.771	0.776	Yes
	RSAT2	0.64				
	RSAT3	0.67				

Source: Researchers' calculations.

4.2.3. Structural model and hypotheses testing

After the successful establishment of the measurement model, the next step is to evaluate the structural model. Collinearity was checked first: the variance inflation factor (VIF) result of less than the threshold value of 5 indicates that there are no critical cases of collinearity between each set of predictor constructs. Structural equation modeling was used to test the relationships between all the proposed constructs used in the study. The predictive power of the structural model was measured by the coefficient of determination (R^2) value, where R^2 represents the combined effects of all exogenous constructs on the endogenous construct. More specifically, it represents the in-sample predictive power of the model (Sarstedt, Ringle, Henseler & Hair, 2014). Results show that all three constructs (controllability, stability, and negative emotions) in this study explain more than 70% (R^2=0.768) of variance in the recovery satisfaction. The same model estimation reveals that the predictor constructs of controllability and stability jointly explain more than 70% (R^2=0.714) of variance in negative emotions. As a rule of thumb, since all R^2 are above 70%, it implies strong explanation power (Henseler, Ringle & Sinkovics, 2009; Hair, Ringle & Sarstedt, 2011). SEM is equivalent to carrying out covariance-based SEM (CB-SEM). Therefore, the constructs used in the path model can be used to explain the dynamics of attribution and recovery satisfaction in MM transaction failures. The predictive relevance, or Stone-Geisser's Q^2 value, of the model regarding its endogenous constructs was also tested (Geisser, 1974; Stone, 1974). It is an additional assessment of the model fit to explain the predictive power of the model (Shmueli, Ray, Velasquez Estrada & Chatla, 2016), with Q^2 values above zero indicating predictive relevance. Blindfolding results for Q^2 values of the endogenous constructs of negative emotions and recovery satisfaction at 0.327 and 0.346, respectively, demonstrate these endogenous constructs' good predictive power.

Next, an assessment of structural model relationships was done. PLS-SEM results show that controllability ($\beta = 0.609$, $p < 0.001$) and stability ($\beta = 0.272$, $p < 0.001$) positively influence negative emotions, supporting H3 and H4. Moreover, results show that stability attribution ($\beta =$

−0.223, p < 0.001), controllability attribution (β = −0.56, p <0.001), and negative emotions (β = −0.143, p <0.008) have a negative effect on recovery satisfaction. Therefore, these results support H1, H2, and H5. Table 3 provides a summary of path coefficient estimates, p-values, and confidence levels.

5. DISCUSSION AND IMPLICATIONS

5.1. Discussion

The goal of this study was to understand the effect of two dimensions (controllability and stability) of attribution theory on explaining recovery satisfaction, as well as the mediation of negative emotions in this relationship. The study focused on MM transaction failures. Findings of this study demonstrate that a customer's perceived causal attribution plays a crucial role in determining recovery satisfaction, and negative emotions mediate this relationship partially.

TABLE 3: Summary of the structural model regarding direct and indirect relationships

Hypothesis	Path	Path coefficient	T-statistic	P values	Status
H1	Controllability > Recovery satisfaction	-0.560	7.582	0.000	Supported
H2	Stability > Recovery satisfaction	-0.223	4.529	0.000	Supported
H3	Controllability > Emotion	0.609	7.749	0.000	Supported
H4	Stability > Emotion	0.272	4.584	0.000	Supported
H5	Emotion > Recovery satisfaction	-0.143	2.671	0.008	Supported

Source: Researchers' calculations.

Hypothesis 6 (H6) and hypothesis 7 (H7) were intended to test the mediating role of negative emotions in the relationship between controllability and stability on recovery satisfaction. Mediator analysis was performed using consistent bootstrapping (Hair et al., 2016).

Using the mediation analysis procedure of Hair et al. (2016), we found that, in controllability, both direct effects (controllability>recovery satisfaction (p < 0.001),) and indirect effects (controllability>negative emotion>recovery satisfaction (p < 0.018),) were significant. Hence, it is concluded that negative emotions mediate the relationship between controllability and recovery satisfaction partially, thus supporting H6. In the stability attribution too, both direct effects (stability> recovery satisfaction (p<0.001)) and indirect effects (stability>negative emotion>recovery satisfaction (p < 0.016)) were significant, so we conclude that negative emotions have a partial mediation role in the relationship between stability and recovery satisfaction. Therefore, H7 is also supported.

Specifically, these findings show that customers' perception of controllability attribution has a stronger negative effect on recovery satisfaction when compared with stability in MM transaction failures. This is consistent with the findings of Van Vaerenbergh and others (2014) in their meta-analysis study, linking service failure attribution to customer outcomes. Again, the findings of previous studies on service failure in the airline industry, such as those of Nikbin, Iranmanesh, Hyun, Baharun and Kim (2015) and Matikiti and others (2019), were also confirmed. Subscribers' perception that "it could have been prevented, had the service provider acted differently" elicit more negative evaluation of ser-

vice quality. Therefore, they are likely to feel dissatisfied with the service recovery.

Results also show that stability attribution is negatively related to customer recovery satisfaction. This is consistent with the findings of Tsiros, Mittal, and Ross (2004), who highlighted that more frequent causes of service failure make customers update their assessment and incorporate them into dissatisfaction. Moreover, the findings were also in line with the studies by Velázquez and others (2009), Van Vaerenbergh and others (2014), Nikbin and others (2015), and Matikiti and others (2019). When subscribers perceive the high probability of MM transaction failure re-occurrence, they tend to be dissatisfied with service recovery. This is because they know in advance they will face the same hustles of recovery procedures over and over again.

Study findings also show that negative emotions of transaction failure influence recovery satisfaction. When MM service subscribers experience negative emotions, there is a high probability that they will not be satisfied with recovery. The finding is partly consistent with Nikbin and others (2015), who established that pre-recovery emotions relate to positive and negative post-recovery emotions, that is, on satisfaction. Therefore, when MM transaction failure is triggered, subscribers are likely to feel angered and disappointed (Vakeel et al., 2018). These negative emotions are more likely to create negative bias, i.e. dissatisfaction in recovery evaluations.

This study also investigated the mediating role of negative emotion on the relationship between causal attribution (controllability and stability) and recovery satisfaction. Findings show that negative emotions mediate partially between causal attribution and recovery satisfaction. When mobile money subscribers perceive high levels of stability and controllability, ths not only reduces their recovery satisfaction directly but also increases negative emotions, which in turn leads to reduced recovery satisfaction. This implies that some of the effect of stability and controllability on recovery satisfaction is indirectly explained by negative emotions.

5.2. Theoretical contribution

This study contributes significantly to the theoretical base by confirming the applicability of attribution theory (Weiner, 1985) to explain transaction failure in the MM setting. The theory had been tested in different contexts, such as airline services and online shopping. However, to our knowledge, this is the first research study to apply attribution theory as the principal theoretical basis for explaining MM transaction failures. Moreover, as the service failure attribution process itself is relatively understudied in emerging markets (Matikiti et al., 2019), especially in sub-Saharan Africa countries such as Tanzania, this study is an attempt to fill this gap. Also, it adds to the literature with the insights on the mediating role of negative emotions. A partial mediation (Hair et al., 2016) exists between causal attribution and recovery satisfaction. Therefore, controllability and stability attributions act as antecedents of negative emotions which, in turn, influence recovery satisfaction.

5.3. Managerial implication

It is generally recommended that sufficient resources should be allocated to address controllability and stability factors in general. Results showed controllability to be the primary driver of negative emotions and recovery satisfaction. This means that service providers should make controllability a management priority where resources are relatively scarce to manage both controllability and stability at the same time. That is, MM service providers should invest in proactive measures of serviced recovery, such as initiation (Miller, Craighead & Karwan, 2000) by detecting failures and notifying their customers in advance before they experience failure. This will strengthen customers' perception of uncontrollability. And as for stability, service providers should compile transaction failures which are frequently reported and identify their root cause so they can have a proper solution

in place. This research also shows that negative emotions mediate significantly the relationship between causal attributions (controllability and stability) and recovery satisfaction. This means that, if MM service subscribers have more negative emotions, they may not be dissatisfied with recovery satisfaction regardless of the quality of service recovery. Consequently, service providers should not simply focus on improving recovery packages; rather, it is important for them to understand the nature and degree of customers' negative emotions and try to match these with their recovery strategies. MM service providers may also expand the scope of they handling of subscribers' complaints. This could be done by increasing the number of contact points for customers to lodge complains. Apart from providing toll-free numbers and attending to customers in physical offices, they could extend service to emerging platforms such as social media platforms, applications, and website. This might minimize negative emotions and boost positive recovery expectations.

6. CONCLUSION, LIMITATIONS AND RECOMMENDATION FOR FUTURE RESEARCH

This study applied the attribution theory to explain the effect of attributions dimensions of stability and controllability on recovery satisfaction in MM setting, while also investigating mediating role of negative emotions in the relationship between causal attribution and recovery satisfaction. Findings reveal that controllability and stability attributions have a negative influence on recovery satisfaction. They also show that negative emotions mediate the relationship between causal attribution ad recovery satisfactions. Since little is still known about customer perception of and response to service failures in emerging economies (Matikiti et al., 2019), several questions remain to be answered. First, as the current study was done in the mobile money industry of Tanzania, East Africa, care should be taken when generalizing its results to other service settings. Therefore, it particularly important for other researchers to replicate the study in other settings, such as tourism and online marketing service failures in the emerging markets. Secondly, the current study focused on recovery satisfaction as an endogenous construct; however, attribution is also related to behavioural intentions, such as word-of-mouth and loyalty (Bitner et al., 1990; Vakeel et al., 2018). Further research regarding the role of attribution on behavioural intentions would be worthwhile. Thirdly, the presence of a third variable in analysis, for example mediators and moderators, helps to improve th undeerstanding of model relationships (Hair et al., 2016). The current study is limited to the mediating role of negative emotions only. Further research could test the relationship between service failure attribution and customer outcomes by incorporating different mediators (such as failure severity) and moderators (such as age and gender) in the model.

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