CASH ON DELIVERY RISK MITIGATION CMRR MODEL

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Abstract

This research paper is an explorative investigation of cash payment on the delivery of electronic commerce transaction to identify the risks and losses incurred by merchants in an unsuccessful transaction using questionnaire instrument on major e-commerce shops in Nigeria (Jumia, Konga, PayPorte, Slot.ng, Jiji Nigeria etc. The study suggested that the risk incurred are associated from return shipment of items, packaging and unpacking of products from unfulfilled transactions, logistics, theft in carrying huge amount of money on transit, fraudulent orders and chargeback in an unsuccessful cash on delivery of electronic commerce transaction. Hence the development of a centralized merchant registration retrieval (CMRR) model to mitigating the identified risk and allied loses, through a post billing mechanism that post-debit a customer, to ensure that a nominal fee for covering the cost associated with unsuccessful transactions are covered. The model was further evaluated from the major electronic commerce shops in Nigeria and their customers for acceptability. The result indicated 70% acceptability by merchants, as a solution that guarantees the effectiveness of cash on delivery electronic commerce transaction, while 30% of customers accepted the model, citing the need for further trust that post-debit bills for cash on delivery transaction will not be affected on successful transactions.

Key words: *Cash payment, Merchants, Ecommerce, Seller, Buyer, CMRR Model, Cash on delivery.*

Introduction

The Nigeria economy with an estimated population of over 215 million (United Nation Population Fund, 2022), internet penetration of 109.2 million users, a generation of young population, with the highest GDP in African (World Bank, 2021), reveals that the ecommerce business environment is attracting merchants and customers despite associated risk business environment, as a profitable industry. However, multinational

firms have received academic recognition in ecommerce, while the cost survival of new entrants and in particular SMSE in ecommerce cash on delivery payment (CODP) is still not clear as it favours' international ecommerce merchants. This study aims at identifying some risk factors that can mitigate ecommerce merchant profitability, by designing a model to fill a gap in purchase process to increase profitability and survival in management earning practices (Fields et al., 2018; Tolstoy et al., 2016; Kim & Lee, 2020; Chevalier, 2022; Mitra et al., 2015; U.S. Census Baureau, 2020; Johnson, 2022; Kelly, 2020; Kemp, 2022; Kemp, 2022; Sasu, 2022a).

The post Covid-19 period has enhanced the use of websites by merchants to reach distant customers due to faster and convenience, minimal entry barrier, price reduction, and a 24/7 hour operations, in addition to cash scarcity in Nigeria. Despite these growths, ecommerce merchants experience certain risk, such as: price war, logistics, competition, fraudulent orders and chargeback, product return, cash handling (security issue). Others are lack of technical capacity for platform operations, financial risk, security risk, cultural risk, and poor Web design, are the major risk and losses incurred by merchant in an unsuccessful cash on delivery of electronic commerce transaction that impact on merchant ecommerce sustainability, (Abdillah & Rahimah, 2023; Okofu, 2021; Carvache-Franco et al., 2022; Okolie & Ojomo, 2020; Gillwald et al., 2018; Akazue, 2015; Khan & Uwemi 2018; Amobi, 2023; Huang & Jin, 2020; Fastercapital, 2023; Gillwald et al., 2018; Ajao et al., 2018; Kaushik et al., 2020; Okofu, 2024; Abbas, 2021; Mourya & Gupta, 2015). Many academics have focused on customers perceived risks as a challenge to ecommerce acceptance such as failed product performance (Ma, 2021; Akazue, et al 2023b), resulting to dissatisfaction (Nayak et al., 2022), security (Khan and Uwemi, 2018) trust (Akazue 2015) with less emphases on merchant risk (Jaiswal & Singh, 2020; Nayak et al., 2022). Cash on delivery payment method in electronic commerce has significantly impacted electronic commerce transaction, assuring customers of product delivery and secured payment (Cuellar-Fernandez et al., 2021). This has more benefits on customers trust enhancement and indirectly increases sales for merchants (Rahavu & Day, 2017). Besides, academics have written on ecommerce merchant but there is need for wider understanding to reduce cost and risk associated with merchant engagement (Ali et al., 2021), to increase participation (Statista, 2022) for continued economic growth (Hayakawa et al., 2021), and global economic growth (National Intelligence Council, 2021). This study therefore, focused on determining a model to reduce some common risk of ecommerce merchant and finding a likely solution to mitigate such risks,

Advantages to Merchants

Some of these are perceived benefits of cash on delivery from the merchant perspective after long observation of current users of such services from supermarkets, to POS operators, businesses e.t.c within the last 12 months from December 2023 to December 2024. Akazue et al (2024b) which includes

a. Enhances brand trust and loyalty due to fulfilled satisfied transaction.

b. Widens customer base due to digital visibility and convenience.

c. Promotes merchant customer relationship.

d. Expand the payments option for inflow of resources.

e. Enables the remote, unbanked and rural dweller participate in ecommerce.

Disadvantages to Merchants

Despite the many benefits of cash on delivery in ecommerce, there exist some economic disadvantages on merchants, that call for immediate remedy, amongst which includes the following according to (Mega et al 2024 and Akazue et al 2024b);

a. Loss incurred from return shipment of item/product as a result of unfulfilled order.

b. Loss incurred as a result packaging and unpacking of products from unfulfilled transaction.

c. Loss incurred from theft in carrying huge amount of money on transit.

d. Loss incurred from fraudulent orders and chargeback.

Typical Cash on Delivery Electronic Commerce Transaction Model

It begins with selecting an item/product of interest by the customers, and completing the order form, with delivery address and contact number. Here payment option is skipped, since payment will be made on product/item delivery (figure 1).

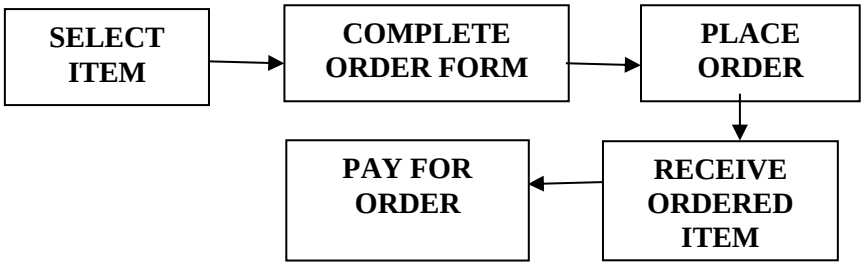


Figure 1: Cash on delivery e-commerce transaction model

Empirical Review

Zhang & Wang (2014) analyzed the factors influencing consumers' behaviour towards online shopping. The result of the study indicated that risk of losing money, failure to receive ordered item, impact consumers' attitude negatively, while personal attitude, domain specific novelty and issues regulations are all factors that influence consumers attitude towards online shopping positively. Hence making cash on delivery a most preferred option to customers to enhance ecommerce (Amobi, 2023; Fastercapital, 2023; Sasu, 2022b; Akazue & Augusta 2015).

In another study carried out in china B2C e-commerce from security perspective, using the grey methodology, the results indicated that cash on delivery is the most proffered e-payment option (Sasu, 2022b; Zhang & Wang 2014) cash transaction (Forbes Africa, 2022), to enhance trust (Akazue, 2015; Choshin & Ghaffari 2017; Igwe et al., 2020; Qi et al., 2020), despite customer fraud experiences (World Bank, 2021).

Also, a survey of various regions payment options in e-commerce in Asia, Middle East, Latin American, it was revealed that cash on delivery was more acceptable and popular, due to its accessibility and risk free from consumer's side (Fastercapital, 2023). Other payment option such as net banking, debit card, credit card, e-cash, contactless payment, e-wallets also had significant acceptability due to ease of use and availability, although not without risk, hence reducing their acceptability (Chirag, 2015). As such, privacy, risk of delivery, security is not a risk that concern consumers in ecommerce adoption (Arora & Rahul 2018; Akazue, 2015).

In the study conducted by Chike & Soremekun (2014), to investigate the impact of cash on delivery payment method in the development of Nigeria e-commerce, the result from the research indicated that Nigerian e-commerce users prefer cash on delivery payment method (Alexander et al. 2022) and companies offering cash on delivery payment option has significant patronage than noncash payment option in ecommerce industry (Anjum & Chai 2020). Despite the rate of internet penetration and increasing users, the

Nigeria economy remains a cash economy, Akazue, et al (2015).

Extant studies have revealed the wide acceptability and high prospect for cash on delivery payment method in electronic commerce transactions (Abdillah & Rahimah, 2023; Anjum & Chai 2020; Alexander et al., 2022; Sasu, 2022), despite unsuccessful transaction associated to increased numerous cost on merchants and logistic partners, Okofu (2023).

Methodology

The proposed extended CMRR functionality for mitigating the economic loss incurred by merchants in electronic commerce cash transactions using cash on delivery payment method is presented in the figure below, (Okofu 2018a; Akazue 2016). It basically introduced a post billing functionality offered by the CCMR to guarantee that all cash on delivery transactions are fulfilled by customers. As in most cases of unsuccessful transaction, has been customers declining to receive and fulfil order for some common reasons as change of mind, or lack of interest on the ordered item. This is obviously due to their none financial commitment to the transaction, and has nothing to lose, leaving merchants and their logistic partners to bear the loss, (Akazue et al 2023; Okofu et al 2023).

The entire system begins with product selection as usual in every electronic commerce transaction system. Next will be order completion form, which entails entering product quantity, delivery address and personal contact information, to ensure specified address delivery. Placing an order will be the next stage in a typical cash on delivery electronic commerce transaction, but in this case will be the extended CMRR functionality component, which request customers to enters account details, Okofu, et al (2024b). Once the customers bank account details entered are verified from the global financial house databank, a post bill is generated and submitted to customers bank, for processing and crediting in the event of unfulfilled transaction, else it is cancelled once transaction is fulfilled. This is to ensure that merchants do not incur any loss. Although the CMRR does not verify bank account balance, it only generates a post-billed check, which is expected to debited to merchant from customers bank in the events that customers fails to fulfill the transaction, after stipulated working days beyond delivery date, (Okpor et al 2024; Ako et al 2024; Akazue et al 2024a; Okofu et al 2024a).

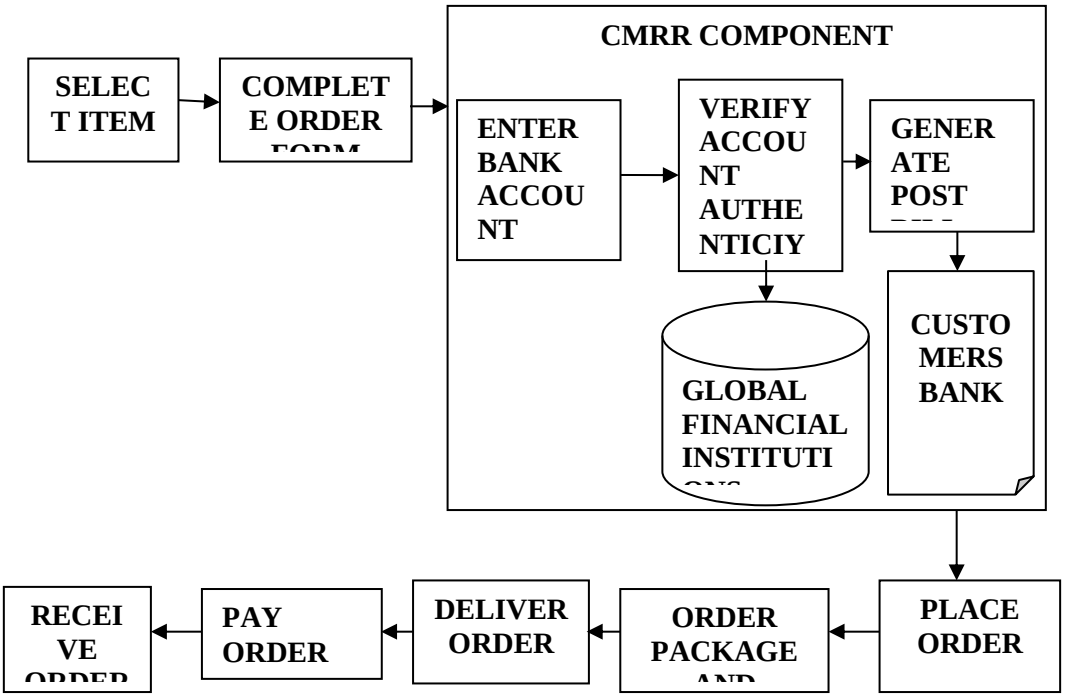


Figure 2 proposed Cash on delivery model with centralized merchant registration retrieval component.

Certain loopholes may exist in the process of purchasing which can lead to the return of the product, but for such the model recommends product return cost should be shared 50% each for both the buyer and seller. This would instill more seriously on the side of both the customer and seller and reduce logistics cost in the event of a returned item with no defect during transit and yet the customer returns the product due to fraudulent orders. The implication is that reduced logistic cost/risk will probably increase profit and ensure survival (Serrano-Cinca, 2021). Also by making adequate provision against perceived risk (cash on delivery) can lead to merchant resilience in this competitive e-merchant environment.

Result and Discussion

The aim of this study was to determine merchant ecommerce cash on delivery post billing Model. The model reveals that post billing will enhance ecommerce merchant survival and sustainability. The findings align with (Pakistan Telecommunication Authority, 2017; Shukla & Sharma, 2018; Ventre & Kolbe, 2020), that the demanding for COD is higher. The need for ecommerce merchant sustainability and growth was to

measure up with the after mate of global covid-19 pandemic and cashless experience by of Nigerian citizens between October 2022 to April 2023 that resulted to increase ecommerce engagement, Akazue & Ajenaghughrure (2015).

The technology acceptance of post billing concerning merchant perceived risk is significantly related to risk mitigation. This implies that when the perceived risk is high ecommerce merchant survival becomes unstable whereas, when perceived risk is low it encourages participation.

Buyers who enjoys shopping from their comfort, due to convenience, and knowledge of online technicalities will continue to make repeat purchase despite post billing mechanism. Implementation of post billing will likely reduce fraudulent orders and chargeback with its associated logistic cost. Clients awareness of post billing mechanism will likely disengage many clients from fraudulent transaction, Akazue et al (2024a). Application of the model will establish a clear delivery terms, which will optimize logistic cost associated with cash on delivery as well as the secured verification process with merchant's banks. The proposed models of cash on delivery (Figure2), will minimize fraudulent orders and payments which will give room for better customer and merchant services satisfaction.

With the increase in ecommerce activities in Nigeria today competitive marketing environment, due to its relevance in today's dynamic market environment where convenience, ease and customers' satisfaction rules the business environments.

i. Loss incurred from return shipment of item/product as a result of unfulfilled order.

ii. Loss incurred as a result packaging and unpacking of products from unfulfilled transaction.

Conclusion

Since cash on delivery has gradually become the trend in ecommerce, to expand target market for some exclusive customers, this study has contributed in the merchant perceived cost mitigation for survival and sustainability. Theoretically, this study has contributed in dimension of cost perceived by ecommerce merchants that determine survival and sustainability. It has also provided evidence of ecommerce merchant technology adoption in the context cash on delivery. Also, the implement of post billing mechanism to maintain profit and reduce fraudulent orders by merchants should be communicated to the target market, (Okofu 2018b; Dio et al 2023).

The implication is that existing and new entrants in ecommerce merchant should enhance web site to reduce hacking, clearer product features/specification, to minimize cost association with cash on delivery and promote ecommerce adoption to enhance involvement, support economic growth, greater technology adoption. Put differently an economic system is not possible without cash transaction. This explains why cash on delivery has become the preferred payment option in ecommerce today.

Further studies: investigate on other logistic risk associated to the life of shipping agent such as kidnapping, theft, is it related to SMEs firm's profitability and sustainability.

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