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Online relationship marketing and customer loyalty: a signaling theory perspective

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Abstract

Purpose – Online technologies have, in recent times, revolutionized the process of relationship building between firms and their customers. Nonetheless, there is a limited focus and theorization when it comes to explaining the link between online relationship marketing (ORM) activities and their impact on firm relationship marketing (RM) objectives. Thus, the purpose of this paper is to examine the signaling role of ORM activities in generating online trust and customer loyalty, through the lens of the signaling theory.

Design/methodology/approach – Data for the study were gathered through a survey of 429 Ghanaian retail bank customers. Results were analyzed using structural equation modeling techniques.

Findings – The paper highlights the signaling role of engagement and interactivity online in influencing banks' RM outcomes per the signaling theory. It concludes that bank's online relationship activities, over and above the online tools utilized, need to communicate appropriate and useful signals in order to positively influence online trust and loyalty among customers.

Originality/value – The study, in its uniqueness, utilizes the signaling theory to explain the role and impact of online RM activities in the banking industry.

Keywords Relationship marketing, Interactivity, Engagement, Signalling theory, Customer loyalty, Online trust

Paper type Research paper

1. Introduction

It has become increasingly important for firms to build relationships with their customers and other key stakeholders in the industries within which they operate. This can be attributed, in part, to the advent of new forms of technology, and their ability to alter the nature of relationships and the way they are developed between firms and their stakeholders (Verma *et al.*, 2016; Guo, 2014). Relationship marketing (RM) as a strategy contributes immensely to the firm's value proposition within the marketplace. It fosters partnerships, which ultimately lead to profitable exchanges that help firms to acquire, retain and adequately satisfy their customers (Kanagal, 2009). But, technological advances are affecting customer expectations (Armistead and Kiely, 2003). Their needs and wants are constantly evolving, and as a result, marketers must frequently evaluate their methods to keep up with emerging trends.

Although, businesses all over the globe are leveraging new and emerging technologies like e-mails (Huang and Shyu, 2009), Web 2.0 tools (Mitic and Kapoulas, 2012) and mobiles in enhancing existing relationships, as well as creating new channels of interaction with their customers, there is the need for extensive research regarding this phenomenon. Researchers such as Ghazi *et al.* (2013) and Huang and Shyu (2009) opine that there is limited research on firms' RM activities online and how it influences other RM outcomes. For instance, some scholars (Fam *et al.*, 2004) have postulated the relevance of studying the incorporation of firms' RM activities online with other organizational practices and outcomes, to the advancement of existing knowledge on the role and potential of internet technology in RM. Furthermore, there is also a need for more theorization in understanding the relationship between the online variables and the RM constructs. That conceptual link tends to be silent in extant online relationship marketing (ORM) research.

Thus, the purpose of this study is to examine the influence of ORM activities, namely, engagement and interactivity, on customer loyalty, as mediated by online trust within the banking industry. The remainder of this paper is organized as follows. First, the literature review and hypotheses are discussed, highlighting the underpinning theory for the study. This is followed by the methodology and the results of the data analysis, obtained from testing the conceptual model using structural equation modeling (SEM). The study concludes with a discussion of the importance of the findings to ORM research and their implications for bank managers; in addition to some directions for future research.

2. Literature review and hypotheses

2.1 Online relationship marketing (ORM)

The argument for technology and RM began as far back as the 1990s with studies by authors such as Geiger and Martin (1999), who researched into internet technology as an RM tool. Information technology (IT) has since been recognized as an effective medium for managing relationships, due to its ability to facilitate interaction and communication (Colgate *et al.*, 2005). Therefore, IT plays a critical role when it comes to advancing the practice of RM (Shapiro *et al.*, 2004). This is corroborated by several marketing scholars, who have over the years argued for the role of technology, as a necessary condition for the development of effective firm–customer relationships (Mishra and Li, 2008; Howcroft *et al.*, 2007; Zineldin, 2000).

ORM captures the use of manifold interactive web features and internet enabled tools to establish and develop mutually beneficial long-term relationships with their customers (Gan *et al.*, 2007; Harker, 1999). Firms host several applications over the internet, including websites and social media pages through which they coordinate several relationship development activities and processes (Shapiro *et al.*, 2004). The attributes of these online applications are often harnessed through activities like engagement, interactivity, advocacy, personalization and collaboration with the intention of building successful relationships with their customers (Ahn *et al.*, 2014; Ching and Ellis, 2006).

2.2 The signaling role of ORM activities

Signaling theory will be utilized to explain the role of ORM activities in firm RM. The theory emerged in response to information asymmetry – when parties in an exchange have access to different types of information – between transacting parties in business relations (Taj, 2016; Kirmani and Rao, 2000). This information asymmetry often occurs with regard to the characteristics of the service provider and their ability to effectively satisfy the needs of their customers, as well as distinguish themselves from other service providers (Connelly *et al.*, 2011). Signaling theory has been widely used in different fields to explain customer choice phenomenon. It espouses three primary elements, namely, the signaler (the service provider), the receiver (the customer) and the signal. The service provider in an effort to influence the opinions of their customers, often communicate information concerning their brand attributes and the quality of their service delivery. They desire to assure customers of their credibility and integrity; and this information is converted into signals, which are aptly transmitted to their customers using various mediums.

In recent times, firms are increasingly relying on the features of IT to send signals to customers, with the intent of influencing their perceptions and behavioral intentions (Benlian and Hess, 2011). More specifically, in relationship building they often relay signals to customers through the deployment of various internet tools and applications like Secure Socket Layer encryption and adept content and usability functions like help tabs and FAQ (Frequently asked questions) to communicate transparency, security and privacy (Mavlanova *et al.*, 2012; Benlian and Hess, 2011). Additionally, other signals are also sent

through the performance of specific activities over the internet including engagement, interaction, personalization and collaboration to foster long lasting relationships with customers (Guo, 2014; Farquhar and Rowley, 2006). Thus, for the purposes of this study, engagement and interactivity are viewed as signals that are utilized by firms to elicit online trust and loyalty among their customers.

2.3 Customer loyalty

Customer loyalty is one of the main factors that facilitate the attainment of firm competitive advantage (Prentice and Loureiro, 2017). It is an important asset that helps firms to secure future sales from their customers, as well as enhance their profitability (Kamran-Disfani *et al.*, 2017; Hallowell, 1996). Customer loyalty is defined as the positive attitude exhibited by customers toward a given product or service provider, resulting in repeat purchase behavior (Anderson and Srinivasan, 2003; Srinivasan *et al.*, 2002). Initial conceptualizations of the concept tended focus on the behavioral components (Kuehn, 1962), which made it difficult to distinguish between true loyalty and spurious loyalty (customers who show behavioral loyalty without attitudinal loyalty) (Kumar and Shah, 2004). But, some researchers aver that customer loyalty is best measured using both attitudinal components and behavioral components, in order to distinguish between the true loyalty and spurious loyalty that may result (Kumar and Shah, 2004; Anderson and Srinivasan, 2003). Several factors influence customer loyalty, including customer satisfaction (Hallowell, 1996) and customer trust, which according to Pan *et al.* (2012) has a relatively high level of predictive power when it comes to achieving customer loyalty. Even so, Srinivasan *et al.*, 2002 have also highlighted the significance of interactivity to customer loyalty.

2.4 Engagement

Vivek *et al.* (2012) defined engagement as "the intensity of an individual's participation and connection with the organization's offerings and activities initiated by either the customer or the firm" (p. 1). It is a concept that is viewed as a tool, which expedites the predictive power of customer behaviors, such as their loyalty and referrals (Thakur, 2016). The engagement of customers by firms online, often through social media, creates new opportunities for them to provide better service to their customers. The evidence of which is exhibited through specific customer behaviors including "liking" and commenting on content posted on the firm's social media page (Kabadayi and Price, 2014). It is a means of providing opportunities for value co-creation, where customers can contribute to firm performance by providing feedback, as well as playing the role of advocates for the firm's products and services (Brodie *et al.*, 2013; Sashi, 2012). Thereby, creating actively engaged co-creators of value who assume co-ownership of the firm's brand, as ambassadors (Kandampully *et al.*, 2015). Shin *et al.* (2016) found a significant relationship between engagement and interactivity. Whereas, Brodie *et al.* (2013) found that the customer engagement process often leads to customer trust. Nonetheless, Kandampully *et al.* (2015) asserted that creating customer engagement will enable firms to create an emotionally loyal customer base. Thus, it is hypothesized that:

H1. Engagement positively affects interactivity.

H2. Engagement positively affects online trust.

H3. Engagement positively affects customer loyalty.

2.5 Interactivity

Interactivity can be explained as the degree to which a dialogue can be established between a firm and its customers online, through information sharing (Fang, 2012). There are four

main aspects of interactivity, namely: reciprocity, responsiveness, non-verbal information and speed of response (Yoo *et al.*, 2015). Although, Fang (2012) noted that due to the spatial and temporal separation between firms and their customers online, all these aspects of interactivity are relatively complicated to achieve. Nevertheless, Mollen and Wilson (2010) averred the pivotal role of reciprocal or two-way communication in the process. This view is corroborated by Chen and Yen (2004) who suggest that reciprocity between firms and their customers online is the most prominent element of interactivity. Thus, firms use online tools such as e-mails to promote interactivity through frequent communication between themselves and their customers, in the form of responses, questions, comments, feedback and criticisms (Fang, 2012; Cobos *et al.*, 2009). Per Jeon *et al.* (2016), perceived website interactivity plays a critical role in inciting positive behavioral intentions among customers online. Likewise, the findings of Etemad-Sajadi (2016) show that online interactivity in real-time has a positive significant influence on online trust and customers' intentions to patronize a given brand. Therefore, this study hypothesizes that:

H4. Interactivity positively affects online trust.

H5. Interactivity positively affects customer loyalty.

2.6 Online trust
Online trust is a major element that contributes to the overall success of firm's marketing activities in the online context (Bleier and Eisenbeiss, 2015). Trust online is formed between firms and customers when the latter develop positive views about their service provider's ability to satisfy their needs, their magnanimity, as well as their honesty in their dealings online (Brun, Durif and Ricard, 2014; Brun, Rajaobelina and Ricard, 2014; Urban *et al.*, 2009). Brun, Durif and Ricard (2014) and Brun, Rajaobelina and Ricard (2014) averred that simpler and easier customer experiences online coupled with the accessibility and availability of a firm's web-based relationship strategy are important in creating trust online. Likewise, Pengnate and Sarathy (2017) found that both visual appeal and ease of use of a firm's online platforms are contributing factors in the formation of online trust. It can, therefore, be argued that online trust is established mainly through customers' self-perceptions based on their direct experiences and interaction with the firm online (Bock *et al.*, 2012). Online trust captures customer perceptions of how a firm's online platforms will deliver on their expectations, how believable they are, as well as the level of confidence they inspire in the customer (Urban *et al.*, 2009), all of which have been found to have a positive effect on customer loyalty (Fullerton, 2014; Kim *et al.*, 2011). Hence, this study hypothesizes that:

H6. Online trust positively affects customer loyalty.

2.7 Mediating role of interactivity and online trust
Researchers, such as Xu and Sundar (2014), have demonstrated the relationship between interactivity and engagement. Interactivity tends to enhance the appeal of interfaces to customers online, through the enhancement of their stickiness. This is usually achieved by means of the interactive features of various online applications utilized by firms in their relationship building efforts. Researchers, such as Shin *et al.* (2016), opine the mediating role of interactivity in predicting customer behavioral intentions during firm–customer interactions. For this reason, it is hypothesized that:

H7a. Interactivity mediates the relationship between engagement and online trust.

H7b. Interactivity mediates the relationship between engagement and customer loyalty.

Furthermore, Morgan and Hunt (1994) proffered that commitment and trust are the two key variables that mediate the success of any long-term relational exchange; especially in the online context (Casalo *et al.*, 2007). For instance, Jeon *et al.* (2016) found that online trust fully mediates the relationship between perceived website interactivity and repurchase intention among customers of a travel website. This is verified by Wang *et al.* (2015) who statistically identified the mediating role of online trust between hotel website quality and customers' intentions to place a booking online. Therefore, the study hypothesizes that:

H8a. Online trust mediates the relationship between Engagement and customer loyalty.

H8b. Interactivity mediates the relationship between interactivity and customer loyalty.

Figure 1 presents the conceptual model for the study, and the hypothesized relationships elaborated above.

3. Method
3.1 Sample and data collection
The study adopts a quantitative approach, using the survey technique to test the research hypotheses presented above (Creswell, 2014; Ponterotto, 2005). Using the intercept approach (Sharma, 2015), a sample of 429 bank customers were sampled from three of the major cities in the southern part of Ghana referred to as "the golden triangle", namely, Accra, Kumasi and Takoradi to participate in the study (Modern Ghana, 2017). The banking industry was selected due to its high level of advancement when it comes to the adoption and use of emerging technologies in their service delivery activities (Price Waterhouse Coopers (PwC) Ghana , 2015). The Ghanaian banking industry includes 32 local and international banks; each having an official presence online either through a website or at least one of the many social media sites, such as Facebook. This is a prerequisite in order to investigate issues regarding their ORM activities and customer trust online. Thus, for the purposes of this research, the respondents were selected based on their prior experience and interaction with their banks' relationship building efforts using these online platforms (Huck, 2012).

3.2 Measures
The constructs presented in Figure 1 were captured using multiple items measured on a five-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree." Some of measurement items for the constructs were adapted from previous research in RM both
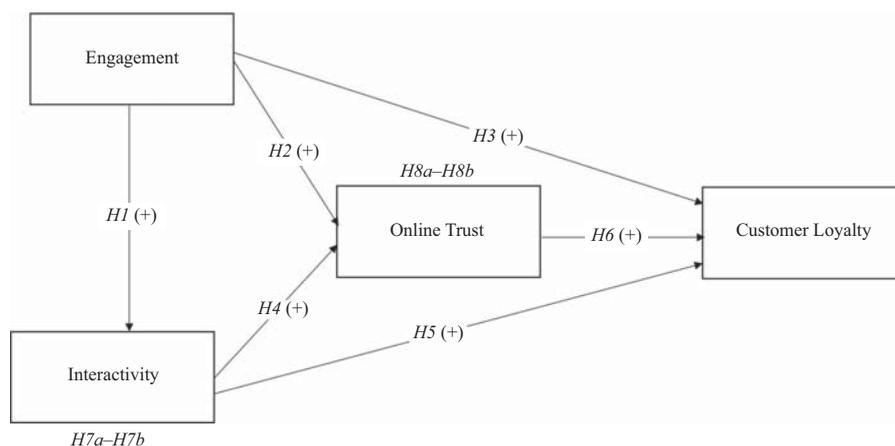

Figure 1.
Conceptual model

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offline and online, while other measures were newly developed based on a review of existing literature on ORM. Engagement was measured using four items adapted from Guo (2014) and Cobos *et al.* (2009). Interactivity was measured with five items based on the works of Cobos *et al.* (2009) and Farquhar and Rowley (2006). Customer trust online was also measured using five items adapted from Wang *et al.* (2015) and Bilgihan and Bujisic (2015). Whereas, customer loyalty was measured using five items which were developed going by Labrecque (2014) and Huang and Shyu (2009). Each construct and their respective measurement items are presented in Table I.

4. Results

4.1 Sample characteristics

Respondents were largely male (63.4 percent), with females accounting for only 36.6 percent. The dominant age group was 31–40 years (42.4 percent), with 34 percent having a Diploma/HND followed by those with a secondary level education (31.9 percent), tertiary – undergraduate (24 percent), tertiary – postgraduate (8.9 percent) and primary education (1.2 percent). Overall, the entire sample indicated that they communicated with their banks online, mainly through e-mails (100 percent), and at other times through the banks website (79 percent), as well as their Facebook and Twitter pages using social media (38.5 percent).

Construct and measurement items	β	*t*-value (significance)	CR	AVE	α
Engagement			0.90	0.70	0.90
I "like" content posted on my bank's Facebook page	0.92	Fixed			
I retweet comments posted on my bank's Twitter handle	0.71	18.12***			
My bank's website has hotlinks to their Twitter/Facebook pages	0.87	26.45***			
Other customers provide helpful information on my bank's Facebook page	0.82	23.51***			
Interactivity			0.95	0.80	0.95
My bank has site navigation tools on their website	0.89	Fixed			
My bank's website has a search tool that enables me to locate items	0.93	30.50***			
I get the desired answers to my online enquiries	0.90	28.36***			
24-hour live chat/help is available on my bank's website	0.85	24.54***			
My bank's online platforms provide mechanisms that help me to evaluate and select appropriate products and services	0.90	28.36***			
Online trust			0.84	0.52	0.84
I can count on my bank to ensure that transactions carried out on its website are without error	0.81	Fixed			
I think that the information presented on my bank's website is reliable	0.78	17.28***			
My bank keeps customers' best interests in mind	0.57	11.95***			
I think that my bank would not do anything intentional on their website that would be unfair to customers	0.82	18.32***			
I feel like my privacy is protected while transacting with my bank online	0.60	12.59***			
Customer loyalty			0.86	0.55	0.85
I would be willing to pay a higher price for my bank's services over other banks	0.64	Fixed			
I prefer my bank to its competitors	0.74	12.57***			
My bank is the best bank for me	0.75	12.74***			
I would be willing to defend my bank in the face of any controversy	0.82	13.56***			
I would consider my bank as my first choice for patronizing banking services	0.77	12.99***			

Table I.
Measurement model results

Notes: $n = 429$. ***$p \leqslant 0.001$

4.2 Psychometric properties of the scales

Confirmatory factor analysis was performed to assess the reliability and validity of the constructs and scales used. To do this, a measurement model was estimated, consisting of four latent factors, as presented in Figure 1. The outcome of which is presented in Table I. Model fit was evaluated using $\chi^2/df = 2.77$ ($p < 0.001$), incremental fit index (IFI) $= 0.96$, Tucker–Lewis index (TLI) $= 0.95$, comparative fit index (CFI) $= 0.96$ and root mean square error of approximation (RMSEA) $= 0.06$. The model estimated shows a good fit with the data, as all the fit indices outlined above fall within the acceptable cut-off limits (Schreiber, 2008). The factor loadings of all the measurement items for each construct are also detailed in Table I. Each factor loading in the table is greater than 0.5, satisfying the requirements for acceptability (Marticotte and Arcand, 2017; Hair *et al.*, 2006).

To determine the reliability of the four constructs their composite reliabilities (CR) were extracted. These ranged from 0.84 to 0.95, exceeding the prescribed criterion of 0.6 and above (Bagozzi and Yi, 2012). To test the inter-item reliability, Cronbach's α values were considered all of which exceeded the suggested criteria of 0.70, as presented in Table I. To evaluate the construct validity, the convergent and discriminant validities were each examined (Fornell and Larcker, 1981). Regarding convergent validity, the average variance extracted (AVE) for each construct was examined. These were all found to be above 0.5 (see Table I), indicating convergent validity (Khan *et al.*, 2016). While for discriminant validity, the AVE values for each construct are compared with the squared individual inter-construct correlations, as presented in Table II (Fornell and Larcker, 1981). It emerged that all the AVE values were greater than the square of each inter-construct correlation; thereby satisfying the criteria for discriminant validity.

4.3 SEM analysis and hypotheses testing

SEM was used to investigate the causal relationships between the predictor and outcome variables that are hypothesized in the research framework. This was done through the estimation of separate structural models in Amos 22 to test the direct and mediating relationships. The estimates for the test of direct relationships are presented in Table III and graphically depicted in Figure 2. These capture the findings of the tests for *H1* through to *H6*. As can be observed from Table III, all the hypotheses were supported (*H1*, *H3*, *H4*, *H5*, *H6*), except for one (*H2*). Engagement was found to have a significant positive effect on interactivity ($\beta = 0.71$, $p < 0.001$) and customer loyalty ($\beta = 0.17$, $p = 0.03$). While interactivity was found to have a significant positive influence on online trust ($\beta = 0.75$, $p < 0.001$) and a significant negative effect on customer loyalty ($\beta = 0.66$, $p = 0.001$).

The negative effect of interactivity on customer loyalty came as a bit of a surprise; given that interactivity has been found and is expected to contribute positively to enhancing customer loyalty (Etemad-Sajadi, 2016; Cyr *et al.*, 2009). Nevertheless, the relationship

Construct	1	2	3	4
1. Engagement	*0.70*			
2. Interactivity	0.50	*0.80*		
3. Online trust	0.34	0.62	*0.52*	
4. Customer loyalty	0.10	0.09	0.24	*0.55*
Mean	2.5	3.5	4.1	4.0
SD	1.2	1.2	0.7	0.7

Notes: Average variances extracted (AVE) are on the diagonal (in italic); squared correlations are off-diagonal. The AVEs for each construct are far greater than the corresponding inter-construct square correlations, thereby supporting discriminant validity

Table II.
Convergent and discriminant validities of the measures

between engagement and online trust was found to be insignificant ($\beta = 0.66$, $p = 0.001$), as seen in Table III. This outcome substantiates the work of scholars such as Kandampully *et al.* (2015) and Brodie *et al.* (2013), who have demonstrated the significant influence of engagement and interactivity in eliciting online trust and creating a loyal customer base. Overall, the model shows good fit, with $\chi^2/\text{df} = 2.77$ ($p < 0.001$), IFI $= 0.96$, TLI $= 0.95$, CFI $= 0.96$ and RMSEA $= 0.06$ (Schreiber, 2008).

4.4 Mediation analysis

A mediation analysis was subsequently conducted using a bootstrap sample of 2,000. Table IV highlights the outcome of this analysis, indicating the presence of both partial and full mediation relationships. It can be observed from the table that engagement affects online trust through interactivity but has no significant direct effect on it; thereby demonstrating that interactivity fully mediates the relationship between engagement and online trust. Also, interactivity was found to partially mediate the relationship between engagement and customer loyalty, since the direct path from engagement to customer loyalty, as well as the indirect path through interactivity were both found to be significant. Thus, providing support for *H7a* and *H7b*. Additionally, the direct path from interactivity to customer loyalty, and the indirect path through online trust are both significant. This signifies that online trust partially mediates the relationship between interactivity and customer loyalty, as predicted in *H8b*.

These findings are consistent with previous researchers such as Kamran-Disfani *et al.* (2017) who emphasize the pertinent role of trust as a mediator in firm–customer interactions. They also

Hypothesis	Path description	β	*t*-value	Results
H1	Engagement → interactivity	0.71	15.98***	Supported
H2	Engagement → online trust	0.06	0.97	Not supported
H3	Engagement → customer loyalty	0.17	2.24*	Supported
H4	Interactivity → online trust	0.75	11.74***	Supported
H5	Interactivity → customer loyalty	−0.34	−3.18***	Supported
H6	Online trust → customer loyalty	0.66	6.29***	Supported

Table III.
Direct path analysis

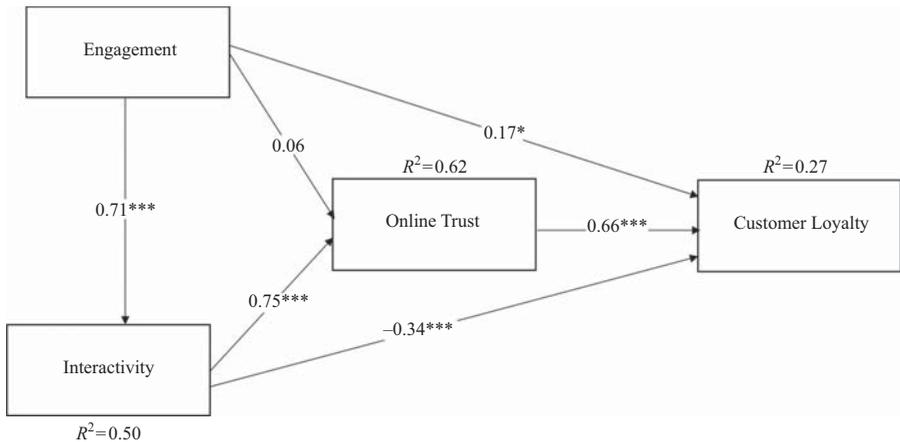**Notes:** *$p \leqslant 0.05$; ***$p \leqslant 0.001$

Figure 2.
Results of the structural model

Notes: *$p \leqslant 0.05$; ***$p \leqslant 0.001$

Relationship	Hypothesis	Direct without mediator (p-value)	Direct with mediator (p-value)	Indirect effect	Mediation type
Engagement → interactivity → online trust	H7a	0.06 (0.31)	0.06 (0.33)	***	Full mediation
Engagement → interactivity → customer loyalty	H7b	0.19 (*)	0.17 (*)	***	Partial mediation
Engagement → online trust → customer loyalty	H8a	0.19 (*)	0.17 (*)	0.17	No mediation
Interactivity → online trust → customer loyalty	H8b	0.18 (*)	−3.18 (***)	***	Partial mediation

Notes: *$p \leqslant 0.05$; ***$p \leqslant 0.001$

corroborate the outcome of studies conducted by scholars such as Shin *et al.* (2016), which identify interactivity as a significant mediator between engagement and certain perceived customer attitudes. Nonetheless, when the effect of engagement on customer loyalty was mediated by trust, the indirect effect was insignificant; thereby failing to provide support for *H8a*.

5. Discussion and conclusion

This research sought to examine the influence of firms' engagement and interactivity activities online on customer loyalty; and how these relationships are mediated by trust online within the banking industry. The outcome of the data analysis largely supports the hypothesized relationships specified in the conceptual model (see Figure 1), as depicted in Tables III and IV. Specifically, by applying the signaling theory to explain these relationships within the online context, this study suggests that irrespective of the technological platform being used by a signaling party, the right signals must always be sent to receivers for them to assess.

From the perspective of signaling theory, Mollen and Wilson (2010) conceptualized engagement as "a discrete experiential property, independent of interactivity" (p. 920), which involves the customer utilizing their reasoning, problem solving, decision making, as well as their evaluation skills to assess a signal and respond to that signal. In reference to this, it was observed that some Ghanaian banks provide hotlinks on their websites to their respective social media pages, where customers are able to "like" content and "repost" and "retweet" content posted by both the bank and other users online. The provision of these hotlinks is in line with the literature, since customer engagement has been proffered to come about mainly on social media (Wirtz *et al.*, 2013). Thus, the significant influence of engagement on interactivity and customer loyalty was expected, given that previous research asserts the positive effects of customer engagement on interactivity and customer loyalty (Khan *et al.*, 2016; Kandampully *et al.*, 2015). However, the lack of influence of engagement on online trust contests the assertion of researchers such as Brodie *et al.* (2013) who purport that customers who are engaged by their service providers online can build trust. This is demonstrated by Wu and Chang (2005) who aver that it is only when online trust exists in an online community that the customer can meaningfully engage. Additionally, the relationship between interactivity and online trust, as well as customer loyalty, were both proven to be significant. Sensory experience is of great importance to customers within the Ghanaian context when purchasing products and services (Boateng *et al.*, 2011). However, this experience disappears to a large extent within the online medium. Interactivity serves to mitigate the negative effects of this lack of physical interaction by providing semblances of a human presence in customer dealings with their banks online.

Consequently, it communicates an air of reliability and dependability to the customer, as put forth by the signaling theory. This is in line with the findings of Beuckels and Hudders (2016), which asserts that interactivity generally has a positive effect on customers' attitudes toward service providers online. Nonetheless, the findings reveal a negative relationship between interactivity and customer loyalty. It could be inferred that this negative relationship between interactivity and customer loyalty is associated with the relative complexity involved in firms achieving the various aspects of interactivity. As earlier explained from signaling theory, for the aims of the signaling party to be achieved, the signals sent need to be received and properly understood by the receiver for it to have an effect (Mavlanova *et al.*, 2016). Much of the efforts for ORM activities of Ghanaian banks are through their websites and e-mails, which facilitate specific components of interactivity like reciprocity and synchronicity, to the neglect of other dimensions, such as controllability and demonstrability (Abdullah *et al.*, 2016). Thus, the banks could benefit from the creation of a higher contact environment with their customers online, which incorporates an array of the different dimensions of interactivity, to enhance the positive effects of signals sent to influence customer loyalty. Furthermore, online trust was found to significantly affect customer loyalty. This indicates that to be able to endear their customers to remain loyal, banks need to enhance their trust inducing measures online.

Concerning the mediating roles of interactivity and online trust, the findings provide evidence for the full mediation effect of interactivity on the relationship between engagement and online trust, whereas interactivity only partially mediates the impact of engagement on customer loyalty. Therefore, an enhancement of bank–customer interactions online will most likely influence customers' decision of whether or not to trust their banks online, or switch based on engagement levels. But, online trust only partially mediates the influence of interactivity on bank customers' decisions to remain loyal. These outcomes confirm the results of previous studies, which provide similar results in testing these relationships. For instance, Shin *et al.* (2016) found that the significant effects of the range of thumb movements allowed on a smartphone, on customer engagement and behavioral intention, were mediated by perceived interactivity. Similarly, Bart *et al.* (2005) found that online trust partially mediates the relationships between website characteristics and customer behavioral intent. This suggests that it is imperative for banks to utilize the tools of engagement and online interactivity in building online trust and increasing switching barriers among their customer base to keep them loyal. It is easier to retain existing customers than to repeatedly go out in search of new ones; therefore, banks need to continually upgrade the reliability and functionality of their online platforms to encourage customers to keep utilizing the online medium in conducting business with them into the long term. As Herington and Weaven (2007) explained, quality service provision online is usually expected by bank customers. Hence, higher levels of online service quality will play a key role in maintaining bank–customer relationships.

The findings of this study have yielded several conclusions concerning ORM in the banking industry. First, banks across the globe are engaged in intense competition through the introduction of new forms on IT, often over the internet to sustain and enhance their competitive advantage. Though laudable, it is equally important for these online technologies used in ORM to emit the right and useful signals to engender online trust and loyalty among customers. Banks also need to develop the necessary policies and strategies to leverage these online technologies to build successful long-term relationships with customers. Moreover, the level of reliability of information provided via banks' online platforms, in addition to the usability, and functionality of these online channels also have a noteworthy role in influencing customer perceptions and intentions.

Even so, there are several opportunities for future research to expand this study. To begin, this study was limited to a specific industry, the banking industry. Thus, to

further explore the applicability of the underpinning theory, and compare results obtained, future research could be directed at other sectors of the financial service sector like insurance services, investments and pensions. Second, the study focused on an emerging economy – Ghana, and studied a limited number of ORM activities. Ghana is a context where comparably internet usage (19.6 percent penetration in 2015) is just stepping out of its nascent stages (Internet World Stats, 2016). Thus, some new and emerging technologies like social media are yet to catch up with consumers and even formally with banks. As a result, social media was the least represented internet application used by banks surveyed in this study. This limited use or adoption of such internet applications tends to influence the nature of ORM activities conducted by banks or experienced by customers. It is, therefore, likely that a future study in a country which exhibits a higher internet penetration or use of social media may be a good test for the ORM activities and relationships espoused in the conceptual framework.

References

Abdullah, D., Jayaraman, K. and Kamal, S.B.M. (2016), "A conceptual model of interactive hotel website: the role of perceived website interactivity and customer perceived value toward website revisit intention", *Procedia Economics and Finance*, Vol. 37 No. 1, pp. 170-175.

Ahn, T., Hong, M. and Pedersen, P.M. (2014), "Effects of perceived interactivity and web organization on user attitudes", *European Sport Management Quarterly*, Vol. 14 No. 2, pp. 111-128.

Anderson, R. and Srinivasan, S. (2003), "E-satisfaction and e-loyalty: a contingency framework", *Psychology and Marketing*, Vol. 20 No. 2, pp. 123-138.

Armistead, C. and Kiely, J. (2003), "Creating strategies for managing evolving customer service", *Managing Service Quality*, Vol. 13 No. 2, pp. 164-170.

Bagozzi, R.P. and Yi, Y. (2012), "Specification, evaluation, and interpretation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 40 No. 1, pp. 8-34.

Bart, Y., Shankar, V., Sultan, F. and Urban, G.L. (2005), "Are the drivers and role of online trust the same for all websites and consumers? A large-scale exploratory empirical study", *Journal of Marketing*, Vol. 69 No. 4, pp. 133-152.

Benlian, A. and Hess, T. (2011), "The signalling role of it features in influencing trust and participation in online communities", *International Journal of Electronic Commerce*, Vol. 15 No. 4, pp. 7-56.

Beuckels, E. and Hudders, L. (2016), "An experimental study to investigate the impact of image interactivity on the perception of luxury in an online shopping context", *Journal of Retailing and Consumer Services*, Vol. 33 No. 1, pp. 135-142.

Bilgihan, A. and Bujisic, M. (2015), "The effect of website features in online relationship marketing: a case of online hotel booking", *Electronic Commerce Research and Applications*, Vol. 15 No. 4, pp. 222-232.

Bleier, A. and Eisenbeiss, M. (2015), "The importance of trust for personalized online advertising", *Journal of Retailing*, Vol. 91 No. 3, pp. 390-409.

Boateng, R., Molla, A., Heeks, R. and Hinson, R. (2011), "Advancing e-commerce beyond readiness in a developing economy: experiences of Ghanaian firms", *Journal of Electronic Commerce in Organisations*, Vol. 9 No. 1, pp. 1-16.

Bock, G.-W., Lee, J., Kuan, H.-H. and Kim, J.-H. (2012), "The progression of online trust in the multi-channel retailer context and the role of product uncertainty", *Decision Support Systems*, Vol. 53 No. 1, pp. 97-107.

Brodie, R.J., Ilic, A., Juric, B. and Hollebeek, L. (2013), "Consumer engagement in a virtual brand community: an exploratory analysis", *Journal of Business Research*, Vol. 66 No. 1, pp. 105-114.

Brun, I., Durif, F. and Ricard, L. (2014), "E-relationship marketing: a cognitive mapping introspection in the banking sector", *European Journal of Marketing*, Vol. 48 Nos 3/4, pp. 572-594.

Brun, I., Rajaobelina, L. and Ricard, L. (2014), "Online relationship quality: scale development and initial testing", *International Journal of Bank Marketing*, Vol. 32 No. 1, pp. 5-27.

Casalo, L.V., Flavián, C. and Giunalíu, M. (2007), "The influence of satisfaction, perceived reputation and trust on a consumer's commitment to a website", *Journal of Marketing Communications*, Vol. 13 No. 1, pp. 1-17.

Chen, K. and Yen, D.C. (2004), "Improving the quality of online presence through interactivity", *Information and Management*, Vol. 42 No. 1, pp. 217-226.

Ching, H.L. and Ellis, P. (2006), "Does relationship marketing exist in cyberspace?", *Management International Review*, Vol. 46 No. 5, pp. 557-572.

Cobos, L., Wang, Y.C. and Okumus, F. (2009), "Assessing the web-based destination marketing activities: a relationship marketing perspective", *Journal of Hospitality Marketing and Management*, Vol. 18 No. 4, pp. 421-444.

Colgate, M., Buchanan-Oliver, M. and Elmsly, R. (2005), "Relationship benefits in an internet environment", *Managing Service Quality*, Vol. 15 No. 5, pp. 426-436.

Connelly, B.L., Certo, S.T., Ireland, R.D. and Reutzel, C.R. (2011), "Signalling theory: a review and assessment", *Journal of Management*, Vol. 37 No. 1, pp. 39-67.

Creswell, J.W. (2014), *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*, SAGE Publications, Thousand Oaks, CA.

Cyr, D., Head, M. and Ivanov, A. (2009), "Perceived interactivity leading to e-loyalty: development of a model for cognitive–affective user responses", *International Journal of Human-Computer Studies*, Vol. 67 No. 10, pp. 850-869.

Etemad-Sajadi, R. (2016), "The impact of online real-time interactivity on patronage intention: the use of avatars", *Computers in Human Behaviour*, Vol. 61 No. 1, pp. 227-232.

Fam, K.S., Foscht, T. and Collins, R.D. (2004), "Trust and the online relationship – an exploratory study from New Zealand", *Tourism Management*, Vol. 25 No. 2, pp. 195-207.

Fang, Y.H. (2012), "Does online interactivity matter? Exploring the role of interactivity strategies in consumer decision making", *Computers in Human Behaviour*, Vol. 28 No. 5, pp. 1790-1804.

Farquhar, J. and Rowley, J. (2006), "Relationships and online consumer communities", *Business Process Management Journal*, Vol. 12 No. 2, pp. 162-179.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equations models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.

Fullerton, G. (2014), "The moderating effect of normative commitment on the service quality-customer retention relationship", *European Journal of Marketing*, Vol. 48 Nos 3/4, pp. 657-673.

Gan, L., Sim, C.J., Tan, H.L. and Tna, J. (2007), "Online relationship marketing by Singapore hotel websites", *Journal of Travel and Tourism Marketing*, Vol. 20 Nos 3/4, pp. 1-19.

Geiger, S. and Martin, S. (1999), "The internet as a relationship marketing tool – some evidence from Irish companies", *Irish Marketing Review*, Vol. 12 No. 2, pp. 24-36.

Ghazi, A.A., Muhammed, S.A., Khalil, A., Fwwaz, A. and Raed, A. (2013), "Electronic networks and relationship marketing: qualitative evidence from Jordanian travel agencies", *Journal of Relationship Marketing*, Vol. 12 No. 4, pp. 261-279.

Guo, M. (2014), "Relationship marketing in an online social media context: newspaper versus television brand websites comparison", *Journal of Media Business Studies*, Vol. 11 No. 4, pp. 1-26.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006), *Multivariate Data Analysis*, Prentice Hall, Upper Saddle River, NJ.

Hallowell, R. (1996), "The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study", *International Journal of Service Industry Management*, Vol. 7 No. 4, pp. 27-42.

Harker, M.J. (1999), "Relationship marketing defined. An examination of current relationship marketing definitions", *Marketing Intelligence and Planning*, Vol. 17 No. 1, pp. 13-20.

Herington, C. and Weaven, S. (2007), "Can banks improve customer relationships with high quality online services?", *Managing Service Quality: An International Journal*, Vol. 17 No. 4, pp. 404-427.

Howcroft, B., Durkin, M., Armstrong, G. and Emerson, E. (2007), "Small business-bank relationships and the role of internet banking", *The Service Industries Journal*, Vol. 27 No. 7, pp. 947-961.

Huang, J.-H. and Shyu, S.H. (2009), "Building personalized relationships with customers via emails", *Total Quality Management and Business Excellence*, Vol. 20 No. 6, pp. 585-601.

Huck, S.W. (2012), *Reading Statistics and Research*, International ed., Allyn & Bacon, Boston, MA.

Internet World Stats (2016), "Usage and population statistics. IWS-internet penetration Ghana", available at: www.internetworldstats.com/af/gh.htm (accessed November 19, 2017).

Jeon, H., Jang, J. and Barrett, E.B. (2016), "Linking website interactivity to consumer behavioural intention in an online travel community: the mediating role of utilitarian value and online trust", *Journal of Quality Assurance in Hospitality &Tourism*, Vol. 18 No. 2, pp. 1-24.

Kabadayi, S. and Price, K. (2014), "Consumer-brand engagement on Facebook: liking and commenting behaviours", *Journal of Research in Interactive Marketing*, Vol. 8 No. 3, pp. 203-223.

Kamran-Disfani, O., Mantrala, M.K., Izquierdo-Yusta, A. and Martínez-Ruiz, M.P. (2017), "Interaction, engagement, and perceived interactivity in single-handed interaction", *Journal of Business Research*, Vol. 77 No. 1, pp. 14-22.

Kanagal, N. (2009), "Role of relationship marketing in competitive marketing strategy", *Journal of Management and Marketing Research*, Vol. 2 No. 1, pp. 1-17.

Kandampully, J., Zhang, T.C. and Bilgihan, A. (2015), "Customer loyalty: a review and future directions with a special focus on the hospitality industry", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 3, pp. 379-414.

Khan, I., Rahman, Z. and Fatma, M. (2016), "The role of customer brand engagement and brand experience in online banking", *International Journal of Bank Marketing*, Vol. 34 No. 7, pp. 1025-1041.

Kim, M.J., Chung, N. and Lee, C.K. (2011), "The effect of perceived trust on electronic commerce: shopping online for tourism products and services in South Korea", *Tourism Management*, Vol. 32 No. 2, pp. 256-265.

Kirmani, A. and Rao, A.R. (2000), "No pain, no gain: a critical review of the literature on signalling unobservable product quality", *Journal of Marketing*, Vol. 64 No. 2, pp. 66-79.

Kuehn, A. (1962), "Consumer brand choice as a learning process", *Journal of Advertising Research*, Vol. 2 No. 1, pp. 10-17.

Kumar, V. and Shah, D. (2004), "Building and sustaining profitable customer loyalty in the 21st century", *Journal of Retailing*, Vol. 80 No. 4, pp. 317-330.

Labrecque, L.I. (2014), "Fostering consumer-brand relationships in social media environments: the role of parasocial interaction", *Journal of Interactive Marketing*, Vol. 28 No. 2, pp. 134-148.

Marticotte, F. and Arcand, M. (2017), "Schadenfreude, attitude and the purchase intentions of a counterfeit luxury brand", *Journal of Business Research*, Vol. 77 No. 1, pp. 175-183.

Mavlanova, T., Benbunan-Fich, R. and Koufaris, M. (2012), "Signalling theory and information asymmetry in online commerce", *Information & Management*, Vol. 49 No. 5, pp. 240-247.

Mavlanova, T., Benbunan-Fich, R. and Lang, G. (2016), "The role of external and internal signals in e-commerce", *Decision Support Systems*, Vol. 87 No. 1, pp. 59-68.

Mishra, K.E. and Li, C. (2008), "Relationship marketing in fortune 500 US and Chinese web sites", *Journal of Relationship Marketing*, Vol. 7 No. 1, pp. 29-43.

Mitic, M. and Kapoulas, A. (2012), "Understanding the role of social media in bank marketing", *Marketing Intelligence & Planning*, Vol. 30 No. 7, pp. 668-686.

Modern Ghana (2017), "Ghana history population politics", available at: www.modernghana.com/ghanahome/ghana/ (accessed October 18, 2017).

Mollen, A. and Wilson, H. (2010), "Engagement, telepresence and interactivity in online consumer experience: reconciling scholastic and managerial perspectives", *Journal of Business Research*, Vol. 63 Nos 9/10, pp. 919-925.

Morgan, R.M. and Hunt, S.D. (1994), "The Commitment-Trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 No. 3, pp. 20-38.

Pan, Y., Sheng, S. and Xie, F.T. (2012), "Antecedents of customer loyalty: an empirical synthesis and re-examination", *Journal of Retailing and Consumer Services*, Vol. 19 No. 1, pp. 150-158.

Pengnate, S.F. and Sarathy, R. (2017), "An experimental investigation of the influence of website emotional design features on trust in unfamiliar online vendors", *Computers in Human Behaviour*, Vol. 67 No. 1, pp. 49-60.

Ponterotto, J.G. (2005), "Qualitative research in counselling psychology: a primer on research paradigms and philosophy of science", *Journal of Counselling Psychology*, Vol. 52 No. 2, pp. 126-136.

Prentice, C. and Loureiro, S.M.C. (2017), "An asymmetrical approach to understanding configurations of customer loyalty in the airline industry", *Journal of Retailing and Consumer Services*, Vol. 38 No. 1, pp. 96-107.

Price Waterhouse Coopers (PwC) Ghana (2015), "The bank of the future: what bank customers want to experience by 2020", available at: www.pwc.com/gh/en/assets/pdf/2015-banking-survey.pdf (accessed November 21, 2017).

Sashi, C.M. (2012), "Customer engagement, buyer-seller relationships, and social media", *Management Decision*, Vol. 50 No. 2, pp. 253-272.

Schreiber, J.B. (2008), "Core reporting practices in structural equation modelling", *Research in Social and Administrative Pharmacy*, Vol. 4 No. 2, pp. 83-97.

Shapiro, J.M., Romano, N.C. and Mittal, B. (2004), "Emergent internet technology applications for relationship marketing", *Journal of Relationship Marketing*, Vol. 2 Nos 3/4, pp. 85-108.

Sharma, P. (2015), "Consumer ethnocentrism: reconceptualization and cross-cultural validation", *Journal of International Business Studies*, Vol. 46 No. 3, pp. 381-389.

Shin, D., Choi, M., Kim, J.H. and Lee, J. (2016), "Interaction, engagement and perceived interactivity in single-handed interaction", *Internet Research*, Vol. 26 No. 5, pp. 1134-1157.

Srinivasan, S.S., Anderson, R. and Ponnavolu, K. (2002), "Customer loyalty in e-commerce: an exploration of its antecedents and consequences", *Journal of Retailing*, Vol. 78 No. 1, pp. 41-50.

Taj, S.A. (2016), "Application of signalling theory in management research: Addressing major gaps in theory", *European Management Journal*, Vol. 34 No. 4, pp. 338-348.

Thakur, R. (2016), "Understanding customer engagement and loyalty: a case of mobile devices for shopping", *Journal of Retailing and Consumer Services*, Vol. 32 No. 2, pp. 151-163.

Urban, L.G., Amyx, C. and Lorenzo, A. (2009), "Online trust: state of the art, new frontiers, and research potential", *Journal of Interactive Marketing*, Vol. 23 No. 1, pp. 179-190.

Verma, V., Sharma, D. and Sheth, J. (2016), "Does relationship marketing matter in online retailing? A meta-analytic approach", *Journal of the Academy of Marketing Science*, Vol. 44 No. 2, pp. 206-217.

Vivek, S.D., Beatty, S.E. and Morgan, R.M. (2012), "Consumer engagement: exploring customer relationships beyond purchase", *Marketing Theory and Practice*, Vol. 20 No. 2, pp. 122-146.

Wang, L., Law, R., Guillet, B.D., Hung, K. and Fong, K.C. (2015), "Impact of hotel website quality on online booking intentions: eTrust as a mediator", *International Journal of Hospitality Management*, Vol. 47 No. 1, pp. 108-115.

Wirtz, J., den Ambtman, A., Bloemer, J., Horváth, C., Ramaseshan, B., van de Klundert, J., Canli, Z.G. and Kandampully, J. (2013), "Managing brands and customer engagement in online brand communities", *Journal of Service Management*, Vol. 24 No. 3, pp. 223-244.

Wu, J.-J. and Chang, Y.-S. (2005), "Towards understanding members' interactivity, trust, and flow in online travel community", *Industrial Management & Data Systems*, No. 7, pp. 937-954.

Xu, Q. and Sundar, S.S. (2014), "Lights, camera, music, interaction", *Communication Research*, Vol. 41 No. 2, pp. 282-308.

Yoo, C.W., Kim, Y.J. and Sanders, G.L. (2015), "The impact of interactivity of electronic word of mouth systems and e-Quality on decision support in the context of the e-marketplace", *Information & Management*, Vol. 52 No. 4, pp. 496-505.

Zineldin, M. (2000), "Beyond relationship marketing: technologicalship marketing", *Marketing Intelligence and Planning*, Vol. 18 No. 1, pp. 9-23.

Further reading

Dick, A.S. and Basu, K. (1994), "Customer loyalty: toward an integrated conceptual framework", *Journal of the Academy of Marketing Science*, Vol. 22 No. 2, pp. 99-113.

Love, E., Staton, M. and Rotman, J.D. (2016), "Loyalty as a matter of principle: the influence of standards of judgment on customer loyalty", *Marketing Letters*, Vol. 27 No. 4, pp. 661-674.

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