



ASHESI UNIVERSITY

GROWING ONLINE SHOPPING TRENDS IN GHANA

Undergraduate Thesis

By

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my work and that no part has been presented for another degree in this university or elsewhere.

Candidate's Signature:

Candidate's Name: Karen Acheampomaa Ofori

Date: 27th April 2021

Supervisors' Declaration

I hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of the thesis laid down by Ashesi University.

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Abstract

As the world embraced the internet, businesses began to adopt it in their daily operations. Thus, giving birth to E-commerce. Businesses are now adapting their operations to suit customers demand and remain relevant and competitive in today's technological world. Despite this innovation in the business world, e-commerce is not being utilized fully in Ghana. The purpose of this paper is to identify the enablers necessary for the success of the e-commerce market. To achieve this objective, 40 online consumers and 20 online sellers or store owners were selected from Accra, Ghana to participate in the online survey. This paper focused on finding solutions to the problems that people experienced with digital payment services and logistics services in relation to the e-commerce market, specifically the online shopping market. The findings of the study show that many people do experience problems, and these significantly impact their decision to purchase things online.

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CHAPTER 1: INTRODUCTION

Background

About five decades ago, the internet was born. January 1983 is considered the official birthday of the internet (Naughton, 2016). The first recorded discussion about social interaction through a network was 1962 (Leiner et al., 2009). It was regarded as a luxury tool that only the elite in the society enjoyed. Some institutions and government agencies were also benefactors of this innovation. The main reason for its creation was to enable wireless communication between two computers. At that time, 6.7% of the global population had access to the internet (Naughton, 2016).

Close to the end of the 20th century, the internet slowly became a necessity as many recognised the benefits it held. More people had embraced it, and the number of homes with computers had increased. At that time, enormous amounts of money were invested in internet companies than ever before (Teti & Maroni, 2020). Favourable macroeconomic conditions and the increase in the number of inexperienced investors on the financial market fuelled the economic bubble's growth. These internet companies' stock prices continued to rise exponentially until the NASDAQ Composite Index crashed in March 2000. This caused many online shopping companies to declare bankruptcy and liquidation while other shops survived. However, the stock market value of the surviving companies fell drastically.

In the 21st century, the number of internet users has increased. The internet is almost embedded in our everyday lives. As the internet influences our lives, we need to

adopt modern technology and adapt to it. "... many benefits come not simply from adopting the technology, but from adapting to the technology." (Mühleisen, 2018).

One of the ways that people have adapted to the internet is by transacting business online. This is known as E-commerce, and it involves the buying and selling of goods and services electronically. E-commerce provides more business opportunities than the conventional method of conducting business, which insists on face-to-face interactions. People have learned to adapt the internet to their daily lives, which include their business transactions. When integrated into a business's operations, the internet produces diverse operational and strategic benefits (Boateng et al., 2008).

Also included in e-commerce is e-tailing. E-tailing is the electronic form of retailing, where goods and services are sold directly to the final consumer. It is an avenue for local firms to improve their market value and create value for their shareholders. (Subramani & Walden, 2001).

"The e-commerce market is a rapidly growing market, and it is expected that in the next decade, e-commerce activities would be a significant source of foreign exchange and a key indicator of national development" (Uzoka & Seleka, 2006). This would be a tremendous advantage for African developing countries to develop economically and improve their living standards and quality of life.

E-commerce is beneficial to an economy because it contributes to a country's gross domestic product (GDP). The GDP is an economic indicator of development in a country. It consists of the amount of money spent on consumption, investment, government spending, and exports and imports. According to Lui (2013), e-commerce is

indeed a promoter of the domestic economy. From Lui's analysis, there was a positive relationship between GDP growth and the factors that represent the development level in e-commerce, such as the number of internet users, internet bandwidth, and the scale of online advertising (2013).

In developed countries like the United States of America, e-commerce has caused a disinflationary effect in the short run despite its relatively small contribution to the total value of commerce in the country (Coffinet & Perillaud, 2017). This is caused by the increased competition level among vendors, which exerts downward pressure on goods' prices.

From the evidence listed above, E-commerce has positively impacted the United States of America's economy. Developing countries need to learn from the developed countries the policies and strategies they implemented to achieve a much-desired socio-economic development level. This serves as a guide for developing countries to follow. Thus, helping them also to achieve that level of development.

There are many types of e-commerce businesses. They include the "business to business (B2B), business to consumer (B2C), Business to government (B2G), consumer to consumer (C2C) and mobile commerce (MC)" (Gupta, 2014). These differences exist due to the different parties involved in the transactions. In this paper, we would focus on the Business-to-Consumer type of e-commerce relationship, an e-commerce transaction between a business and a consumer. The Business-to-Consumer type of business hereafter will be referred to as B2C. According to the marketing expert Philip Kotler and Gary Armstrong (2012), retailing occurs when goods and services are directly sold to the

final consumer; thus, B2C transactions can be described as retailing activities. As such, retailing conducted online is sometimes referred to as e-tailing. It is an electronic means of retailing (Aljifri et al., 2003).

Problem Statement

To the merchant, online shopping provides her with an avenue for conducting business with lower capital. It removes the constraints of owning an office space and working within specified business hours. For the vendor that already has a brick-and-mortar store, it is an extra means to reach new customers and increase their customer base, leading to an increase in sales level and improved efficiency.

The online market has not gained prominence in Ghana despite the rise in internet connectivity in the world. Despite the increase, a small percentage of Ghanaians still purchase from online stores. According to Kwarteng and Pilik (2016), customers' preference for online shopping in Ghana and other developing economies is lower than the conventional brick and mortar shopping style for customers.

The growth of e-commerce depends on key infrastructure, which some countries are making slow progress (Dutta, 1997). However, compared to other countries with much more developed information technology infrastructure, Ghana's infrastructure is highly inadequate. \ At the same time, their locals are not averse to adopting modern technology. This contributes to the limitations of growth in the e-commerce market (Javalgi & Ramsey, 2001).

In 2006, a study showed that factors like internet logistics and internet accessibility and security and legal factors were required for growing the e-commerce

market in a developing country (Uzoka & Seleka, 2006). Internet accessibility has gradually improved in Ghana since

Nabareseh (2014) referred to factors such as the number of internet users, internet security, mobile cellular subscriptions, and logistics performance as factors that influence B2C e-commerce development in Anglophone countries. Moreover, Agarwal & Wu (2015) said in their paper that a few areas required for the improvement of e-commerce in a nation included consumer trust and security.

As a result, the delay in developing e-commerce in Ghana can be attributed to the inefficient infrastructural systems needed to support online shopping (Nabareseh, 2014).

In Ghana and some other developing countries like Nigeria, consumers and vendors alike attach a substantial risk to online shopping. This could be because not many people feel secure when using online payment systems when transacting business online. Security and legal factors are essential for the success of e-commerce in Ghana. "Without doubt, the lack of trust appears to pose serious challenges to e-payment adoption and vice versa" (Acheampong et al., 2017)

In African countries where many online systems are not robust, it is relatively easy for a determined criminal to defraud unfortunate customers. The ease of defrauding people online is a crucial cause of Ghanaians' preference for shopping from brick-and-mortar stores. In such transactions, the level of risk involved is significantly reduced. Consumers can inspect the product before completing the purchase. The sellers as well are more assured of receiving payment for their service or goods. There is a reduced risk of being defrauded because the transaction occurs in real-time, physically.

Many scholars believe that a legal framework that governs the e-commerce market is necessary for its success. Ghana is one of the few African countries that has enacted the Electronic Transactions Act (Nabareseh, 2014). In 2008, the parliament of Ghana enacted the Electronic Transactions Act. Some of the primary objectives of this Act are:

1. to remove and prevent barriers to electronic communications and transactions in the country.
2. To promote legal certainty and confidence in electronic communications and transactions,
3. Develop a safe, secure, and effective environment for the consumer, business, and the government to conduct and use an electronic transaction.

Sections 47 to 54 are only concerned with electronic transactions, and they spell out the protection that consumers have during these transactions. According to Act 772, Section 47(6), online merchants are required to use a payment system that is secure for that type of transaction (Electronic Transactions Act 772, 2008). In Section 47(7), "the supplier is liable for damage suffered by a consumer due to failure by the supplier to apply a secure payment system" (Electronic Transactions Act 772, 2008).

This Act protects both the online merchant and the online buyer. Thus, creating a safe and secure space for buyers to purchase online. However, customers feel a sense of doubt when shopping online.

In either case, I believe that it would be beneficial for the Ministry of Trade's government to invest in the education and sensitisation of the public to renew their thinking and debunk certain misconceptions that they may have about the online market.

Logistics is also essential for firms that operate in the e-commerce market because it enables businesses to reach their customers. Rodriguez (2018) argued that logistics in e-commerce includes the transportation system, access to quality services such as parcel delivery services, a well-functioning national address system, and efficient customs and border procedures. She argues that these are essential for creating an environment conducive to reap the benefits of e-commerce. The inefficiency of logistical support, such as the delivery systems, is also a disadvantage to Ghana's e-commerce market.

In the beginning of this paper, it was mentioned that businesses have had to adapt their operations to accommodate the internet to better serve their new customer's needs; at the same time, become more efficient. One of such adjustments is the exchange of money through online or digital payment systems. The advancement of technology has changed the traditional methods of payment to a more secure and proficient means of accessing funds compared to cash. However, studies suggest that many people are wary of using these technologies. This could be due to issues concerning security, trust, and inefficiency of the systems (Boateng & Bulley, 2015); see also Mintah, 2018; Nkrumah et al., 2018).

The infrastructural support that Ghana needs for the online shopping market to thrive includes efficient logistical systems and highly secured e-payment systems.

From the evidence stated above, Ghana has made strides in establishing a legal system that protects both online market parties. Despite this fact, Ghana still needs to improve its online payment systems and delivery systems to have a booming online market.

Methodology

The methodology explains the research method and design mixed methods research method and the explanatory sequential research design was employed for this study using. Primary data would used in this study. For this study, the total population consists of online consumers, online sellers, owners or managers of delivery companies, and managers of online payment companies in Ghana. The study particularly focused on consumers of online shopping goods and online sellers of shopping goods in Accra, Ghana.

In this study, a non-probability sampling technique was used to determine the sample. The purposive sampling technique was used to draw the sample from the target population. Data was collected using both qualitative and quantitative methods.

Research Objectives

The research sought to address the following objectives for this paper:

1. To determine the critical enablers for success in the online shopping market.

Research question

The study sought to answer the following questions:

1. What are the logistical problems in the online shopping market?

2. What problems do customers and sellers experience with digital payment systems in Ghana?
3. What critical enablers are necessary for success in the Ghanaian online shopping market?

Significance of the study

This paper will provide existing and future owners of online shops, logistics companies and digital payment services with the knowledge they need to develop their businesses, which will also improve Ghana's efficiency in domestic and international trade. It will also help consumers have a better understanding of the market and help to alleviate the misconceptions about the Ghanaian e-commerce market. This study will also contribute to this industry's existing literature body as this industry is under-researched due to its novelty. Readers of this study who intend to enter the e-commerce market, as companies that provide logistics services, online shops, or digital payment services will be prepared to better serve their customers.

Organization of the study

To meet the objectives stated and answer the research questions, this study would gather data from online sources and a representative sample from the population, online shoppers in Ghana. This study will include a literature review of previous research conducted in this area to enrich this study's findings. Through this research, the causes of the major problems affecting the online shopping market in Ghana and other emerging countries in Africa would be identified. This will help the industry thrive and further improve Ghana and Africa's economic development at large.

CHAPTER 2: LITERATURE REVIEW

Introduction

This section highlights the literature relevant to this study. It is divided into two main segments, the theoretical review and the empirical review. The purpose of this chapter is to give the reader a better understanding of the current state of the online shopping space in Ghana relative to the world and the challenges faced by all its stakeholders.

Overview of the online shopping market in Ghana

Online shopping refers to an activity where consumers meet vendors on an online platform to transact goods and services. It is an adapted form of shopping from physical sites or in-person shopping. Business-to-Consumer (B2C) transactions hold numerous benefits for both consumers and merchants. One of the most significant benefits is a convenience for the buyer. Both parties to the transaction are not constrained by time or location for fruitful transactions. Both parties can now save time and money that may have been spent commuting to the merchant's shop (Huseynov & Ozkan, 2016).

As the firms need to stay competitive even in this unfamiliar environment, many stores that run conventional brick and mortar stores have also realised the benefit of e-commerce and have adopted it in their regular operations (Ahmad et al., 2015). Other online businesses and online merchants interact with online customers through e-commerce marketplaces such as Jumia and Tonaton. According to a recent survey, online shopping is among the most common activities conducted over the Internet (Purcell, 2011). However, this conclusion may not present a true reflection of Ghana. Empirical

studies suggest that consumer's attitude towards the adoption of e-commerce is influenced by trust in the efficiency and security of the market (Al-Debei, Akroush & Ashouri, 2015). Hence, consumer's aversion will influence other stakeholders' decision to operate in the e-commerce market. Consumers are weary of purchasing items from online shops because of the level of risk attached to the transaction. There is no sure way of confirming the authenticity of a seller, or product. An online seller can easily defraud the customer. There is the added risk of losing money through cyber fraud. According to Bulent Teksoz¹, cybercrime is now moving to emerging economies. African countries have become huge targets as well as a major source of cybercriminals (Kshetri, 2019). "At the moment, cybercriminals see African as a safe haven to operate illegally with impunity" Hamadoun Toure, a former secretary general of the International Telecommunications Union said.

It has been established that several factors are responsible for a booming e-commerce market. One key factor is information technology infrastructure. Information technology infrastructure refers to the combined components needed for the operation and management of an enterprise (IBM, 2020). Information Technology infrastructure constitutes hardware components like routers, computers and servers and software components such as operating systems and content management systems. Since e-commerce is largely based on technology, countries around the world are making significant investments in technology (Javalgi & Ramsey, 2001). Ghana has invested about 1% of GDP in science, technology, and innovation ("Government to Invest One per

¹ Bulent Teksoz is the Global Security Strategist at BAE Systems Applied Intelligence

Cent GDP into Science and Innovation," 2017). The ICT services sector in Ghana includes software and IT consulting, hardware manufacture, information services and telecommunication services. "Ghana was one of the first Sub-Saharan countries to have full internet connectivity" (Sulzberger, 2001), and over the years, Ghana's ICT services sector has contributed about 3.6 % to the country's GDP (Ghana Statistical Services, 2017).

Another key pillar of the e-commerce market is the logistics and delivery systems. Before the birth of the internet, goods could be transported locally and across borders by land, sea and air. All these were important for successful trade to take place. Now, in this new and relatively unfamiliar market, consumers expect online shops to offer logistic services as a complement to their core service offering. Empirical research shows a positive relationship between a firm's logistical capabilities and their performance in the e-commerce market (Joong-Kun Cho, Ozment & Sink, 2008). This suggests that firms that offer logistical services to their customers increase their satisfaction. Demo, Guarnieri and Alvarenga (2018) also argued that logistical services have a significant influence on consumers' online shopping behaviour. Others also argue that the quality of the logistics services heavily influences a customer's decision to repurchase from the same store. Logistics in e-commerce is described as the operational process that includes inputting, storing, transporting and distribution physical goods (Stratton, 2001). Poor logistics and delivery systems would be a barrier to e-commerce growth. "Speed is one important manifestation of e-commerce" (Lawrence & Tar, 2010). However, bottlenecks in the delivery process cause delays in delivery. In Ghana, one of the major causes of inefficiency in delivery systems is the inaccurate national addressing system.

Overview of digital payment systems in Ghana today

Online payment systems, sometimes referred to as electronic payment systems is an electronic value transfer of payment from one party to the other through an electronic payment mechanism (Fatonah et al., 2018). Simply put by Ogedebe and Babatunde (2012), online payment refers to the transfer of money through the internet. The payment system is the entire matrix of institutional infrastructure arrangements and processes in a country set up to enable economic agents (individuals, businesses, organisations and Government) initiate and transfer monetary claims in the form of commercial and central bank liabilities. Digital or electronic payment system is a payment service that uses the information and communication technology (Bezhovski, 2016). Due to the digitisation of funds transfer, it has led to the birth of many forms of e-payment such as debit cards, mobile payments, mobile banking, and digital wallets among others (Bezhovski, 2016)

Ghana is currently making efforts to have establish a cashless economy.

According to the central bank of Ghana, Ghana's payment systems has improved immensely since magnetic ink character recognition (MICR) cheques were introduced. MICR cheques were more accurate than OCR encoded documents (*Overview of Payment Systems in Ghana – Bank of Ghana, 2021*).

In 2000, many businesses in Ghana had invested in electronic payment systems for their businesses, thus expressing their interest in adopting this new technology; yet, almost 20 years later, Ghana is not operating a cashless economy (Apau, Obeng & Darko, 2019). A reliance on a cash-based economy can hinder a country's progress of fully participating in e-commerce (Ayo & Ukpere, 2010). Issues such as a poor network

infrastructure, high illiteracy rates, high cost of internet, poor cybersecurity or the lack thereof has affected the smooth transition of Ghana's cash-based economy to a cashless economy. In addition to these, certain behavioural problems such as mistrust for the online transactions due to the lack of personal interaction, the fear of losing money to cyber-thieves has also impeded the full adoption of a cashless economy (Apau, Obeng & Darko, 2019). Fortunately, Ghana's online payment system development is on an upward trajectory as the country has set objectives to build a more robust system that supports efficiency, security and a cashless economy (*Overview of Payment Systems in Ghana – Bank of Ghana, 2021*).

To address the legal infrastructure governing this new space of digital payments, the first Payment Systems Act 662, was passed in 2003. Recently, that Act was repealed and a new one, passed. This Act serves as a legal framework to “amend and consolidate laws relating to payment systems, payment services and to regulate institutions which carry on payment service and electronic money business and to provide for related matters” (*Payment Systems Act, 2019, 2021*). It states clearly the obligations, and rights of digital payment companies and their employees, and the customers. Section 44 of Act 987, states the principles for consumer protection to be offered by the payment service provider. Section 47 of the Act 987, defines clearly the steps for a customer to make a complaint if need be. This Act provides a high level of protection that fortifies the safety of the cyberspace environment.

Despite the presence of the legal framework, many Ghanaians still preferred to use the traditional methods to execute transactions. However, during the pandemic, there

was a significant change in attitude towards the use of digital payment systems. In Ghana, an increase in the number of transactions executed through digital payment systems, especially through mobile money. People were encouraged to use less of physical cash but more digital cash to reduce the frequency of physical contact hence reducing the risk of infection. They still feared that

Theoretical Review

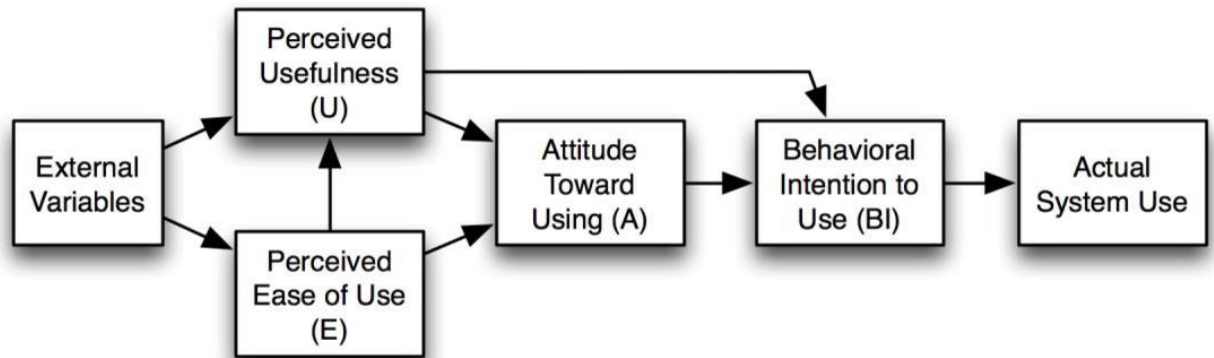
The theoretical review section will explain the theories of technology innovation that are related to this study. The innovation of technology provides business owners and customers with more efficient ways of doing things. However, to implement these, the users must first accept and agree to adopt the new technology (Acheampong et al., 2017). The theories include the Technology Acceptance Model (TAM) and the Technology Readiness Index (TRI). These were developed from the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB), both of which are general models used to understand and predict human behaviour. On the other hand, TAM and TRI are more specific in understanding and studying consumer behaviour when adopting or using technology (Rojas-Mendez et al., 2015).

Technology Acceptance Model (TAM)

This was first established in 1989 to validate and develop a new measurement scale for computer usage determinants. Numerous tests have validated the use of TAM in determining the acceptable behaviours of users of technology. "The origins of TAM can be traced to the Theory of Reasoned Action (TRA)" (Qiu & Li, 2008). The TRA was built to predict human behaviour. It consists of two variables, attitudes towards behaviour

and an individual's positive or negative feeling about an action or belief. The variables used in TAM theory include:

1. Perceived usefulness of the technology (PU): According to Davis (1989), a person's belief that a particular technology is relevant to their job will enhance their job performance.
2. Perceived ease of use of the technology (PEU). PEU refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989). It measures how easily a user can interact with new technology.



(Fedorko et al., 2018)

According to the Technology Acceptance Model, external factors influence a consumer's perception of technology. Such external factors may impact a customer's perception of the technology's usefulness and ease of using this technology. A customer's perception impacts their attitude towards the technology, which affects their intention to use the technology. The model further explains that a consumer's intention to use the technology influence their actual use of the technology. Davies (1989) reported a strong relationship between a user's perceived usefulness of technology and the technology's

eventual usage. However, users are unwilling to use a technology if they find no use for it regardless of its perceived ease of use (Alyoubi, 2015).

Concerning this study, the said technology is the internet, as a medium of shopping. Some of the external factors that affect online shopping include electronic payments, logistics, affordability of the internet, access to the internet, and security issues, to mention a few. These factors can either affect a consumer's perception of usefulness or ease of use of the internet.

Trust is a significant element of online shopping because it has a significant risk level (Nkrumah et al., 2018). Especially in a country that lacks adequate infrastructural support for online shopping, mistrust is a significant problem for online consumers. One canker to the adoption of online shopping in Ghana and other developing countries is the problem of mistrust (Awiagah et al., 2016).

With online shopping, it is the expectation that the other party may not take advantage of the other in the high-risk environment during the transaction (Qiu & Li, 2008).

"Trust encourages online customer business activity" (Gefen et al., 2003); in much the same way, mistrust encourages a lower level of online consumer business activity. According to (Gefen et al., 2003), a consumer's trust in online transactions develops on the premise that the vendor does not have a reason to swindle the consumer or that the website is robust to withstand theft.

E-tailing's success depends not only on the consumers but also on e-tailers^[1] and their acceptance of internet technology as a reliable means of transacting. It also depends on the consumer's acceptance of these e-tailers as reliable merchants.

In what ways can trust be assured in online transactions? Scholars have attempted to predict consumers' acceptance of new technology using PU and PEU. However, in online shopping, the consumer needs to accept the innovation. However, it is more important for the user to incorporate it into their daily lives in order for the online shopping market to grow. This trust-augmented version of the technology acceptance model (TAM) is reliable for predicting consumers' acceptance as well as their repurchase intentions (Gefen et al., 2003). Trust-augmented TAM is thus applied to this study to help managers and owners of online stores predict consumers' behaviour, so they can prepare to satisfy their needs.

Technology Readiness Index (TRI)

The technology readiness index was developed to measure a consumer's belief about technology (Lin et al., 2007).

TRI explores a consumer's 'optimism', 'innovativeness', 'discomfort', and 'insecurity' when using new technology. It is a psychometric model developed by Parasuraman and Colby to assess the North American consumer's readiness for technology (Pires et al., 2011).

This model will help assess both the consumer's and seller's readiness to use the internet as a medium of exchange. Understanding their level of readiness will help inform their actual use of online shopping.

Empirical Review

E-commerce is beneficial for the economies of developing countries as well as business owners in such countries. According to Yaghi (2017), e-commerce could help developing countries benefit from trade. Yaghi (2017) also mentions that e-commerce gives online merchants the benefit of starting a business at a relatively lower cost level. The added cost of acquiring a physical location or storage space. E-retailers, on the other hand, mainly require a suitable and reliable website where customers can shop.

Online shopping is associated with convenience and a hassle-free experience (Wani & Malik, 2013). It allows the consumer to shop comfortably. Online shopping also removes the constraints of time, space and weather (Burke, 1997). Some consumers believe that online shopping helps them save cost from transportation (Miller, 2000).

"Developing countries offer a great market potential for e-commerce" (Alyoubi, 2015). UNDP (2005) suggested that developing countries implement e-commerce wholeheartedly as it held many benefits for them. In Ghana, a promising e-commerce market is becoming more evident as many internet service providers serve customised data management services (Awiagah et al., 2015).

In Ghana, the government has taken active steps in solving the problem by enacting a policy to combat the problems. In 2003, Ghana's government established a policy, known as the Information Communication Technology for Accelerated Development (ICT4AD) policy, to transform Ghana into a middle income, information-rich, knowledge-based, and technology-driven economy and society (Ghana, 2003). Ghana was among the first African countries to establish a policy to address the country's

Information Communication Technology (ICT) needs. This policy is expected to have a 20-year life span to push Ghana towards sustainable economic and social development.

The government has also ensured healthy competition in the telecommunications industry to promote the service offered to Ghanaians. Online sellers are also taking active steps in ensuring their credibility.

Despite the evidence of the vast e-commerce market, Ghana's e-commerce market has not yet erupted. The supposed benefits that Ghana, as a developing country, is expected to enjoy from engaging in e-commerce has not yet materialised. E-commerce thrives in developed countries whiles in developing countries; this innovation of business continues to crawl. Over 95% of e-commerce occurs in developed countries, whiles only about 1% occurs in developing countries found in Africa and Latin America UNCTAD (2004). "Ghanaians have striven to use ICT as a critical developmental enabler for bridging the digital divide between them and their trading partners in developed economies "UNCTAD (2004). Is Ghana technology-ready? Are firms within the country not adopting the new way of conducting business? Are consumers not willing to adopt the new way of conducting business?

Majority of the factors that delay or inhibit the adoption of e-commerce in developing countries are centred on online merchant. Much of the literature highlights the struggles that consumers face when conducting business online; most of the proposed solutions focus on the seller, making them feel safe and secure when interacting with the consumer. Other proposed solutions also focus on government responsibilities and actions that the government can take to ensure the market's success in the country.

For instance, the lack of infrastructure to support online transactions is mostly caused by online shop owners and government agencies. The inefficient logistical systems are blamed on the government agencies. Cybersecurity breaches are also blamed on the government.

Perceived E-Readiness Model (PERM)

This is a measuring instrument that was built specifically for businesses in developing countries to successfully determine the problems that affect their ability to operate their online businesses. This framework considers the perceived organisational e-readiness (PEOR) and the perceived external e-readiness (PEER) of the firm (Molla & Licker, 2005). PEOR focuses on four different factors, namely, managerial, innovation, organisational and environmental adoption contexts. Indeed, awareness is the first step in joining the e-commerce market. Secondly, the organisation would ensure that they have the adequate resources required to facilitate their operations online. Thirdly, the organisation would ensure that they are committed to run their operations online as research shows that many organisations that do not ensure a sustained enthusiasm for adopting e-commerce tend to fail. Lastly, good governance is imperative for any organisation's success and even more so when an organisation implements a new operating system.

PEER refers to a firm's perception of its external environment and how it affects its chances of success in the online market. It considers market forces, e-readiness, the industry's e-readiness, the government's e-readiness. Assessing an organisation's e-

readiness enables the company to identify areas where it needs to improve to ensure higher levels of success in e-commerce.

"According to Mazzarol (2015), for at least the next 15 years it is for consumers to be online increasingly and as such a company that refuses to adapt their operations to accommodate online service offerings will become marginalised and suffer significant risk. It has become more critical for companies and Ghana, as a developing country, to fully be immersed in e-commerce so that the country and its citizens may enjoy socio-economic advancement.

Online Consumer Patterns

Nkrumah et al. (2018) sought to study the extent of online shopping in sub-Saharan Africa, including Ghana. Through their research, they investigated several factors. They discovered that performance expectancy and trust were the main factors influencing consumers' intention to shop online. Social influence and price value had a marginal impact on consumer attitude to shopping online.

According to Andoh-Quainoo and Atuobi-Yiadom (2012), age and education were significant indicators of internet use and the willingness to purchase from online sources. According to the authors, the study participants were majorly situated in Greater Accra, Ghana's capital city. In Africa, most consumers purchase items from neighbourhood stores, open-air markets, and street hawkers (Uzo et al., 2018). One key benefit that these channels hold relative to online shopping stores is the ability to negotiate prices. Uzo (2018) says that the informal nature of purchasing in person allows buyers and sellers to interact and determine the prices and quantities. As opposed to the

impersonal interactions that online shopping provides. Consumers tend to find difficulty in influencing prices; thus, many prefer the traditional shopping method (Uzo et al., 2018).

Online Sellers Patterns

E-commerce holds numerous growth opportunities for business owners in Ghana. It affords business owners the opportunity to reach new customers and new markets without the establishment of physical stores in those areas. Researchers argue that social media has become a marketing tool for local businesses (Jones, Borgman & Ulusoy, 2015; Riu, 2015).

This behaviour towards e-commerce is baffling especially since Ghana has seen phenomenal growth in ICT (Amaglo, 2020). Not only are consumers reluctant to adopt e-commerce, SME businesses too are anxious of moving their business operations online. Some of the factors that impede a business' decision to operate as an online store include sociocultural barriers such as preference for traditional stores, social barriers such as lack of information on e-commerce among others (Boachie, 2016). In Ghana, many online shops have social media platforms which is used as a sales platform.

CHAPTER 3: METHODOLOGY

Overview of Methodology

This study aims to identify the significant factors that lead to the problems that the e-commerce market faces. It also sought to identify the significant enablers for the market's success and recommend solutions to the problems identified.

This chapter outlines the research approach that is to be used in this study to investigate the issues at hand. This chapter highlights the research design, the sample justifications for the chosen sampling technique, the source of data used and the intended data collection process. This chapter aims to explain how the objectives of the research will be achieved. This methodology would be used to address the objectives of the paper.

Research Objectives

1. To ascertain logistical problems in the online shopping market.
2. To identify problems customers, encounter with online payment systems in Ghana.
3. To determine the critical enablers for success in the online shopping market.

Research Approach and Design

The mixed methods research method and the explanatory sequential design will be used in this study. "Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for breadth and depth of understanding and corroboration" (Johnson et al., 2007). Using the mixed methods approach is also helpful because it will

allow both narrative and numeric data to be generated (Curry & Nunez-Smith, 2015). The explanatory sequential design consists of two different phases, the quantitative and qualitative methods conducted in chronological order. The results from the qualitative data would be used to explain the quantitative data. (Creswell, 2006)

Description of Sample and Sampling Strategy

The main target population for this study were buyers and sellers of online stores, logistic companies, managers of online marketplaces and managers of online payment platforms in Ghana. Out of this population, some stakeholders of the e-commerce market were selected to participate in the study. These included, sellers, buyers, and a delivery company. These people were chosen because they are primary stakeholders of the online shopping market in Ghana. They can either affect or be affected by the activities in the e-commerce market. (Chua, 2005)

The participants for the study were selected using the purposive sampling technique. The purposive sampling technique selects participants based on certain characteristics or parameters that is useful for the purpose of the research. In this instance, participants were selected based on their affiliation to the online shopping market in Ghana (Tongco, 2007). Using this sampling technique helped to reduce noise from the data collected. "Noise is irrelevant or meaningless data" (Xiong et al., 2006).

Data Collection and Research Instruments

Primary data was obtained for this study. However, majority of the data used was primary data. Semi-structured interviews and online surveys were used to obtain primary data. Online surveys were used to obtain preliminary data for the first phase of the study.

Due to cost restrictions and state protocols to curb the spread of the coronavirus, administering the survey through the internet was the best most suitable option for this study. From the pool of participants of the online survey, some of the interview participants were obtained.

The second phase of the sequential explanatory design involved collecting qualitative data through semi structured interviews. Using interviews is a clever way of soliciting information that may not be found in quantitative data. An interview is described as a purposeful conversation (Bogdan et al., 1982). "It is used to gather descriptive data in the subject's own words so that the researcher can develop insights on how subjects interpret some piece of the world"(Carruthers, 1990). "The semi-structured interview, therefore, has the advantage of being reasonably objective while still permitting a more thorough understanding of the respondent's opinions and the reason behind them than would be possible using the mailed questionnaire" (Gall et al., 1996).

Ethical Considerations

Some ethical considerations will be made throughout this study. This ensures that the rights and privileges of participants of the study who are human subjects are not violated. Some precautions will be taken to ensure that the participants feel safe and secure throughout the study. These precautions include;

- i. The survey questions that the Ashesi Institutional Board would review would ensure that their human rights are not infringed upon. Only once these questions have been approved will they be used in collecting data from the participants.

- ii. During interviews, participants would be assured of confidentiality. Their identity would be protected throughout the study.
- iii. Participants would be made to understand the study's purpose before giving consent to be part of the study. It is used to analyse classifications and present themes (patterns) that relate to the data.

Data Analysis

Data will be analysed using both a thematic analysis method and the descriptive analysis methods. The data collected from the interviews will be analysed using thematic analysis. "It is used to analyse classifications and present themes or patterns that relate to the data" (Ibrahim, 2012). According to Ibrahim, thematic analysis helps detect variables that concern the subject of study (2012).

The data collected through the questionnaires will be analysed using linear regression. A linear regression analysis will be used to identify relationships between independent and dependent variables (Yan & Su, 2009). For this study, there will be two different regression equations to help answer the research questions. Electronic payment systems and logistical systems will be the dependent variables for each equation. The independent variables will be obtained from the data collected through interviews and questionnaires. The results from the thematic analysis will also influence it.

Limitation of Data Collection

One disadvantage of using a non-probability sampling technique is the problem of non-generalizability. This is because a non-probability technique is attributed to the

qualitative research method. (Palinkas et al., 2015). Also, the data will be analysed using regression analysis, which will increase the confidence of the results obtained.

CHAPTER 4: FINDINGS AND ANALYSIS

Introduction

This chapter presents the findings and analysis of data collected during the research period. The data was collected via online surveys and semi-structured interviews. In this chapter, the results from the data collection process were used to answer the research questions first introduced in Chapter 1. The research questions are

- i. What are the logistical problems in the online shopping market?
- ii. What problems do customers and sellers experience with digital payment systems in Ghana?
- iii. What critical enablers are necessary for success in the Ghanaian online shopping market?

Results from Online Survey

This section focuses on the methods used to analyse the quantitative data. The data collected was analysed using descriptive statistics to identify or provide basic information about the participants, and to identify certain unique patterns from the data and discover trends in the online shopping market in Ghana. These include, measures of central tendency and measures of spread.

Demographic Profile of Data

Quantitative data was collected from buyers and sellers of online products. Twenty-six (26%) percent were sellers and seventy-three percent (73%) were buyers. Of the total number of sellers, fifty percent (57%) operated online or virtual stores. A large number of the sellers comprising almost 80% of total number of sellers were active

sellers, meaning that their last sale was made within the month that the data was collected. About 7% of the total number of had made their last sale more than six months prior to the time the survey was conducted. However, fourteen percent (14%) of the total sellers were yet to sell any merchandise. When asked on which platforms they sold their items, 79% (14 sellers) used social media accounts such as Instagram and WhatsApp.

Of the twenty (20) sellers surveyed, sixty-six (66%) percent employed delivery services to complement their business. Some of these online shops outsourced their delivery services while other online shops resorted to performing this function internally. Fourteen percent of the online sellers did not offer delivery services. Respondents were asked certain questions to obtain an idea about their perception of delivery services in Ghana. These questions were asked to determine their perceived usefulness and ease of use of the logistics and digital payment systems in Ghana. Thirty-eight percent agreed that the delivery service was reliable, 40% believed that it helped to increase their customer base.

Buyers

Seventy-four percent of participants were buyers. Most of them (75%) did not consider themselves to be frequent customers of online shops. While fifteen percent (6 people) of the buyers surveyed did not buy from online stores, forty percent (40%) of the respondents purchased from online stores less than three times in a year and seventeen percent (17%) purchased from online stores at least two times in a month. Forty three percent of the buyers surveyed frequently purchased from brick and mortar stores, fifteen percent purchased from strictly online stores while the remaining forty three percent

(43%) purchased from stores that operated as a hybrid of online and brick and mortar stores. Sixty-three percent of the 40 respondents accessed online stores through social media accounts, forty-five percent accessed online stores through online marketplaces such as Jumia, and thirty-seven percent accessed online stores through the store's official website. The remainder (15%), do not purchase from online stores.

Results from Interviews

This section of the chapter explains the themes the researcher identified from the interviews. A total of nine (9) interviews were conducted. Five (5) of them were also participants of the online survey. The interviewees constituted four online sellers, five buyers, and one Delivery Company. Four of the buyers were females, and one was a male. Three of them buyers were within the age range of eighteen and twenty-five (18-25) years, while the other two were between forty-five and sixty (45-60) years old. None of the buyers considered themselves to be frequent buyers, all their purchases were from Ghanaian online shops.

Three of the sellers were females, and the other one was a male. All the sellers were active sellers, and had sold an item within the last month. All the sellers were between eighteen and twenty-five (18-25) years old. One of the sellers actively imports some raw materials for the production of their product; the other three sellers source their raw materials from Ghana. Two of the sellers sell food items, one sells crafted items, and the other sells jewellery. Neither of the sellers has had a customer beyond the border of the Greater Accra region of Ghana.

The delivery company serves two major customers, businesses, and final consumers. Businesses (online shops) outsource their delivery services to them and they deliver on their behalf to the final consumer at no cost to the business. They are currently in the business of delivering non-food items. This company does not employ dispatch riders, rather they partner with delivery companies to reach customers and businesses.

The themes discussed in this section highlights the main ideas that were either stated or implied during the interviews. These themes helped to identify the trend of e-commerce activities in Ghana today, at the same time exposing the issues in the process of online shopping; from the point where the order is placed to where the product reaches the final consumer. The main points of focus were the logistical services and the digital payment services. As discussed in the previous sections, majority of the respondents offer services to Ghanaians living in Ghana. Thus, their experiences and perceptions reflect this reality.

Delivery

Delivery systems, in this context includes the process of importing goods, the efficiency of delivery agencies, the process of delivery, and the cost of delivery, and the quality of service provided. When speaking with the delivery company, he simply emphasized the importance of automating the process to ensure the efficiency of the system. However, this level of automation requires financial investments which many small businesses do not have. Thus, the need for businesses to outsource their delivery services.

Cost of delivery

All the sellers that were interviewed do not incur any cost during delivery. The representative of the delivery company also confirmed that the final customer paid for the delivery service, not the seller. All the buyers also established that they paid for the delivery service.

Customers when asked to share their thoughts about delivery services thought that the cost of delivery was expensive. One of the buyers said, “Sometimes, the cost of delivery is ridiculous when you consider proximity to the seller and the price of the product, which is the reason for the delivery”. When asked if the cost of delivery impacts their decision to purchase from a store, all customers responded in the affirmative. Another customer also said, “Some of the sellers do not tell their location so that they can benefit from the cost of the delivery”. Three of the sellers attested that the cost of delivery could be high, but only two mentioned that they had lost customers due to the added cost of delivery. These two also admitted to making attempts to reduce the cost of the service. The delivery company also shared that they offered discounts to customers when deliveries are scheduled at least three days prior to the day of delivery.

Quality of service provided

All the sellers implied that their delivery agents provided great service in terms of handling of the product. One of the sellers sells fragile products, yet did not recount any time where any product was mishandled. She mentioned that she was working to improve the packaging to ensure the safety of the products during the delivery process. Customers who were interviewed were sceptical about the delivery of items that they consider to be expensive, or fragile unless it is being delivered by the seller. This is because, many

delivery agents do not care so much about the items, but they are interested in increasing the number of deliveries per day. This assumption was also implied by the delivery company representative.

Transport infrastructure

Transport infrastructure refers to Ghana's road network, and the national street addressing system. This theme was presented by all interviewees as a problem they faced. Some of the respondents expressed their annoyance with the inefficiency of the system.

Poor road networks

When asked whether finding a customer's location was difficult, the representative of the delivery company responded in the positive. He stated that finding the location is now an easier feat. However, the bigger obstacle is reaching the location. To illustrate the gravity of the poor road network, he shared a personal experience. "It [navigation application] got me to the main road, but I could not join the road because there was a big gutter with a cover on it so I could not cross with my car." Some of the sellers also explained that their delivery agents become unhappy when they have to ply certain routes to reach a customer. Poor road networks make the wide spread of delivery services almost inaccessible to some people.

Inaccurate digital addresses

Three of the sellers, in response to the same question also cited the issue of locating customers. They verified that delivery agents, were unhappy when they had to use certain roads during deliveries. Customers also complained when the delivery agents struggle to locate them. Based on the responses, all the interviewees have used digital addresses in their transactions. Yet, most of them do not fully rely on it due to its

inaccuracy. One of the sellers said that some people (consumers) do not know how to use the navigation applications which also affects the accuracy of the address. She also said that “I always ask for a landmark in addition to the digital address. When the dispatch rider reaches the landmark, he calls the customer to be directed to the location over the phone”. Another seller said that her customers had not made any complaints to her. Yet, she as a seller has been affected by the problem. She is of the opinion that some of the delivery agents are not trained to use the navigation applications hence their inability to find her location. On the contrary, when asked, why delivery agents found it difficult in accurately locating a customer, the representative of the delivery company said that, the problem is borne by the dispatch rider and the tools available. He stated that, in the delivery companies that he works with, the delivery agents are trained to read and understand the digital maps. However, some of them do not have smartphones to work with. Thus, they have to rely on oral directions. Unfortunately, the problem with oral directions is that, until recently, many Ghanaian roads were not named, and nicknames and landmarks became actual names of the places. Thus, giving directions to makes it difficult for an individual that is new to an area.

Mode of payment

All the sellers mentioned that they mostly received payment through mobile money. One of the sellers admitted that she wanted customers to send money into her savings account with the bank, but she had to change that plan because she noticed that Ghanaians do not like sending money to bank accounts. Another sellers also said that she had only received payment through mobile money. All the customers who were interviewed also stated that they mostly made payments through mobile money. One of

the customers said she used mobile money more often since the beginning of the pandemic. When asked whether charges from mobile money transactions had an impact on their returns, the sellers stated that the charges were almost negligible since the money will be withdrawn in bulk. One of the sellers said, “I do not understand why some sellers even ask for the cost of charges from customers.”

Discussion of results

Based on the results from the study, sellers found the delivery systems to be easy to use, yet, despite the many problems they encountered, many of them still perceived it to be useful. This is in line with the results from the interviews. Sellers still continued to use delivery systems since it is the means by which they can satisfy the needs of the customers. Buyers found the delivery system easy to use, and useful because it provided them with comfort and convenience. Most of the consumers however, would patronize delivery services more if the cost of delivery reduces drastically.

With digital payments, I believe that it is safe to say that mobile money is a household favourite medium of payment. All the stakeholders of the e-commerce market seem to use it more frequently now than ever. This is in agreement with existing research, that mobile money usage is growing in Africa. Both sellers and buyers find digital payments easy to use and useful. Very few people had problems with this aspect of e-commerce.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

Introduction

This chapter summarizes the purpose of the study, highlighting how the research objectives were achieved, findings, and recommendations for future research.

This study sought to identify the critical enablers for success of the e-commerce market in Ghana by identifying the problems that are plaguing the market in the areas of digital payment systems and logistics, while offering solutions and recommendations to relevant stakeholders.

Recommendation

I recommend that government improve the road network to enhance the transportation in the country which will improve the efficiency of delivery agents. The government has already began the digitization process which involves the issuance of house numbers and naming of streets. This process should be expedited to help reduce the problems inherent in the e-commerce market.

Recommendation for future research

1. Future studies should identify problem areas in the other supporting pillars of the e-commerce market, namely the internet infrastructure to determine why the cost of internet is high and ways of making it affordable for the average Ghanaian.
2. Future studies should explore ways of improving Ghana's e-commerce market using other theoretical frameworks.

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