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CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

Joshua Kofi Doe

Ghana Institute of Journalism, Ghana

George Kofi Asamoah

Ghana Institute of Journalism, Ghana

ABSTRACT

As location-based banking continues to give way for online banking globally, this chapter examines whether e-tailing practices yield customer satisfaction. The chapter also examines how CRM influences e-tailing and whether e-tailing can serve as a medium through which CRM yields customer satisfaction. Data, conveniently collected from 681 bank customers, were used for this study and analysed with PLS-SEM. The study found that CRM practices lead to better customer retail buying experiences for banks. E-tailing, mostly perceived by customers as an innovation in the service delivery process of banks, improved the image perceptions of banks. The study suggests that as part of a digital channel configuration, banks must build customer relationship marketing technologies as a backbone.

INTRODUCTION

Location-based customer engagements continue to become less relevant, particularly in the current COVID-19 pandemic. Banks have to invest more in digital sales channels to drive performance significantly. This investment is necessary because it is clear

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CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

that digital sales channels have become key drivers of overall sales (Narayanaswamy & Heiens, 2021). Therefore, innovative strategic tools such as customer relationship management, electronic retailing (E-tailing) of banking services and loyal customer relationship management have become popular in most banks and insurance firms (Saxena, Gera, Nagdev & Fatta, 2021). Banks provide most of their retail services via E-tailing channels in order to reduce the cost associated with banking. For instance, customer relationship marketing is one of the banking services that has been moved to E-tailing channels as a self-service. What is unclear, however, is whether the shift of relationship management (relationship marketing activities) to E-tailing channels has been effective or not. No study has examined the connection between relationship marketing and E-tailing in the Ghanaian context. This study aims to close this knowledge gap. While CRM technologies aim to promote interpersonal relationships between banks and their customers, E-tailing technologies seek to promote self-service banking activities, which can invariably hinder interpersonal relationships. However, it is uncertain how this trend of relationship marketing activity is affected by E-tailing channels. Some studies (Amoako, Arthur, Bandoh & Katah, 2012; Anabila & Awunyo-Vitor, 2013; Asante & Achiaa, 2018; Klutse, 2016) have examined relationship marketing in Ghana. However, none of these studies has discussed the E-tailing channel or its effect on CRM. This creates a knowledge gap about the effect E-tailing technologies has on CRM technologies in the banking sector for academics as well as industry practitioners. Therefore, this study aims to close this knowledge gap by assessing the effect of E-tailing on relationship marketing and, therefore, customer satisfaction. In doing so, we examine whether E-tailing practices yield customer satisfaction. We also seek to examine how CRM influences E-tailing and whether E-tailing can serve as a medium through which CRM can yield customer satisfaction.

In general terms, this study provides an insight into how E-tailing affects relationship marketing. Specifically, it clarifies whether customers are more satisfied with the relational benefits of E-tailing channels or not. The output of this study highlights the need for organisations to invest resources in innovative E-tailing technologies.

LITERATURE REVIEW

1. Ghana's Banking Industry

Ghana's banking industry has seen some major reforms between the 1980s and 1990s with the aim of mitigating the country's ailing economy through the Structural Adjustment Programme (SAP) (Sowa, 2003; Nartey, 2013), Financial Sector

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

Adjustment Programme (FINSAP) and Financial Sector Strategic Plan (FINSSP). These reforms, together with the Banking Act (Amendment) 2007, Act 738, gave rise to three forms of banking licenses. These are the general banking license that includes universal and off-shore banking; class one banking license, which is limited to universal banking only; and class two banking license, which is limited to off-shore banking and has generated intense competition among banks in Ghana. By 2014, Ghana had 29 banks (15 foreign and 14 local banks) (Banking Survey, 2014), 140 rural and community banks, 66 savings and loans, 11 financial non-governmental organisations (FNGOs), 67 money lenders, 478 microfinance institutions (MFIs), and hundreds of co-operative susu collectors and credit unions scattered across the country (Bank of Ghana, 2016).

The 1999 Deregulation Law, which led to banking reforms in Ghana, generated intense competition among the banks (Adu-Asare et al., 2014). This resulted in the use of several innovative strategies that include relationship marketing, E-tailing, mobile banking, and other innovative technologies. Relationship marketing, for instance, has been offered through E-tailing channels. Banks' drive to bring banking closer to their customers has informed their consistent investment into technology geared towards safe and secure banking as well as improved customer experiences. Some of these technologies, such as electronic retailing technologies, are utilised to provide electronic services to their customers, including internet banking and mobile banking.

In 2017, the Bank of Ghana (BOG) undertook an audit of the country's whole financial sector. The audit found several irregularities in the sector. Among other things, the audit found that the capital held by some financial institutions were below the minimum requirement, some financial institutions took excessive risks without a risk management department to mitigate their risk exposure, others used depositors' money to fund non-profitable private ventures or businesses, while others lied about their actual financial situation to the Central Bank and other stakeholders. The report also found that most financial institutions had weak business governance systems, particularly with regard to board oversight, accountability, and internal controls. Most financial institutions consistently violated Bank of Ghana regulations, primarily prudential rules, and failed to carry out on-site assessment directives imposed by the Central Bank of Ghana (Affum, 2020). The minimum capital for the various kinds of financial institutions was also raised. Consequently, several institutions could not raise the new minimum capital. Subsequently, the Government of Ghana decided to clean up the financial sector. In the end, nine universal banks, 347 microfinance institutions, 39 microcredit institutions, 15 savings and loans companies, eight finance companies and two non-bank financial institutions had their licenses withdrawn (BoG, 2019).

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

Studying earlier reforms in the Ghanaian banking industry and its effects, Adu-Asare, Idun and Aboagye (2014) observed that the resultant competition in the banking sector has decreased the profitability of banks but motivates banks to serve their clients better through the adoption of innovative customer relationship-oriented business strategies. Such financial innovations allow firms to develop and implement new financial instruments leveraging technology and market knowledge to serve their clients (Adu-Asare Idun & Aboagye, 2014). Thus, success in Ghana's banking sector can be attributed to, among others, the advancement of information communication technology, globalisation, deregulation, legislation and intense competition. Competition in the sector results in the heightened need to promote innovative strategies to fight competition (Owusu-Frimpong, 2008; Blankson, Omar & Cheng, 2009; Nartey, 2013).

2. Conceptualisation of Relationship Marketing

The marketing mix had earlier been proposed as the foundation of marketing strategy (Grönroos, 2007). This approach to marketing strategy proposed a transactional marketing view of customer acquisition rather than customer maintenance. However, this approach has been criticised in the service marketing literature (Ashnai, Smirnova, Henneberg & Naudé, 2019). The relationship marketing approach subsequently became a more appealing approach after Berry's (1995) study, which brought back the notion into the limelight. Berry (1995) posited that customer retention is a better or more beneficial approach to marketing strategy than customer acquisition, although customer acquisition is important at the beginning of a relationship.

Furthermore, Berry (1995) and Dwyer et al. (1987) proposed a model that depicts relationship marketing as a process that begins with the establishment of benefits-triggered relationships, trust-building through ongoing communication and familiarity, interdependence, loyalty and commitment. Dwyer et al. (1987) and Zhang et al. (2016) argued that a relationship might end at its initial stage. However, trust and commitment from both parties of the business-to-customer relationship may reduce customer churn by increasing customer happiness and friendship. Trust and commitment in relationship marketing are the foundations of Dwyer et al.'s (1987) approach. Morgan and Hunt (1994) similarly proposed a model where they contended that trust and commitment are essential for healthy relationships, fostering reciprocal collaboration among partners and supporting profitable long-term outcomes of the relationship rather than short-term advantages.

*CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction***3. Theoretical Base of Relationship Marketing***a. Trust – Commitment Theory*

The Trust-Commitment Theory (Morgan & Hunt, 1994) notes that commitment and trust are essential to building successful relationships, rather than the ability to condition others into a relationship as suggested by the political economy perspective of maintaining relationships. Per the trust-commitment theory, investments in trust and commitment encourage companies to consistently invest in relationships, pursue long-term advantages and prevent appealing short-term aims.

b. The Social Exchange Theory

The Social Exchange Theory (Homans, 1958) suggests that human relationships are constructed using a cost-benefit analysis. The theory suggests a link between relationship marketing activity, perceived value to customer, customer satisfaction and, subsequently, customer loyalty. It further contends that as individuals give, they expect to get more in return; and the more they receive from others, the more they are pressurised to also give back to others. Therefore, the theory demonstrates how customers will maintain their relationship with a firm if the relationship is value rewarding.

c. Theory of Technology Adoption

Theories that seek to explain consumer adoption of E-tailing (innovation) includes the Theory of Reasoned Action (Fishbein & Ajzen, 1975), Theory of Planned Behaviour (Ajzen, 1991), Value-Based Adoption Model (Dodds & Monroe, 1985), Motivational Model (Davis, Bagozzi & Warshaw, 1992), Decomposed Theory of Planned Behaviour (Taylor & Todd, 1995), the Integrated Model of Technology Acceptance (Venkatesh, Speier & Morris, 2002), the Technology Adoption Model (Venkatesh & Bala, 2008), and the Unified Theory of Acceptance and Use of Technology (Venkatesh, Thong & Xu, 2012). A major assertion of all these theories and models is that perceived ease of use and perceived usefulness, among other factors, will lead to intention to adopt and use technology. Therefore, customers' perception that E-tailing is useful and easy to use will lead to the adoption of E-tailing technologies introduced by banks.

*CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction***4. Electronic Retailing (E-tailing)**

Retailing is the sale of goods in small quantities, usually directly to consumers (McGoldrick, 2012; Hagberg, Sundström & Nicklas, 2016). Digitalisation (Alba et al., 1997; Hagberg et al., 2016) is an important ongoing transformation in contemporary society and business operations. Transformation is essential for the retail industry, which impacts and is impacted by development. This promotes the digital economy (Sturiale & Scuderi, 2016). In the past, retailing had been delivered completely through physical stores and locations. However, retailers now offer consumers different digital products and services using digital technologies. It is also influenced by the new types of consumption linked to digital technology advancement.

While digitalisation has an extensive history with retailing (Salkin, 1964; Watson, 2011), digital transformation is growing rapidly. Currently, purchasing, selling, transmitting or trading of products, services or information using the Internet (Turban et al., 2006; Hagberg et al., 2016) have taken over other forms of business activities. This promotes the digital economy (Sturiale & Scuderi, 2016). This phenomenon, mostly referred to as Electronic Commerce (E-commerce) (Ducombe & Heeks, 2005; Chaffey, Hemphill & Edmundson-Bird, 2019), employs new and emerging Information and Communication Technologies (ICTs) to transact business. E-commerce may comprise selling (retailing) directly from Businesses to Consumers (B2C E-commerce) (also referred to as E-tailing), selling from a Business to others Businesses (B2B E-commerce), and selling from Business to Government (B2G E-commerce). Factors that drive digital change in business include competition (that is, competing efficiently in both local and international markets), globalisation of the production and supply of goods and services, and the 'me too' attitude that is the enticement of the newest technological devices or gadgets (Ducombe & Heeks, 2005; Chaffey et al., 2019), among others. At the same time, anxieties experienced by users of these E-tailing and other digital channels include financial, social and convenience risks (Nawi, Mamun, Nasir & Hamsani, 2021). Turban et al. (2006) describe E-tailing as retailing performed online. A broader definition of E-tailing provided by Wang, Head and Archer (2002) is that it is "the selling of goods and services to the consumer market via the internet". A comprehensive E-tailing system provides easy access, helps to resolve time, location and language differences in business, boosts the promotion of products and services through direct interactions with customers (promotional changes), produces new distribution channels for products (place changes), saves cost in communication and distribution of digitised products, and reduces the delivery time of some purchased digitised products (Block & Segev, 1996; Chaffey et al., 2019). In addition, E-tailing enhances customer service by providing detailed information about products and online help desks, supports marketing intelligence in obtaining data to assess alternatives and supports decision-

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

making. Saxena et al. (2021) reported how consumers/customers had preference for online channel when they engage is what seems to be mostly purchases of services and physical channels for other categories of purchases such as product purchases. Using Guttman, Moukas and Maes's (1998) stages of product and merchant brokering, electronic commerce directly impacts the following aspects of retailing.

- a. **Purchasing** - E-tailing enables automated purchasing through intelligence and valuable information focused on an individual's computer system. The availability of payment options or delivery options might affect product purchases. Direct selling provides the opportunity for a disintermediation utility.
- b. **Design** - The internet can empower strategies like quality function deployment (QFD) and online data gathering and mining to enhance design quality; thus, improving competition in the international market. Product design engineers located in different places globally can likewise share information through the internet. The ease of sharing information can decrease design time, enhance the precision of product design and facilitate the creation of products that have the ability to gain a big market share.
- c. **Production** - Many digitally powered supply chain processes and Enterprise Resource Planning (ERP) protocols are accessible to organisations. Outsourcing of service functions has, subsequently, become popular due to available software. This provides organisations with the choice of acquiring many of the skills needed to operate business-to-consumer E-tailing.
- d. **Sales and Distribution** – E-tailing has become part of mainstream marketing, and retailers understand its major role in customer service. Alternative web-based, interactive cable and satellite-based teleshopping are presently said to have the potential of altering the landscape of modern retailing (Sarkis, Meade & Talluri, 2004; Chaffey et al., 2019). Hence, the competition between retailers is shaped by new technologies that offer new channels utilised by organisations to reach consumers globally, including previously difficult to penetrate markets (Gunasekarana, Marri, McGaughey & Nebhwani, 2002; Chaffey et al., 2019).
- e. **Warehousing** – Technologies such as Electronic Data Interchange (EDI) helps firms to minimise warehousing costs by enabling minimal inventory to be placed in any particular warehousing unit (Unitt & Jones 1999). This leads to reduced costs of storage, insurance, warehousing and security. EDI, thus, results in small stock storage by all stakeholders, which decreases supply chain operation costs (Chaffey et al., 2019).
- f. **Supplier Development** - E-tailing systems empower retailers by providing them with access to a huge variety of products; and allows many vendors to reach customers, connect and transact business with a wide range of trading partners.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

- Likewise, retailers are able to collaborate and transact business internationally because of the removal or lessening of the barriers linked to time and distance.
- g. ***Packaging and Order Management*** - Product marketing has seen modifications owing to the advancement of e-commerce technologies. Product packaging as a functional communication tool has become less important (Sarkis et al., 2004; Chaffey et al., 2019). E-commerce encourages producers and manufacturers to decrease the size and weight of product packaging, which contributes to the shipping costs of products purchased online. Companies have found it beneficial to decrease the number of materials utilised to package their products (Sarkis et al., 2004; Chaffey et al., 2019).

E-tailing can be described as an innovation. In this regard, innovation is the application of new or considerably better artefact, procedure, marketing approach or organisational method by a company in its operations or external interactions (OECD, 2005). Thus, there are diverse kinds of innovation. These includes innovations on products, process, marketing, or even the organisational operational structures itself (Schmidt & Rammer, 2006). Digital innovation (E-tailing) is an innovation powered by digital technologies leading to the development of new kinds of digitalisation (Yoo et al., 2010). Digital innovation is generally viewed as disruptive (Christensen & Raynor, 2003; Lyytinen & Rose, 2003). It is disruptive because it generates new market structures and customer value thereby disrupting current industry structures and overthrowing recognised market leaders, products and services, as well as forming partnerships with new businesses (Christensen & Raynor, 2003). In effect, the adoption of an innovation (E-tailing) is a competition game-changer in the marketplace.

Theories or models that seek to explain firm-level adoption and usage of E-tailing (innovation) includes the Technology, Organisation and Environment Framework (TOE) (Tornatzky, Fleischer & Chakrabarti, 1990) and the Firm Technology Adoption Model (F-TAM) (Doe et al., 2017).

5. Consumer Behaviour and E-tailing

In 1972, consumer shopping behaviour gained attention in the marketing literature due to Tauber's (1972) study, which sought to find answers to the question "Why do people shop?". According to existing marketing literature, several factors influence shoppers' purchase decisions, such as individual and psychological characteristics, cultural, social and environmental variables and marketing strategies. Tauber (1972) identified three distinct activities that constitute consumer behaviour, namely shopping, buying and consuming.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

Contemporary models based on the cognitive views of consumer behaviour posit that consumer buying behaviour involves problem recognition, information search for possible alternatives, assessment of alternatives, purchase action and post-purchase assessment (Nguyen, de Leeuw & Dullaert, 2018). For shopping activity (information search and evaluation of alternatives), a customer could go online and shop for a wide range of goods and services that are far cheaper than buying from a physical store. Hence, the internet and E-tailing have the potential of completely replacing physical stores, rendering physical store locations redundant (Danquah & lin Dong, 2018). For digitised products, however, the whole process can be completed online if payment options are made available online and are convenient (Wang & Head, 2007; Danquah & lin Dong, 2018).

6. Customer Relationship Marketing/ Management (CRM)

Customer relationship marketing (management) has become the focus of most businesses or organisations. This is because the general marketing orientation has been viewed as insufficient for keeping retail customers and making them loyal. The words “marketing” and “management” are usually interchangeably used because marketing is a management function (Kotler & Keller, 2006). Picton and Broderick (2005) posit that CRM emphasises the significance of the relationship organisations develop with their customers. It comprises strategic and tactical management activities that focus on establishing positive communication and lasting customer relationships. Similarly, Berkowitz (2006) postulates that customer relationship management (CRM) is “the organization’s attempt to develop a long-term, cost-effective link with the customer for the benefit of both the customer and the organization”. CRM emphasises an appreciation of the configuration of the interaction between the customer and the retailer, and managing this interaction effectively (Peel, 2002). This interaction comprises financial considerations between retailers and customers as well as communication considerations (Peel, 2002) that ensure beneficial long-term relationships. Most organisations focus on CRM as they move away from customer acquisition orientation to customer retention orientation. In this process, churn reduction strategies dictate a necessity for the best CRM procedures available.

Furthermore, customer relationship management is believed to go beyond the mere management of customers and observing the behaviour or attitude exhibited (Amoako et al., 2012; Quaye, Mensah & Amoah-Mensah, 2018). This is because CRM can potentially change a customer-firm relationship, boost revenue in the long term and help to understand customers better in order to determine those customers to stick with and those who can be lost. CRM allows businesses to deliver real-time customer care by making efficient use of customer information (Kotler & Keller, 2006). Hence, organisations have to assess the needs of their customers, and build

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

relationships with both their present and prospective customers by meeting these needs (Quaye, Mensah & Amoah-Mensah, 2018).

Studies (Lemon, Rust & Zeithaml, 2001) indicate that CRM benefits vary from industry to industry. The difference is because the processes and technologies linked to CRM are built for specific industry structures. On the contrary, the outcomes of a cross-cultural, multi-industry study of CRM conducted by Thomas and Kumar (2004) suggest that the benefits of CRM in one industry are largely relevant across industries. Later findings on their assertion link it to three elements: value creation, relationship nurturing and brand equity improvement (Richard & Jones, 2008; Amegavie, Mensah & Kwame, 2019). CRM is associated with a list of desired benefits that are linked to the creation of customer equity. In this regard, seven core benefits have been known to serve as the value drivers of CRM. These values are enhanced capacity to focus on profitable customers; integrated offerings across channels; enhanced sales force efficiency and effectiveness; individualised marketing content; customised products and services; enhanced customer service efficiency and effectiveness; and enhanced pricing. Swift (2001) categorised these CRM benefits under the low cost of acquiring customers; not necessary to recruit a lot of customers to maintain a fixed volume of business; decreased sale costs; greater customer profitability; and improved customer retention and loyalty.

7. Customer satisfaction

The business literature offers numerous definitions of customer satisfaction. Nevertheless, customer satisfaction can be described as the customer fulfilment attitude. This means that a product or service gratifies the customer's consumption-related fulfilment expectation (Oliver, 1997). Halstead, Hartman and Schmidt (1994) view customer satisfaction as an emotional response to the tri-component process associated with a specific transaction process. The three components of satisfaction are cognitive, affective and conative. The outcome of this tri-component purchase decision making, however, results in a cognitive satisfaction that leads to repurchase intention, or a cognitive dissatisfaction, and subsequent rejection of the product (Shiffman & Kanuk, 2010; Tweneboah-Koduah & Farley, 2016). The cognitive component has been asserted in various consumer satisfaction models as an antecedent to loyalty. This is supported by Kotler (1994), who opines that the key to customer retention and repurchase intention (Hennig-Thurau & Klee, 1997; Tweneboah-Koduah & Farley, 2016) is customer satisfaction. As a result, the initial patronage or usage experience will either lead to repurchase behaviour or discontinued patronage.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

Customer satisfaction has been discussed based on two viewpoints, the transaction-specific viewpoint and the cumulative experience viewpoint (Boulding et al., 1993; Tweneboah-Koduah & Farley, 2016). The transaction-specific perspective measures satisfaction in relation to a particular transaction in a specific situation. The cumulative perspective measures customer satisfaction per a customer's complete assessment of their experiences with a particular service provider like a bank (Yu, Jacobs, Salisbury & Enns, 2013). This cumulative satisfaction was hinted at by Oliva, Oliver and MacMillan (1992). They opine that it leads to positive brand loyalty. Evidence shows that loyalty is significantly associated with volitional user behaviour (Khalifa & Liu, 2007), which leads researchers to emphasise the importance of understanding loyalty behaviour as a consequence of user satisfaction (Bhattacharjee & Lin, 2015; Lin, Wu, Hsu & Chou, 2012).

8. Relationship Marketing, E-tailing and Customer Satisfaction

Some studies have found causal links between some constructs being investigated in this study. In Asante and Achiaa's (2018) study of E-tailing, they found that trust, attitude, perceived risk and internet knowledge were significant variables that attracted customers to E-tailing. In addition, they found that customer satisfaction in E-tailing can be measured with trust, internet knowledge, perceived risk and attitude. With regard to how these factors associated with innovation impact customers of the banking industry, Saleem and Rashid (2011) reported that as higher the levels of technological innovation is associated with a bank product consumption, higher level of satisfaction is perceived by the customer. Therefore, E-tailing leads to higher satisfaction and, consequently, an increased tendency to repurchase. In support of these views, this study hypothesises that

Hypothesis One (H1): E-Tailing Experience Leads To Higher Customer Satisfaction

Amoako et al. (2012) confirm that CRM impacts customer satisfaction. Even though Amoako et al. (2012) did not cover E-tailing, they provided a pointer to the possible impact of E-tailing innovation on the connection between CRM and customer satisfaction and, subsequently, loyalty. In a related study of CRM effects on customer service experience in the retail industry, O'Reilly and Paper (2012) discovered that CRM affects perceived customer experiences. In light of these views, this study hypothesises that

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction***Hypothesis Two (H2): CRM Leads To Higher Levels Of E-Tailing Experience***

Bojei, Julian, Wel and Ahmed (2013) focused on major relationship marketing tools utilised by customer service, loyalty/reward programmes, brand/store communities, personalisation and customisation, and their connection to customer retention. From the implications of their findings, customer satisfaction is confirmed as an antecedent of customer loyalty. Moreover, CRM is expected to lead to high total customer satisfaction (Bojei et al., 2013). Other authors, such as Anabila and Awunyo-Vitor (2013), affirm that there is a substantial association between CRM practices and customer loyalty. Thus, if customer satisfaction is discovered to be an antecedent to customer loyalty, then customer satisfaction could very possibly mediate the relation between CRM and customer loyalty. Hence, this study hypothesises that

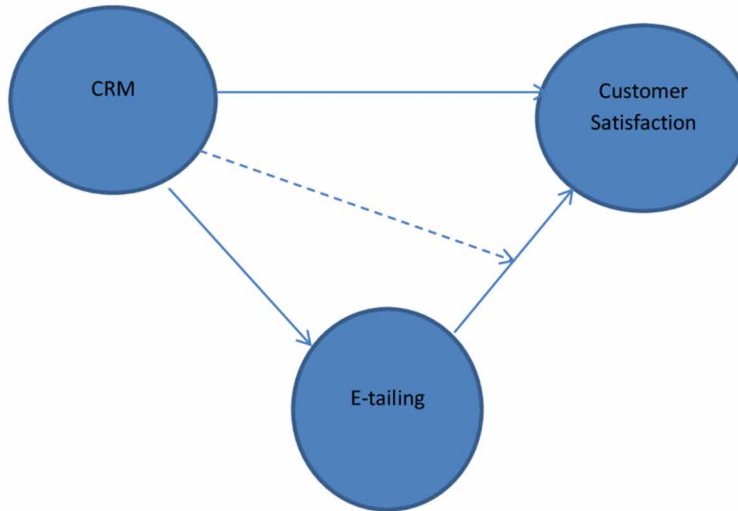
Hypothesis Three (H3): CRM Leads To High Customer Satisfaction

Studies of adoption of technological innovations, such as Venkatesh et al. (2002), Venkatesh and Bala (2008) and Venkatesh et al. (2012), posit that Perceived Usefulness and Perceived Ease of Use are very important antecedents of adoption. Perceived usefulness is defined as outcome expectancy (Doe et al., 2017). Thus, where the use of innovation (CRM) is the desired factor, consumers are likely to adopt the innovation (E-tailing). Meanwhile, the relational component of transactions, including E-tailing innovation transactions, is expected to enhance the transaction experience (Hassan, Nawaz, Lashari & Zafar, 2015). The relational component of the E-tailing innovation is what CRM ensures. Therefore, if the relational component of E-tailing powered by CRM is enhanced, it should lead to higher customer satisfaction. Thus, in this study, it is expected that CRM will moderate the link between E-tailing and customer satisfaction. Consequently, this study hypothesises that

Hypothesis Four (H4): CRM Moderates The Relationship Between E-Tailing Experience And Customer Satisfaction.

These proposed hypotheses are summarised in a conceptual model in Figure.1.

In the conceptual model (Figure 1), this study proposes that customer satisfaction (endogenous variable) is the ultimate effect created by firms and is desired by customers. Banks have introduced E-tailing as an innovation that enhances speed, ease of use and convenient banking. This is supported by CRM back-office technologies. In the framework, this study expects that CRM will positively influence customer E-tailing experiences and lead to customer satisfaction. It is also expected that E-tailing will positively influence customer satisfaction with the firm as a whole.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction*Figure 1. Conceptual Framework*

Finally, it is expected that CRM will influence the relationship between E-tailing and customer satisfaction.

RESEARCH METHODS**1. Data Collection**

Data was collected from 900 customers of banks in Accra through a questionnaire using the convenient sampling method. Six hundred eighty-one (681) useable responses (76%) were used for analysis. Convenient sampling is used in this study because the sample frame was not accessible; respondents were scattered at different locations, making it nearly impossible for the researcher to use the random sampling technique (Mitchell & Education, 2018). SPSS and structural equations modelling (SEM) in SmartPLS software (Hair et al., 2016) were utilised for the analysis of data.

2. Reliability and Validity of Data Instrument**a. Reliability**

The need for a reliable instrument and statistical means of computing it has been a critical issue in quantitative studies for a long time (Nunnally, 1978). The reliability

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

of an instrument requires that it is able to measure attributes or attitudes regularly and dependably (Straits & Singleton, 2011; Leeux et al., 2008). Reliability is the extent to which measurements can be repeated under divergent settings. Common methods used to evaluate reliability in behavioural research include test-retest reliability measure, alternative forms reliability measure, split-halves reliability measure, inter-rater reliability and internal consistency measures. These methods deal with the three key issues in reliability testing of equivalence, stability over time, and internal consistency (Drost, 2011). The internal consistency reliability method was employed in this study.

Internal consistency entails the reliability of the test elements or factors. It measures consistency within an instrument and queries how well a unit of items measure a specific attribute within the test. Internal consistency is achieved when estimates of reliability are dependent on the average intercorrelations in all items of the instrument. The most common technique for evaluating internal consistency in the behavioural sciences is using the coefficient alpha, popularly referred to as Cronbach's alpha (Cronbach, 1951). If the Cronbach's alpha is extremely low, then the test is too short or the items do not have much in common. Generally, a higher coefficient than or equivalent to 0.7 is deemed adequate and a great indication of construct reliability (Nunnally, 1978). Nonetheless, values less than 0.7 might be accepted for exploratory studies. Hair et al. (1998) suggest 0.6 as the lowest acceptable value. In this study, all variables were above the recommended limit of 0.7 Cronbach alpha values.

b. Validity

The validity is the congruence of fit, also referred to as goodness of fit (Straits & Singleton, 2011), among the instrument items that attempt to measure a construct. Validity checks whether the functional definition of a construct, and items under a construct scale, measure the construct correctly (Combach & Meehl, 1995). In this light, an inaccurate instrument is usually invalid (Davis, 1971). The four kinds of validity that should be considered by researchers are: statistical conclusion validity, internal validity, construct validity and external validity (Drost, 2011).

- i. **Construct Validity** - Construct validity addresses how accurately a notion, idea, or behaviour was interpreted or transformed into an instrument to measure functional and operational reality (Trochim, 2006). To verify construct validity, accumulative confirmation is performed in two categories of validity: translation validity (face validity and content validity) and criterion validity (predictive validity and convergent validity; convergent and discriminant validity) (Trochim, 2006). Translation validity and external validity were utilised in this study.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

- ii. **Translation Validity** - It addresses whether operationalisation reveals the precise meaning of the construct being measured, utilising the subjective judgment of face validity and assessing content validity.
- iii. **Face Validity**- It is a subjective judgment of the operationalisation of a construct, which is done by mentally judging whether the question items can measure the construct.
- iv. **Content Validity**- Most concepts in social sciences do not have an agreed theoretical definition; therefore, researchers need to provide a theoretical definition (of concepts) recognised by their peers and validated by indicators that thoroughly cover its dimensions (Bollen, 1989). This approach was followed in this study to ensure content validity. The data instrument used in this study comprises items adopted from other studies with slight changes to fit the context of this study (Leeux et al., 2008).
- v. **External Validity** -External validity examines the ability to generalise the findings of a study to other persons, settings and times. A generalisation can be made to a target population or across populations (Cook & Campbell, 1979).

3. Administration of Instruments

The questionnaire was given to respondents at banking halls. The researcher spent time explaining the questions to participants carefully after they had consented to take part in the study. The goal was to make it easier for them to understand the purpose of the research and assure them that any information provided would be utilised exclusively for academic purposes. This was to ensure that participants provided their opinions without fear. To obtain valid and reliable data, the researcher made sure that all questions were well-framed, reducing possible errors.

4. Analysis of Data

The following stages were followed to analyse the data gathered. The data was reviewed to identify and correct mistakes and omissions that were probably present to ensure the consistency of the instrument.

The data was analysed quantitatively utilising both descriptive statistics in SPSS and Structural Equations Modelling (SEM) in SmartPLS (Hair et al., 2016). This is essential for identifying and establishing the predictability and causal associations among the main variables (or constructs) examined in the study. The outcomes of the analysis are given in the next sections.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

5. Ethical Considerations

Ethical considerations constitute a major aspect of research. Following Bryman and Bell's (2007) recommendations of the key principles related to ethical considerations in research, the following were ensured in this study.

The participants of the study were not harmed in any way whatsoever. The items on the questionnaire did not contain any foul, discriminatory or other disrespectful language, while the dignity of participants was prioritised and respected (Saunders, Lewis & Thornhill, 2016).

Informed consent was attained from all participants before data collection. The participation of respondents in the study was voluntary. Moreover, participants were told they may opt out of the research at any time, if they wished (Saunders et al., 2016). The privacy of participants was ensured because the questionnaire did not ask them to provide their names. Likewise, the confidentiality of data was ensured by ensuring that data collected is used only for its intended purpose and avoid (Saunders et al., 2016).

RESULTS AND DISCUSSIONS

The demographic details of respondents are shown in Appendix A (See Table 1 of the Appendix).

1. Relationship between CRM, E-tailing and Customer Satisfaction (SEM Analysis)

The study received 681 responses out of the 900 that was targeted. Due to the high response rate (76%), testing for non-response bias was not performed (Leden et al., 2011). Exploratory factor analysis (EFA) was performed with the extraction of one factor, and the results demonstrated that the factor accounted for 26.7% (See Appendix A figure 1) of variance (less than 50%). This indicates the nonexistence of common method variance bias (Podsakoff et al., 2003). Partial least squares (PLS) in SmartPLS Release: 3.2.7 (Ringle et al., 2015) was used to analyse the data. PLS is not influenced by sample size nor data distribution (Hair et al., 2011). The significance of all paths was measured utilising bootstrap t-values (5000 sub-samples) (Tortosa et al., 2009), a procedure available in PLS.

*CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction***2. Measurement model analysis**

Table 1 shows the findings of reliability and convergent validity after using PLS-SEM. Cronbach's coefficient alpha, composite reliability, and average variance estimations obtained satisfy the minimum requirements of 0.7, 0.7, and 0.5, as recommended by Hair et al. (2016) for exploratory investigations. Likewise, all remaining item loadings following purification of the model were statistically significant utilising bootstrap t-values (5000 sub-samples). The results show that convergent validity has been satisfactorily fulfilled.

In Table 2, the square root of the average variance obtained for all three constructs was higher than the inter-construct associations between them (Fornell & Larcker, 1981; Barclay et al., 1995). Furthermore, the heterotrait-monotrait ratio (HTMT) of associations performed showed that all correlations were below 0.85; therefore, the three-construct model shows discriminant validity. Hence, discriminant validity has been met. See Table 3 for details.

Table 1. Reliability and Convergent Validity

Codes	Item	Loading	Bootstrap t-values	α	C.R	AVE
CRM	CRM1	0.838	32.552	0.846	0.897	0.685
	CRM2	0.889	62.950			
	CRM3	0.789	20.190			
	CRM4	0.791	29.549			
E-tailing	ER1	0.741	0.730	0.713	0.812	0.524
	ER2	0.809	0.792			
	ER3	0.781	0.767			
	ER5	0.532	0.503			
Customer Satisfaction	CS1	0.819	28.101	0.808	0.872	0.631
	CS2	0.841	38.541			
	CS3	0.799	22.312			
	CS4	0.714	13.397			
Note: All t-values are significant at $p < 0.01$						

Furthermore, some variables scored an initial loading of Cronbach's alpha values below 0.6 (see Appendix A figure 1). Specifically, three variables under CRM and another three under E-tailing scored between 0.295 and 0.551. All items with loadings less than the minimum threshold (that is less than the minimum threshold

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction*Table 2. Discriminant Validity (Square root of AVEs in bold diagonal)*

Factor	Fornell-Larcker Criterion			Heterotrait-Monotrait Ratio (HTMT)		
	1	2	3	1	2	3
1. CRM	0.828					
2. E-tailing	0.221	0.724		0.276		
3. Customer Satisfaction	0.520	0.250	0.795	0.612	0.291	

of 0.6) were removed (Hair et al., 2016), after which the model was re-tested to get satisfactory loadings. Hence, based on Hair et al. (2016) and Chin's (2010) recommendations, convergence validity has been attained.

3. Structural model

An assessment of the predictive accuracy (R^2) of the structural model demonstrated that an explained variance of about 5% and 29% in E-tailing and customer satisfaction, respectively, both of which are satisfactory. Q^2 – values of 0.02 and 0.164 were gained for E-tailing and customer satisfaction; both values are higher than 0, demonstrating predictive relevance (Chin, 2010). Lastly, the effect sizes (f^2) obtained for the exogenous variables indicated that CRM had a small effect size on E-tailing but a medium effect size on customer satisfaction. The outcomes of predictive accuracy (R^2), predictive relevance (Q^2) test and effect sizes (f^2) are given in Table 3.

Table 3. Predictive Accuracy (R^2), Predictive Relevance (Q^2) and Effect Sizes (f^2)

Constructs	R^2	Q^2	f^2 (E-tailing)	f^2 (Customer Satisfaction)
CRM	–	–	0.05(Small)	0.32(Medium)
E-tailing	0.050	0.021		0.03(Small)
Customer Satisfaction	0.290	0.164	–	–

4. Testing of Study Hypotheses

Results of the structural model are shown in Table 4, as well as Figure 1. The data indicated that all the paths that were tested in the model were statistically significant. Therefore data from this study context supports hypotheses **H1**, **H2** and **H3**. Specifically, a significantly positive connection exists between CRM and customer satisfaction ($p < 0.01$); and a significantly positive connection exists between CRM

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

and E-tailing ($p < 0.01$). Finally, a positive and significant relationship exists between E-tailing and customer satisfaction ($p < 0.05$).

Figure 2. Structural paths showing regression weights and t-values

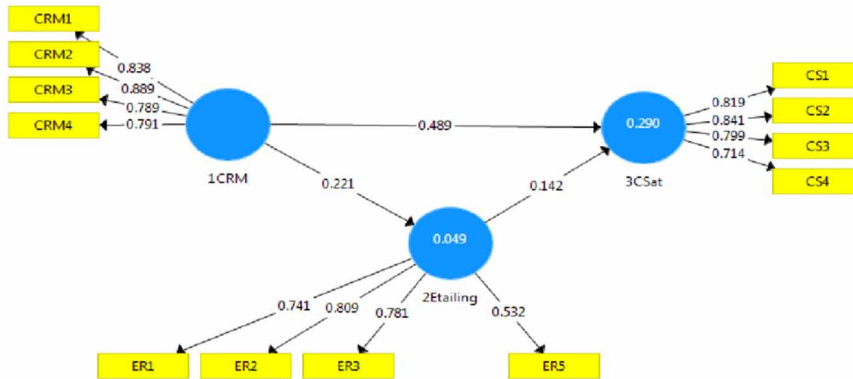


Table 4. Structural path results

Hypothesis	Structural path	Path coefficient	t-value (Bootstrap)	Hypothesis results
H1	CRM Customer Satisfaction	0.489**	10.127	Supported
H2	CRM E-tailing	0.221**	3.517	Supported
H3	E-tailing Customer Satisfaction	0.142*	2.072	Supported

Note: **Significant at $p < 0.01$; *Significant at $p < 0.05$

5. Moderating Effect of CRM

This study tests the possible moderation effect CRM has on the connection between E-tailing and customer satisfaction, as depicted in Table 5. The R-square increased from an initial 0.271 (Model 1) to 0.290 (Model 2) (a moderated model involving both CRM and E-tailing). However, the inclusion of the interaction effect between CRM and E-tailing on customer satisfaction did not increase the R-square further, as shown in Table 5. Specifically, the interaction between CRM and E-tailing did not significantly influence customer satisfaction ($p > 0.05$). Consequently, hypothesis **H4** is not supported in this context.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction*Table 5. Moderation Test Results for CRM*

Rival Models	Direct Effects: Model 1	Direct Effects: Model 2	Moderated Effects: Model 3
CRM Customer Satisfaction	0.521**	0.489**	0.102**
E-tailing Customer Satisfaction		0.142*	0.144***
CRM*E-tailing Customer Satisfaction			0.01
R^2	0.271	0.290	0.290
ΔR^2		0.019	0
Note: **t-values are significant at $p < 0.01$; *t-values are significant at $p < 0.05$			

SUMMARY OF FINDINGS AND DISCUSSIONS

The study discovered a positive and significant association between CRM and customer satisfaction, demonstrating that customer relationship marketing results in customer satisfaction. This finding partly supports those of Amoako et al. (2012). The tri-component benefit of CRM, relationship, value and brand equity (Richard & Jones, 2008) appears to have worked in the present context. Saleem and Rashid (2011) suggested that as service organisation user higher levels of technological innovation, higher levels of customer satisfaction are perceived by the customer. This assertion is supported by the findings in the present context. Thus, higher customer satisfaction is the outcome of an enhanced CRM, which will eventually lead to customer loyalty, and subsequently, increased profitability.

The study also found a positive and significant association between CRM and E-tailing. This means that CRM practices lead to better customer retail buying experiences and perceptions of banks. This finding supports the report of O'Reilly and Paper (2012), who suggested that CRM affects perceived customer experience, which in this context is the E-tailing experience. This finding also supports the view of Hassan et al. (2015), asserting that the relational component of transactions, in this case CRM practices, enhances the transaction experience (E-tailing innovation transactions).

Finally, a significantly positive association exists between E-tailing and customer satisfaction. This implies that E-tailing, mostly perceived by customers as an innovation in the service delivery process of banks, also leads to customer satisfaction. According to Anabila and Awunyo-Vitor (2013), there is a strong correlation between CRM practices and customer loyalty, mainly precipitated by customer satisfaction. Bojei et al. (2013) have used key relationship marketing tools of customer service, loyalty/rewards programmes, brand/store community, personalisation and customisation to

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

show how CRM leads to customer retention through customer satisfaction. CRM is also expected to lead to higher total customer satisfaction (Bojei et al., 2013). The findings of this study support these assertions and affirm that CRM leads to greater customer satisfaction. Therefore, in order to achieve greater loyalty, innovative CRM practices can be very beneficial.

This study tested the possible moderation effect CRM has on the connection between E-tailing and customer satisfaction. However, the data indicated that CRM has no moderating effect on E-tailing leading to customer satisfaction. Therefore, CRM practices will not necessarily improve bank customers' perceived level of satisfaction in relation to E-tailing practices. Thus, the relational components (Hassan et al., 2015) of E-tailing activated by CRM practices neither enhances nor diminishes customer satisfaction. It appears in this context that customers focus on the deliverables of E-tailing transactions. This result raises several questions that are discussed under recommendations.

The data showed that CRM impacts E-tailing, while E-tailing impacts customer satisfaction. This suggests, therefore, that E-tailing could be a mediator between CRM and customer satisfaction. Hence, while CRM leads directly to customer satisfaction, it can also influence other transactional practices, such as E-tailing, to indirectly lead to customer satisfaction.

CONTRIBUTION TO THEORY AND PRACTICE

Theoretically, three of the findings support those of earlier studies. The outcome of the expected moderating effect CRM has on how E-tailing influences customer satisfaction is contrary to reports of other studies such as Hassan et al. (2015). Even though E-tailing activities are reinforced by CRM processes and activities, it appears that its effect is not apparent with regard to E-tailing activities from customers' perception. Perhaps the contextual argument raised by researchers like Data (2011) may apply here. The moderating effect implied by researchers like Hassan et al. (2015) does not apply in the present context. Several questions arise as a result of this particular finding. Could this outcome simply be because of the sample size, the context of the study or perhaps the inability of customers to appreciate the back-office role of CRM in their E-tailing experiences?

For industry practitioners, the findings of this study highlight some useful insight for practice. The findings emphasise the need to strengthen CRM practices to ensure greater customer satisfaction. The findings also demonstrate that apart from CRM, other transactional innovations such as E-tailing can also be used by marketing organisations to achieve customer loyalty. Therefore, organisations should not only focus on CRM.

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study had some limitations. It used a sample of 681 respondents who are customers of different banks in Accra. Further studies are, therefore, recommended across banks in the country. The study was conducted within the banking sector; however, the financial sector includes other industries such as microfinance, savings and loans and insurance companies. Whether these findings will be similar in other service industries in the financial sector is worth examining. Further studies are recommended in other industries as well such as the manufacturing and academic sectors.

The model used in this study appears to be limited due to the short time used in conducting the whole study. For instance, customer satisfaction is expected to lead to customer loyalty, an assertion that has been reported by several researchers in Ghana and other contexts; therefore, it would be interesting to examine how CRM, E-tailing and customer satisfaction all influence customer loyalty and other brand equity variables like brand associations, and brand values, among others. This study, however, did not examine such relationships. Further studies that utilise an extended model are recommended.

In the present context, the moderating effect implied by researchers like Hassan et al. (2015) was not supported by the data. Contextual issues such as a possible inability of customers to appreciate the back-office role of CRM in their E-tailing experiences could explain why this was the case. Further study of the topic with a broader sample size is recommended to explain the negative results obtained. A possible mediation effect is observed between CRM and customer satisfaction. This needs further investigation to ascertain whether this mediation effect is a partial or full mediation. As suggested earlier, further studies could add more construct variables to the model and test for further moderation and mediation effects.

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CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction**APPENDIX 1***Table 6. Background Information of Respondents*

Variable	Frequency	Percent
Gender		
Male	456	67
Female	225	33
Age		
15 -25	69	10.1
26 – 35	501	73.6
36 – 45	96	14.1
46 – 55	15	2.2
Educational Level		
Basic certificate	111	16.3
Undergraduate	441	64.8
Professional cert	105	15.4
Graduate	21	3.1
M.A./MSc	3	0.4
Marital Status		
Single	543	79.7
Married	138	20.3
Income		
Below GHc1500	522	76.7
Ghc 1501 -3000	111	16.3
Ghc 3001-4,500	21	3.1
4,500 - 6,000	3	0.4
Above Ghc 6,000	3	0.4
NR	21	3.1
Total	681	100

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction*Table 7. Total Variance Explained (Following EFA with the extraction of only one factor)*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.800	26.664	26.664	4.800	26.664	26.664
2	2.892	16.066	42.730			
3	1.683	9.347	52.077			
4	1.251	6.952	59.030			
5	.998	5.547	64.576			
6	.831	4.618	69.194			
7	.792	4.400	73.594			
8	.694	3.858	77.452			
9	.573	3.183	80.635			
10	.513	2.852	83.487			
11	.498	2.769	86.256			
12	.443	2.460	88.716			
13	.431	2.392	91.108			
14	.417	2.315	93.423			
15	.339	1.884	95.307			
16	.333	1.850	97.157			
17	.295	1.640	98.796			
18	.217	1.204	100.000			
Extraction Method: Principal Component Analysis.						

CRM as Antecedent of Electronic Retailing and Online Customer Satisfaction

Figure 3. Original loadings of variables

