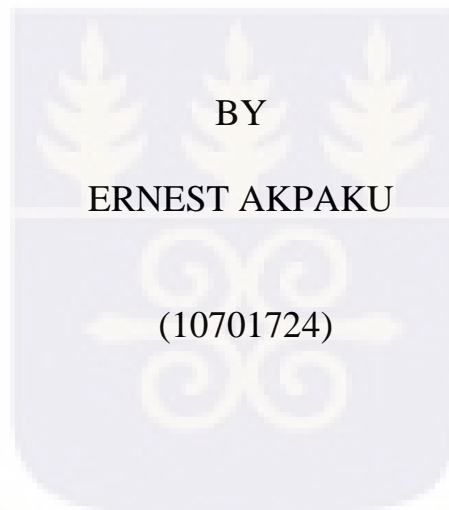


UNIVERSITY OF GHANA

LOCALIZATION OF FOREIGN-OWNED MULTI-SIDED RETAIL
PLATFORM IN A DEVELOPING COUNTRY: A CASE STUDY FROM
GHANA



A THESIS SUBMITTED TO THE DEPARTMENT OF OPERATIONS AND
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MPHIL. IN MANAGEMENT INFORMATION SYSTEMS DEGREE

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DECLARATION

I, **ERNEST AKPAKU**, do hereby declare that this work is the result of my research and has not been presented by anyone for any academic award in this or any other University. All references used in this work have been fully acknowledged. This work was done under the supervision of Professor John Effah and Prof. Richard Boateng of the Department of Operations and Management Information Systems (OMIS).



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CERTIFICATION

I hereby certify that this thesis was supervised under procedures laid down by the University.



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DEDICATION

I dedicate this thesis to God Almighty, the omnipotent who granted me life, encouragement, and wisdom to finish this research. I also dedicate this work to my caring parents, siblings and loved ones for their wonderful support, encouragement, love, and prayers. God bless them all.

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LIST OF ACRONYMS AND ABBREVIATIONS

IS	Information Systems
MSRP	Multi-Sided Retail Platform
MSP	Multi-Sided Platform
IT	Information Technology
BOT	Boundary Object Theory
PCSRC	Postal and Courier Services Regulatory Commission
GCAA	Ghana Civil Aviation Authority
DC	Developing Countries
ISO	International Organization for Standardization
MTN	Mobile Telephone Network
MOMO	Mobile Money
TACT	Technology Affordances and Constraints Theory
TIB	Theory of Interpersonal Behaviour
TAM	Technology Acceptance Model
API	Application Programming Interface
SMS	Short Message Service
SoS	System of Systems

THESIS MATRIX

Research Purpose: The purpose of this research is to understand why and how a foreign firm would localize its Multi-Sided Retail Platform (MSRP) in a developing country and the consequences encountered.				
Research Problem	Research questions	Research Findings	Extant Literature	Contribution
Much of the research on digital platform localization focuses on the developed countries. Little research thus exists on the localization of MSRPs in developing countries.	Why would a foreign firm localize its MSRP in a developing country?	<p>The research findings revealed foreign firms would localize their MSRPs in a developing country because of the following reasons:</p> <p>The findings show that foreign firms localize their MSRPs to adapt to the changing status of local payment methods in a developing country. These payment methods are for instance; the dominant cash culture and local e-payment services. For instance, the firm localized the platform to respond to calls to adapt to the dominant cash culture in 2013 and incorporate local mobile money services such as AirtelTigo Money, Vodafone Cash, and MTN MOMO later in 2017.</p> <p>The findings show that the cost of Internet bundles in developing countries are higher, coupled with slow Internet speed. Since the transported MSRP could not perform better under these conditions, the firm decided to localize the platform to incorporate local functionalities that can reduce Internet bundle consumption and improve its performance for slow Internet connections.</p>	<p>Some authors posit that the rationale for localization of foreign-owned MSRP is motivated by the need to provide a “technologically, linguistically and culturally-fit platform that incorporates local content and functionality to improve user shopping experience (Cyr & Trevor-Smith, 2004).</p> <p>From the digital platform literature, the localization of foreign MSRPs is triggered by the need by foreign entrepreneurs to ensure that their Internet marketing efforts are successful in new geographical regions</p>	<p>The study suggests that foreign firms should pay enough attention to the needs and constraints of the distinct user groups when localizing an MSRP in a developing country. By doing so, the organization would be well-positioned to attract and maintain users.</p> <p>Foreign entrepreneurs in developing countries can benefit greatly from the findings by realizing the need to consider adapting to cultural and environmental issues when localizing their MSRPs for local users. The study emphasizes the need to pay attention to the identified local environmental issues including cyber fraud, limited trust and taste for e-payment services, poor</p>

		<p>The findings also show that developing countries' association with a high risk of cyber fraud and distrust toward online transactions force foreign firms to localize their MSRPs to incorporate functionalities that can respond to the level of fraud in these areas. For instance, the newly integrated local functionalities like the fraud-reporting, ads reporting feature, and SMS verification system helped to respond to the level of transactional fraud.</p>	<p>(Exton, Wasala, Buckley, & Schäler, 2009)</p>	<p>Internet speed and high cost of Internet bundles.</p>
<p>Extant research has focused on the localization of digital platforms like digital gaming platforms, video content platforms (e.g. YouTube) (Al-Badi & Syed, 2010; Mohan & Punathambekar, 2019; Thayer & Kolko, 2004). However, little or no research has focused on investigating the localization of multi-sided platforms like MSRPs.</p>	<p>How can a foreign firm localize its MSRP in a developing country?</p>	<p>The research findings show the various activities that occur within the Foreign-Owned MSRP localization process in developing countries as follows:</p> <ul style="list-style-type: none"> • Identify Issues Confronting the Foreign-Owned MSRP in a Developing Country: The findings show that foreign-owned MSRP localization commences with information gathering on user experience, and the performance of the original platform in a developing country environment. The findings highlighted that the local environment was characterized by poor Internet speed, high cost of Internet bundles, limited trust, and limited digital infrastructure, including e-payment services that constrained the use of the transported platform. This phase influences the organization's decision to initiate a project to localize the transported platform, as well as what local functionalities should be incorporated to adapt to the new environment. • Form locally-partnered localization team: The team comprised of technical people from the case organization, and some selected local users. The technical team got some inputs from the local users in terms of determining actual local user needs, constraints and requirements. 	<p>Most authors assert that the localization of a digital platform is mainly based on the recommendations of technical teams and approval from the management of the organization (Cristian, 2014; Mohan & Punathambekar, 2019)</p> <p>Prior studies revealed that in cases where the deployed digital platform to be localized is transported from a different country, the localization teams comprise of the technical team from the organization as well as local partners who have in-depth knowledge of the target locale (Villegas & Lucas, 2007).</p>	<p>This research adds to the knowledge gap in digital platform research by extending the body of knowledge from the formation, adoption, benefits, and use to the localization of foreign-owned MSRPs. Hence, MSRPs succeed in developing countries when it meets the distinct needs and constraints of the local user groups.</p>

		<ul style="list-style-type: none"> • Make Translations and adaptations to the foreign-owned platform: -At this phase, the findings show that the primary activities undertaken to localize the MSRPs include translating elements such as time zones, currency symbols, local colour sensitivities, product or service names, gender roles into country-specific formats and local terminologies. -The findings further indicate that the activities performed in this phase included the continuous development and incorporation/integration of new local functionalities that meet the local needs and constraints of the user groups. • Maintenance: it was found that the platform is continuously updated and upgraded with new functionalities depending on trends from competitors, changes in user preferences and culture towards payment methods. 	<p>Also, the literature revealed that research on multi-sided retail platforms in developing countries should pay attention to the localization of foreign-owned multi-sided retail platforms (Effah, 2014).</p>	<p>The study has helped in the explanation of localization of digital platforms in the context of MSRPs localization in a sub-Saharan African country.</p>
<p>There is limited research on the consequences of using a localized foreign-owned MSRP in a developing country.</p>	<p>What are the consequences of using a localized foreign-owned MSRP in a developing country?</p>	<p>Intended consequences: The findings reveal that localization can improve public trust for MSRP transactions and increase e-sales for local suppliers and advertisers in developing countries.</p> <p>Unintended consequences: the findings show that although localized MSRPs adapt to the local needs and constraints of the local user groups, it poses challenges such as transactional delays, increased maintenance cost.</p> <p>Finally, the research findings indicate that localization of a foreign-owned MSRP shares transactional risks among the platform owner, third-parties (e.g. outsourced delivery partners), and suppliers.</p>	<p>In the existing digital platform literature, some consequences of using a localized multi-sided retail platform show that the use of the localized foreign-owned multi-sided retail platform can double the e-sales of suppliers and advertisers, increase maintenance cost (Singh et al., 2009; Deaton, 2003; Singh, Park, & Kalliny, 2012).</p>	<p>In terms of practical contributions, the study makes contributions by pointing practitioners to possible positive and negative consequences they could derive from the localization of foreign-owned MSRP in developing countries.</p>

ABSTRACT

The purpose of this study is to understand why and how a foreign firm would opt to localize its Multi-Sided Retail Platform (MSRP) in a developing country and the consequences encountered. Much of the existing research on MSRP has focused on developed countries. Within the limited digital platform literature in developing countries, the dominant focus has been on impacts, implementation, user adoption and constraints. Little empirical findings exist on why foreign firms opt to localize their MSRPs in developing countries, how the localization is done, and the consequences thereafter.

To address these research gaps, this study used the Boundary Object Theory (BOT) as its analytical lens and qualitative interpretive case study as the methodology to investigate the localization of a foreign-owned MSRP in a developing country. The findings revealed that foreign firms opt to localize their MSRPs in developing countries to adapt to the level of fraud, high cost of Internet bundles, and poor Internet speed. It further revealed that since developing countries' digital infrastructure, including e-payment facilities, are at their nascent stage, it is necessary to localize foreign-owned MSRPs to adapt to the dominant cash culture and emerging local e-payment services. The need for foreign firms to adapt to the needs and constraints of local users compel them to localize their MSRP in a developing country.

In addition, the findings show that foreign-owned MSRP localization commences by gathering user responses on how the developing country environment and preferences of the local users impacted or affected the acceptance, performance and use of the platform. The findings highlighted

that the local environment was characterized by slow Internet speed, high cost of Internet bundles, limited trust, and limited digital infrastructure, including e-payment services that constrained the use of the transported platform. These reports influence foreign organizations to localize their MSRPs in a developing country.

In terms of the consequences, there were some intended and unintended consequences. For intended consequences, the findings revealed that the use of localized MSRPs in developing countries improved customer trust and willingness to use the technology. The localization exercise was also expected to increase e-sales for advertisers and suppliers. For unintended consequences, the findings revealed that localization can delay transactional time and increase maintenance costs for platform owners. It was further revealed that localized foreign-owned MSRPs share transactional risks between platform owners, suppliers, third-party delivery organizations, and customers rather than among suppliers and customers.

The originality of this study stems from it being one of the few studies conducted on the localization of MSRPs from a developing country perspective. Further research is encouraged in this area to demonstrate how MSRP localization differs across a greater selection of developing countries. Therefore, future studies may consider using multiple case studies from two or more developing countries to investigate foreign-owned MSRP localization.

CHAPTER ONE

INTRODUCTION

1.1 Research Background

In the past two decades, traditional retail business models have undergone extensive digital transformation (Ciocca, 2020). The increasing growth of the Internet and Multi-Sided Retail Platforms (MSRP) are factors responsible for the disruptions occurring in the retail sector (Hänninen, Mitronen, & Kwan, 2019). MSRPs refer to digital platforms like those created by the Alibaba Group, eBay, and Amazon. Such platforms facilitate the interaction and exchange of products and services between independent suppliers, advertisers, and end-customers (McIntyre, Anshari, Almunawar, Masri, & Hamdan, 2019). The MSRP business model improves local shopping experience in terms of the speed of receiving products and services. Based on recent analyses of 250 digital platform companies performed by Accenture (2019), MSRP companies generated more than \$308 billion in annual revenue in 2016. Accenture further predicts an 18% growth in revenue for the year 2020 and beyond, two to three times the growth rate of non-digital platform companies.

Having disrupted developed countries, MSRPs are finding their way into underserved markets like those in developing countries. However, cultural values in the two worlds differ significantly (Heeks, 2002). MSRP developers take into account how users from a given locale think, feel and act toward the technology. The differences in culture and user preferences may influence the acceptance of foreign-owned MSRPs in developing countries (Al-Badi & Mayhew, 2010). For

instance, developing country environments suffer from issues such as slow Internet speed, high cost of data, mistrust in online payment platforms, and unstable electricity supply (Effah, 2014; Farid, 2018). Digital platforms featuring foreign languages, signs, and symbols create confusion, frustration, and offensiveness for local users (Mchale & Lane, 2019). Such challenges call for the need to localize foreign-owned MSRP in developing countries. Vatanasakdakul (2008), for instance, recommends foreign entrepreneurs to localize their innovations rather than deploy platforms that fit the needs and conditions of developed countries because of the above issues. In this instance, the user experience may need to be radically localized to incorporate functions that are specific to the concerned developing country. Localization is the process of modifying foreign-owned technologies to adapt to the user needs and conditions of a specific environment (Exton et al., 2009). In other words, localization is simply defined as the adaptations made to an imported technology to appeal to the needs and desires of local users at the country level. Generally, the goal of localization is to provide a technologically, linguistically and culturally related platform and incorporate local terminologies and functionalities (Mohan & Punathambekar, 2019).

Research shows that localization of foreign-owned MSRP can improve user acceptance, ease of navigation, and purchase intention (Singh et al., 2012). A study by Effah (2014) attributes the limited success of foreign entrepreneurs in developing countries to the failure to localize their transported MSRPs. Farid (2018) found that MSRPs in countries like Bangladesh, Nigeria, Kenya and South Africa failed to attract participants due to failed localization attempts. Researching foreign-owned MSRP localization is important because the findings can help researchers understand the activities involved in adapting their innovations to the contexts of developing countries. Platform localization can also help respond to slow Internet speed and logistics issues

associated with developing country environments. A successful MSRP localization exercise can also increase revenue generation options for platform owners by two-hundred percent (Ciocca, 2020). Foreign entrepreneurs can localize their MSRPs by adapting to fit developing country culture, values and practices (Mohan & Punathambekar, 2019).

Also, some developing country researchers (Effah, 2014; Farid, 2018) have called for foreign organizations to localize their imported innovations. However, empirical evidence on how foreign-owned MSRPs localization can be achieved remains limited. It is, therefore, important to investigate why and how a foreign-owned MSRP can be localized in a developing country. The few studies have however focused on issues such as formation, failure, adoption, impacts, and design of MSRPs (Anshari et al., 2019; Eferin, Hohlov, & Rossotto, 2019; Effah, 2014; Hänninen et al., 2019; Hänninen, Smedlund, & Mitronen, 2018; Vatanasakdakul, 2008). The focus of this study is, therefore, to extend the discussions in the digital platform literature from formation, adoption and use to the localization of a foreign-owned MSRP in a developing country.

1.2 Research Problem

In the digital platform literature, some research on MSRPs already exists (Bartelheimer, Betzing, Berendes, & Beverungen, 2018; Ciocca, 2020; Eferin et al., 2019; Parmentier & Gandia, 2017; Sanchez-Cartas & Leon, 2019; Staykova, 2015; Tan et al., 2015; Tan, Tan, & Pan, 2016; Zhao, von Delft, Morgan-Thomas, & Buck, 2019). More specifically, much of the research has focused on adoption, formation, failure, diffusion, benefits and use (Bartelheimer, Betzing, Berendes, & Beverungen, 2018; Hänninen et al., 2019; Hein, Schrieck, Wiesche, Böhm, & Krcmar, 2019; Kang, 2014; Kwark & Chen, 2012; Lee, 2016; Nakayama, 2009; Tan, Tan, & Pan, 2016; Van

Alstyne & Parker, 2017). Relatively little empirical research, therefore, exists on foreign-owned MSRP localization in developing countries. Second, these past studies have been silent on how foreign firms can localize their MSRPs in developing countries. Localization here refers to the set of activities undertaken to adapt a foreign-owned platform to the conditions of use in another context.

Some empirical studies point to the need for entrepreneurs to localize rather than blindly copy MSRP innovations from other contexts (Effah, 2014; Singh et al., 2012). However, the existing research has focused much on the localization of digital platforms such as YouTube (Mohan & Punathambekar, 2019) and digital gaming platforms (Thayer & Kolko, 2004) compared to foreign-owned MSRPs. Given the difference in user functionalities and goals, insights from the localization of these platforms may be different from those of MSRPs. For instance, MSRPs enable interactions between distinct user groups with separate interests and perceptions about the platform. This phenomenon may influence the success of foreign-owned MSRPs in developing countries. For instance, Al-Badi and Syed (2010) investigated how to design usable localized digital business platforms, which is a one-sided platform. In their study, the authors noted the factors that need to be considered when localizing a digital platform. They include usability, computing environment, country profile, user profile, and business model. The researchers believe that adapting to the above factors may attract and retain users on the platform. Likewise, Mohan and Punathambekar (2019) found that platform localization cannot be merely about local language implementation, subtitling, and technological tweaks that respond to concerns like data speed and cost. Their research focused on the localization of YouTube in developing countries.

In the context of developing countries, little or no empirical research exists on foreign-owned MSRP localization. Instead, the dominant focus has been on adoption, impacts, formation, failure and success factors, implementation and use (Aminu, 2013; Appiahene, Michael, & Daniel, 2014; Effah, 2014; Farid, 2018; Hossin, Sarker, Xiaohua, & Frimpong, 2018; Olayinka & Peter, 2016; Pucihar & Podlogar, 2005; Rahman, 2015). For instance, Effah (2014) investigated the formation of MSRP and analysed the reasons for its failure in a developing country and highlighted that the MSRP failure is attributed to the lack of a clear digital business model and attention to the local digital business environment. The study also showed that the inability to attract members and generate sustainable value accounts for the failure of MSRPs in developing countries.

Despite the growing literature on digital platforms, empirical research on foreign-owned MSRP localization in developing countries remains limited. Consequently, this study investigates a case in Ghana to understand why and how foreign firms localize their MSRP in a developing country and the consequences thereof. These studies have contributed to the body of knowledge in digital platform research; however, there are some research gaps including:

- i. Extant research has focused on the localization of digital platforms like digital gaming platforms and video content platforms (e.g., YouTube) (Al-Badi & Syed, 2010; Mohan & Punathambekar, 2019; Thayer & Kolko, 2004). However, little or no research has focused on investigating the localization of multi-sided platforms like MSRPs.
- ii. Much of the research on digital platform localization has focused on the developed world. Within the limited literature on the developing world, the dominant focus has

been on formation, adoption, diffusion, success and related constraints. Little research thus exists on why and how foreign-owned MSRPs are localized in developing countries. The study is considered significant because MSRPs deployed in developing countries are often imported from other regions, therefore, the need to localize or not may be relevant to research, practice, and policymakers.

- iii. IS theories that have dominated digital platform research over the years include TOE, UTUAT, and TACT. However, these theories are weak in analysing user groups that share disparate goals, interests, and perceptions about information systems. Since localization ensures that the actual needs and constraints of distinct user groups are met, this study employs the BOT as an analytical lens to analyse the localization of a foreign-owned MSRP. This choice is motivated by assertions inscribed in the original paper of Star and Griesemer (1989) that the BOT is useful for studying such technologies.

This study extends existing research on digital platform localization in the above three ways. The study focuses on MSRPs and explicitly considers the interactions among different types of users (i.e., customers, suppliers, and advertisers) on the platforms. In contrast, past work in IS has predominantly investigated digital platforms like YouTube, gaming platforms, and one-sided platforms such as business websites.

1.3 Research Purpose

Drawing motivation from the established gaps in the digital platform literature, the purpose of this research is to understand why and how a foreign firm would localize its MSRP in a developing country and the encountered consequences.

1.4 Research Questions

Based on the research gaps and purpose, the study addresses the following questions:

1. Why would a foreign firm localize its MSRP in a developing country?
2. How can a foreign firm localize its MSRP in a developing country?
3. What are the consequences of using a localized foreign-owned MSRP in a developing country?

1.5 Significance of the Study

MSRPs in developing countries are often imported innovations. Therefore, investigating the localization of such foreign-owned MSRPs in developing countries is important. The study is expected to significantly impact policy, research, and practice in the following ways.

First, the study can acquaint policymakers with the need for developing country governments to initiate policies or amend existing ones to govern MSRP transactions to respond to issues including fraud, dispute resolution, and provide mechanisms for their enforcement.

For practice, the significance of this research stems from the opportunity it offers to understand how the socio-technical environment of developing countries can influence the localization of foreign-owned MSRPs. The findings can inform industry and practitioners on how foreign-owned MSRPs can be localized to target local markets like those in developing countries and the required functionalities they need to incorporate and remove.

In terms of research, the study expects to extend the developing country digital platform literature on MSRPs from the dominant focus on adoption and use to localization.

1.6 Chapter Outline

This first chapter (chapter one) introduces the research by detailing the research background, research problem, research purpose, research objectives, research questions, the significance of the research, and the organization of the research.

Chapter two presents the relevant literature on digital platforms, digital platforms, e-business models, digital platforms in developing countries, MSRP, and platform localization. The chapter further explains the literature related to MSRPs.

Chapter three presents the theoretical foundation for this study and explains the key concepts and principles of the theory that would guide the analysis phase. The chapter further justifies why the selected theoretical framework is suitable for this research.

Moreover, chapter four presents the research methodology adopted in this study. The chapter also explains the research paradigm, research approach, research method, and strategy. It further justifies the rationale for selecting the case organization, research paradigm, and methodology. The chapter concludes by stating the data collection tools and techniques that were being used to analyse the study for the study.

Chapter five highlights the case description of DRetail (Pseudonym), which stems from the findings from the data collected. It also provides detailed findings from the data collected from the selected case organization.

Chapter six of this research presents an analysis of the case findings presented in Chapter five. It further enriches our understanding of the findings and shows the interpretation of the analysed case. The analysis was done using the theoretical framework as a lens to identify the respective themes that were used to discuss the findings of this research.

Chapter seven presents and discusses the findings in comparison with the existing literature.

Finally, chapter eight presents the summary, suggestions, recommendations, limitations and future research directions of the research. The chapter also provides a detailed summary and conclusion of the research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The preceding chapter presented a background of digital platforms, Multi-Sided Retail Platform (MSRPs) and foreign-owned MSRPs in developing countries. It also discusses the research problem of this study. The purpose of this research is also stated. The chapter also presents the research questions that underpin the quest to understand the phenomenon of study. The chapter ends by giving a synopsis of the other chapters of this research. This chapter discusses and reviews relevant literature relating to digital platforms, foreign-owned MSRPs in developing countries, platform localization, MSRP localization, e-business models and MSRPs. The review is important to understand existing knowledge in this research area to identify the related gaps in the digital platform literature that this research intends to fill.

2.2 Digital Platforms

A digital platform is defined as a software-based technology that provides core functionalities shared by modules that interoperate with it and the interfaces through which they bring together groups of users in two-sided networks (Klein, Sørensen, Freitas, Pedron, & Elaluf-Calderwood, 2020). The term has been used across distinct disciplines, including information systems, management, and engineering (Koskinen, Bonina, & Eaton, 2019). In management and engineering, for instance, digital platforms have been viewed as products and technological systems, respectively (Chekanov, 2020). In recent times, the concept has dominated the

Information Systems (IS) literature (Asadullah, Faik, & Kankanhalli, 2018). Consequently, a wider range of its adoption has brought about different meanings depending on the application and context of use. Digital platform usefulness is witnessed in many industries, including trading (Tan, Tan, & Pan, 2016; Effah, 2013), transportation or ride-sharing (Sutherland & Jarrahi, 2018), and hospitality (Asadullah et al., 2018). Enterprises that have utilized digital platforms have achieved significant growth in size and scale (Asadullah et al., 2018). For instance, in the retail industry, digital platforms are useful for reaching a wide range of potential clients in national and international markets (Hänninen et al., 2018).

Prior research has conceptualized digital platforms in two main dominant views. First, the technical view focuses on the technical elements and processes that interact to form a digital platform (Blaschke, Haki, Aier, & Winter, 2018). The second is the socio-technical view that presents digital platforms as two-sided or MSPs that facilitate digital transactions between interdependent user groups such as buyers and sellers (Rolland, Mathiassen, & Rai, 2018; Tiwana, Konsynski, & Bush, 2010; De Reuver, Sørensen, & Basole, 2018). The technical view defines a digital platform as an extensible codebase of a software-based system that provides functionalities shared by the modules and interfaces through which they operate (e.g., Apple's iOS and Mozilla's Firefox browser) (Koskinen et al., 2019). These modules are add-on software subsystems often in the form of applications designed and developed by third-party developers (e.g., iPhone apps and Firefox extensions) (De Reuver et al., 2018).

Beyond the technical aspect, digital platforms are socio-technical phenomena that are viewed as a central point of gravity within their business ecosystems (Blaschke et al., 2018). Studies in this stream regard digital platforms as a commercial network or e-marketplaces. Thus, such digital platforms facilitate transactions between independent user groups like customers, advertisers, and suppliers (Asadullah et al., 2018). For example, Koh and Fichman (2014) define digital platforms as a two-sided network that facilitates interactions between distinct but interdependent groups of users, such as buyers and suppliers. The focus of this view is on the interactions between the different groups that join a platform either as users or as providers of goods and services. For instance, studies adopting this view cite MSRPs as typical examples (Asadullah et al., 2018). In all these streams, previous studies have been centred around platform formation, design, adoption, failure, success factors, benefits, and value creation (e.g. Ghazawneh & Henfridsson, 2013; Saarikko, 2016; Tiwana, 2013; Budu, Akakpo, & Richard, 2018).

2.2.1 Categories and Types of Digital Platforms

Digital platforms are complex and differ in forms (Klein et al., 2020). They can range from simple e-marketplaces and social media platforms to more complex developer environments where app developers can create and sell their digital products, or one that empowers businesses (Zutshi & Grilo, 2019a). The major types of digital platforms are transaction and innovation platforms (Klein et al., 2020; Remane, Hildebrandt, Hanelt, & Kolbe, 2016; Täuscher & Laudien, 2018). These platforms are further categorized based on (1) the scope of stakeholder involvement, (2) business model, (3) mode of governance, and (4) ownership structure (Asadullah et al., 2018; Hinings, Gegenhuber, & Greenwood, 2018; Klein et al., 2020; Koskinen et al., 2019; Saarikko, 2016).

For digital platforms categorized based on the scope of stakeholder involvement, the types as further specified in the platform literature are internal platforms, supply-chain platforms, and industry platforms (Reuver, Sørensen, & Basole, 2018; Saarikko, 2016; Lauslahti, Mattila, Hukkinen, & Seppälä, 2018). This typology comprises platforms used for showcasing commercial products and services (Koskinen et al., 2019).

Internal platforms are described as types of platforms implemented and used internally in a single firm to reduce cost and to improve flexibility and time to market products (Claffy & Clark, 2016). Generally, internal platforms reveal their functionality through APIs. Common examples of internal platforms are found in the automotive and electronic industries. The adoption of internal platforms in the automotive industry, for instance, allows retailers to offer mass customization to buyers. Developers of internal platforms are privileged to reuse modular components to enable system architectural stability (Gawer, 2009; Rusanen & Paavola, 2014; Saarikko, 2016).

Table 2.1: Categories and Types of Digital Platforms

Categories	Major Types	Examples	References
Scope of stakeholder involvement	Internal platforms	IBM, Sony Walkman.	(Schrieck & Wiesche, 2017)
	Industry/external Platforms	Video game consoles, PCs, web systems, automotive technologies, smartphones.	(Ghazawneh & Mansour, 2015; Saarikko, 2016)
	Supply chain platforms	Automotive technologies	(Hänninen, Smedlund, & Mitronen, 2018)

Business model	MSPs or Transaction platforms	Facebook, eBay, Airbnb.	(Eferin et al., 2019)
	Product platforms	Cloud computing initiatives, Linux.	(Ciocca, 2020)
	Integrated platforms	Google’s Android & play store, Apple’s iPhone & App store	(Van-Belle & Mudavanhu, 2018)
Mode of governance	Opened platforms	Linux, Xbox360	(Eisenmann, Parker, & Van Alstyne, 2009)
	Closed platforms	Apple iOS; Google Android.	(Asadullah et al., 2018; Kash, 2013)
Ownership structure	Proprietary platforms	Sony (game consoles); Microsoft platforms (e.g. Microsoft Office)	(Economides & Katsamakas, 2006; Hagi, 2011)
	Open source platforms	Linux; R	(Blaschke et al., 2018)

Table 2.1 state the types of digital platforms with their categories and respective examples. Supply-chain platforms expand the scope of the internal platforms by engaging multiple firms within a supply (Saarikko, 2016). Technically, supply chain platforms are similar to internal platforms; instead, the main differences between the two are the increased number of stakeholder involvement for supply-chain platforms. In this case, multiple firms establish and use the platform in the value chain. However, the risk of supply chain platforms has been largely attributed to platform governance conflicts as the multiple stakeholders may have different interests and priorities (Hänninen, Smedlund, & Mitronen, 2018). Both internal and supply-chain platforms adoption are stemmed from the manufacturing industry with automobiles as typical examples (Lauslahti et al., 2018). Industry platforms also known as external platforms or innovation platforms (Van-Belle &

Mudavanhu, 2018) further expand the scope of stakeholders involvement by adding stakeholders that are willing to conform with rules and regulations provided by sponsor(s) (Saarikko, 2016). Claffy and Clark (2016) alluded that industry platforms are “produced by one or a set of firms and then made available to other entities (complementers) to develop products on top of that platform.” The industry platform is defined as a set of technologies that are “developed by one or several firms, and that serve as foundations upon which other firms can build complementary products, services or technologies” (Zutshi & Grilo, 2019).

Other studies (Boudreau & Lakhani, 2009; Hagi, 2007; Van-Belle & Mudavanhu, 2018) have categorized the types of digital platforms based on their business models as integrated platforms (e.g., Apple iOS, InnoCentive.com, Google Android), product platforms (e.g., Linux, Cloud computing initiatives), and MSPs (e.g., Facebook, eBay, Alibaba). Integrated platforms are platforms through which external contributors (e.g., iOS software developers) can join and create apps (products) for end-users (Asadullah et al., 2018). This category includes companies such as Apple, which has both matching platforms like the App Store and a large third-party developer ecosystem that supports content creation on the platform (Olayinka & Peter, 2016). A product platform is a set of common components, modules, or parts from which a stream of derivative products can be efficiently developed and launched (Hänninen et al., 2019). For example, cloud-computing initiatives such as Amazon Web Services (AWS) are product platforms made up of several components and modules. Firms such as Facebook, eBay, and Alibaba use MPS technologies, where the platforms serve as mediators among participants (usually buyers and sellers) for value creation. The third categorization of platform types found in the literature is based on their mode of governance. Within this category, the types include open and closed platforms.

The Linux OS and Apple's IOS are respective examples. The last category is based on ownership of the platform. These include property-based (e.g., Microsoft platforms) and open source-based platforms (e.g. Linux, R) (Zutshi & Grilo, 2019b). Open-source platforms are open to third-party development. Property based-platforms, on the other hand, are firm-based or internally developed (Koskinen & Bonina, 2019).

2.2.2 Characteristics of Digital Platforms

Digital platforms present some characteristics that are worth mentioning. First, digital platforms contribute to significant reductions in transaction costs, including distribution, search, contracting, and monitoring costs (Hänninen et al., 2019). For example, aggregation platforms such as 3idatascrapping.com gather and combine data from multiple sources into one platform, thereby reducing the cost of searching for information on data. Also, other attributes have been discussed in terms of broader concepts, such as modularity (Yoo, Henfridsson, & Lyytinen, 2010). Modularity refers to the logical partitioning of a complex technology to be manageable for implementation and maintenance (Chekanov, 2020).

For example, the modularity of digital platforms enables the technology to address problems based on the diversity of the interacting participants. Generally, digital platforms encompass two material layers: physical hardware and a digital (or digitized) layer. The digitized form describes the logical capability (i.e., the software instructions or operating system on which the hardware operates). The hardware may also serve as an interface or a device, peripherals, which are used to access the digitized data. Koskinen, Bonina, and Eaton (2019) assert that digital platforms share three essential characteristics: (1) they are technologically mediated; (2) they enable interaction between

distinct user groups, and (3) allow user groups to perform some specific functions. Table 2.2 illustrates the key characteristics of the two major types of digital platforms discussed in section 2.2.1 above.

Table 2.2: Key characteristics of transaction and innovation platforms

Type of digital platform	Transaction Platform	Innovation Platform
Function	Matches users or user groups, the value for a user increases with the number of users in a user group	An extensible codebase as a core that enables the adding of third- party modules that complement the core
Key target groups	Participants to a transaction	Application developers
Key governance issues	Attracting users from the relevant groups (indirect/direct)	Relationship between developers and platform owners
Theories	Multi-sided markets, indirect and direct network effects	Boundary resources, platform openness, platform ecosystem
Developmental questions	Income/job opportunities, filling institutional voids, removal of market frictions	Creation of app economies, development of tools (apps) to solve local challenges
Examples	eBay, WhatsApp, Skype. Airbnb, Mercado Libre, Uber	Apple iOS, Linux, Android, SAP

Source: Adapted from Koskinen et al. (2019, p. 322)

Currently, the vast majority of digital platforms that disrupt the retail sector in developing countries are transaction platforms (Farid, 2018). However, as noted above, these transaction platforms are developed and transported from developed worlds and sometimes lack the expected characteristics

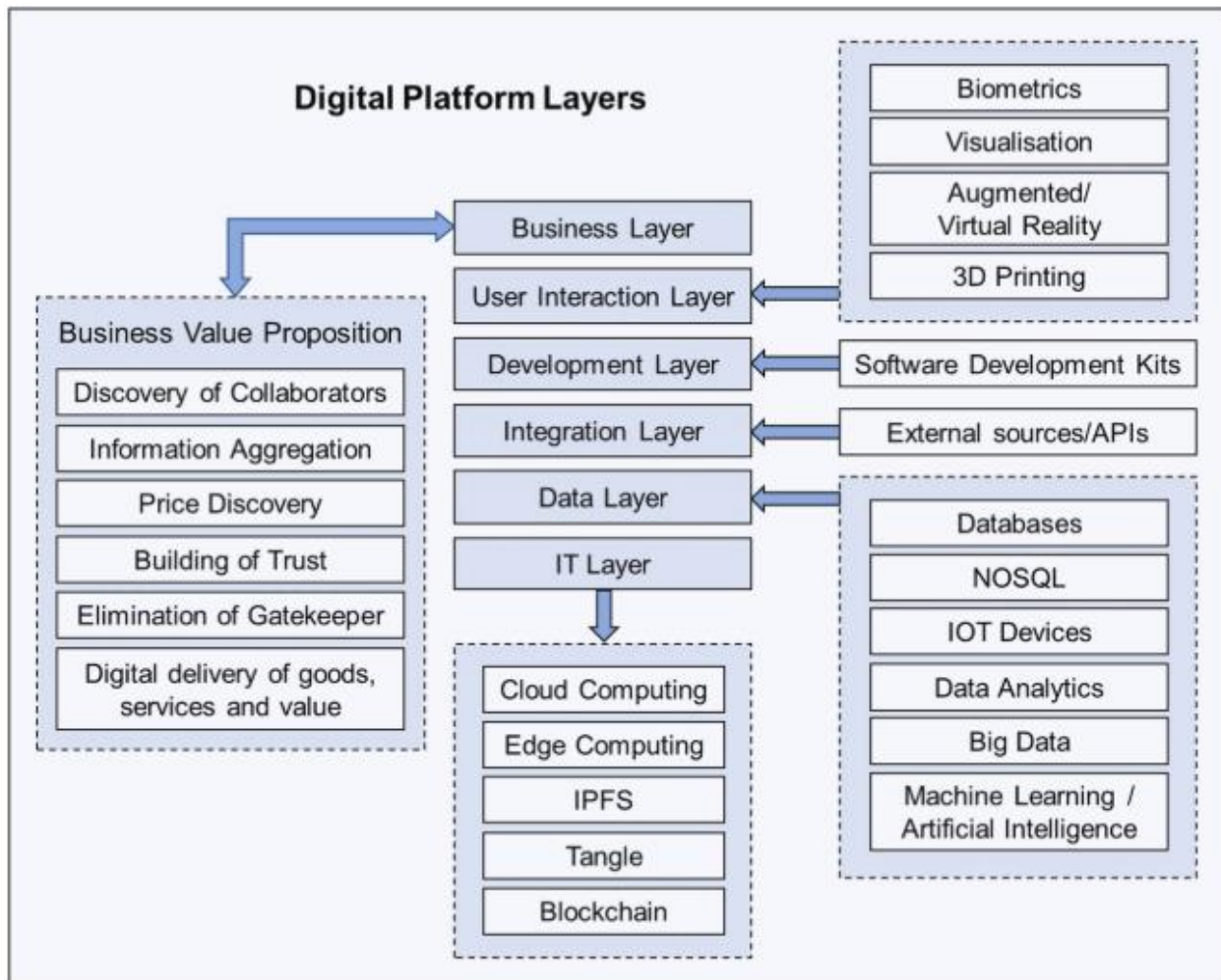
of users in developing country environments (Ciocca, 2020). Therefore, it is imperative to be aware of the characteristics and factors that underlie the functioning of foreign-owned transaction platforms in developing countries. Another characteristic is that platforms are part of ecosystems that make them functional and successful. Regardless of the types of digital platforms and their characteristics, Koskinen et al. (2019) emphasize that it is necessary to unearth how digital platforms are connected to other socio-technical elements, such as actors, institutions and entities.

2.2.3 Digital Platform Architecture

The platform architecture focuses on problems of setting up the platform actors, the market, and the fundamental structure (Tura, Kutvonen, & Ritala, 2018). Digital platforms consist of multiple loosely coupled components that rest on digital infrastructures such as hardware and software (Blaschke, Haki, Aier, & Winter, 2019). According to Zutshi and Grilo (2019b), a typical digital platform architecture comprises of the following layers or components: the business, user interaction, development, integration, data and IT layers. Platform architecture describes the purpose and core interaction, including the main interactions that take place in the platform, and related missions and goals (Hein et al., 2019). The business layer defines the business model of the platform, which promotes interactions between participants within the ecosystem (Zutshi & Grilo, 2019b). In this layer, platform designers may identify a compelling value proposition for the actors in order to maintain loyalty to the platform. Digital platforms do not function as standalone pieces of software. They are getting more sophisticated as they integrate newer business models and interfaces external technologies such as e-payment gateways and advertisement services (Heitkötter, Kuchen, & Majchrzak, 2015). These involve integration with external APIs and providing inputs to other external service providers. For example, ride-sharing platforms may

use Google APIs to interface mapping functionalities. At the design stage, it is vital to carefully define the type of integration required depending on the platform use cases (Parmentier & Gandia, 2017). Figure 2.1 presents an adapted version of a platform architecture that explains the various layers of a digital platform.

Figure 2.1: Digital Platform Architecture



Source: Adopted from Zutshi and Grilo (2019b, p. 6)

The platform architecture is a socio-technical assemblage and a unique combination of distinct platform components. This modular nature allows platforms to emerge and adapt to changes in their environment, including new users or adapt to changing institutional conditions (Bartelheimer et al., 2018). According to Saarikko (2016), platform components also include stable core and replaceable modules. The stable-core component “denotes an extensible codebase serving as a building block upon which third parties devise platform-augmenting derivatives (e.g., products, technologies, channels, and services)” (Blaschke et al., 2018). The replaceable modules represent the components tailored to meet the unique needs of the platform users.

2.3 Multi-Sided Retail Platforms

MSRPs are a type of business model innovation that has emerged in the past two decades through advances in information technology and changes in consumer demands and expectations (Hänninen et al., 2018). They facilitate interactions between a wide network of actors with disparate intentions, goals, and perceptions (Bartelheimer et al., 2018). MSRPs can be defined as virtual platforms where customers, suppliers and advertisers conduct electronic retail transactions (Hänninen et al., 2018). They are often web-based and mobile applications that virtually connect multiple user groups such as advertisers, suppliers and customers to interact and transact retail businesses electronically (Hänninen et al., 2019). An MSRP can also be defined as a web-based information system, where disparate user groups meet and undertake retail transactions through the Internet (Boudreau & Hagiü, 2011; Hagiü & Wright, 2015; Staykova, 2015).

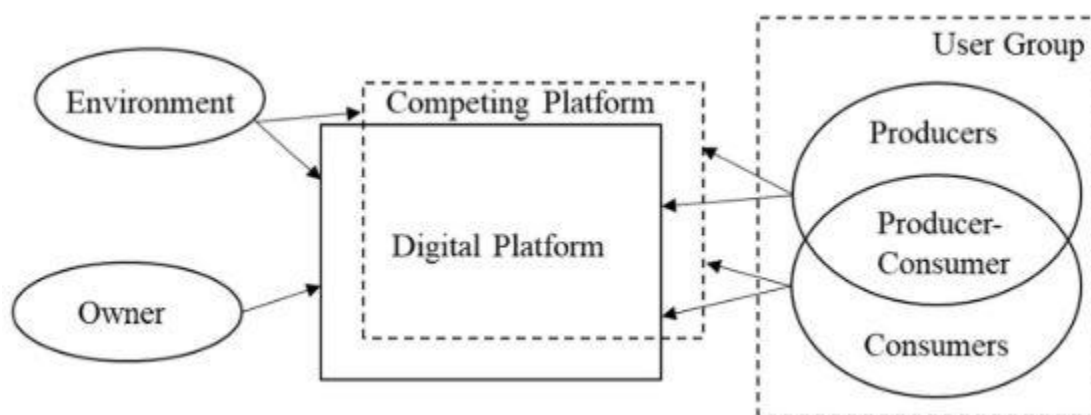
Digital platforms like Jumia, Tonaton.com, and OLX that facilitate transactions between customers, suppliers, and advertisers can be cited as typical examples of MSRPs. MSRPs exhibit features and functionalities that reduce transaction and search costs and coordinate the demands of platform participants (Porch, Timbrell, & Rosemann, 2015; Van-Belle & Mudavanhu, 2018). Search costs are reduced by creating a more convenient way to connect customers, advertisers, and suppliers (Staykova & Damsgaard, 2015). The fundamental services offered by MSRPs include the provision of electronic catalogues for the e-exchange of goods and services and online auctions. They aggregate content, provide value-added services, and offer multiple supplier alternatives (Chekanov, 2020). MSRPs are set up by platform owners to match customers to suppliers and advertisers. In some cases, MSRPs are created and managed by a single supplier or advertiser seeking to increase reach (Hänninen et al., 2019).

2.3.1 MSRP Actors and their Roles

The actors in MSRPs can be defined as a group of heterogeneous users who are electronically connected to perform retail transactions (Esposito De Falco, Renzi, Orlando, & Cucari, 2017). Actors in MSRPs can include the platform provider, suppliers, advertisers, and customers (Kalia, 2015; Lee, 2016; Ndou, Del Vecchio, & Schina, 2009; Prihastomo, Meyliana, Hidayanto, & Prabowo, 2018). The platform provider acquires, develops, operates and maintains the MSRP (Bartelheimer et al., 2018). Popular examples include Amazon and eBay (Ciocca, 2020). They govern the platform to ensure safety, support, and maintenance. However, they do not immerse themselves in retail transactions that take place on the platform (Pucihar & Podlogar, 2005). Within the developing country digital platform literature, it is identified that platforms tailored for

the developed world may not be suitable for use in a developing country (Ciocca, 2020; Farid, 2018). As such, Vatanasakdakul (2008) advocate for the adaptation of such platforms to the socio-technical environment of developing countries, since such transported innovations cannot serve the needs of retailers from different contexts. Figure 2.1 states the various actor groups of a digital platform.

Figure 2.2: Digital Platform User Groups



Source: Adopted from Hevner and Malgonde (2019, p. 2)

Local retailers who are sometimes individual sellers and SME organizations participate in MSRPs as suppliers who offer value in the form of products and services (Bartelheimer et al., 2018). They present their businesses, products, and services by providing information such as product descriptions, opening hours, product pictures, contacts, and addresses on the platform (Ciocca, 2020). They also participate in the MSRP by taking photos of their products with descriptions and sharing them on the platform. Customers strolling traditional markets and streets in search of products to buy also participate in MSRPs. The platform provides customers with the option to browse thousands of products from different suppliers and advertisers to fulfil their needs (Hänninen et al., 2018). Advertisers who mount billboards along the streets also participate in

MSRPs. They run their businesses in physical office spaces or online and might want to present their services in the form of banner ads to attract customers (Pucihar & Podlogar, 2005).

2.3.2 Enabling Factors and Barriers of MSRPs

MSRPs operations are successful in any socio-technical environment due to several factors. The physical environment within which the platform is deployed has societal norms, attitudes, and cultural beliefs that support the use of MSRPs (Verhulsdonck, 2018). Increasing penetration of smartphones and the Internet in underserved regions has been cited as a positive indicator of MSRP initiatives (Akter, Kusum, Hasan, & Naima, 2016). Increasing competition among telecommunication companies is a contributing factor to the rising deployment of MSRPs worldwide (Rahman, 2015). According to Eferin et al. (2019), other enablers include the availability of digital infrastructures such as the Internet, smartphones, laptops, e-payment services, and logistics.

In developing countries, some MSRP constraining factors includes the lack of preparedness, awareness, and limited trust for online transactions (Evans, Schmalensee, Noel, Chang, & Garcia-Swartz, 2011; Farid, 2018). Limited digital infrastructure, including e-payment services and supporting logistics required to distribute online purchased items constrain MSRP transactions (Effah, 2014). The percentage of total Internet users in most developing countries like Ghana, Togo, and Bangladesh is arguably low compared to advanced countries (Rahman, 2015). This is due to the constantly rising cost of Internet bandwidth in such areas. The slow Internet speed is also predominant in less developed countries. To adapt to these situations, Ciocca (2020) called

for MSRP providers to consider adapting transferred innovations to the socio-technical environment of developing countries. Especially in the case where MSRP innovations are transported from developed countries to developing countries. A study by Effah (2014) also observed the need for foreign entrepreneurs to account for contextual differences between the two regions and adapt the technology to the developing country environment.

2.3.3 Benefits of MSRPS

The benefits of MSRPs cannot be over-emphasized, as it appears to be common knowledge in both practice and research. MSRPs reduce search and transaction costs. They bring together many customers, suppliers, and advertisers and enable the automation of retail transactions and doing retail businesses through the Internet (Bartelheimer et al., 2018). MSRPs provide rich product information to customers and marketing information to suppliers and advertisers (Ferreira, Moreira, Pereira, & Durão, 2020). Aggregating information goods, integrating the components of the consumer process, managing physical deliveries and payments, and providing relationships of trust and ensuring the integrity of the markets are other cited benefits of MSRPs. By charging fees for using the MSRP, platform owners can earn vast revenues (Bartelheimer et al., 2018). An MSRP has three main functions: matching customers, suppliers, and advertisers (by aggregating demand and supply) supporting transactions, and ensuring convenient retail transactions (Täuscher & Laudien, 2018).

2.4 E-Business Model and MSRPs

The e-business model describes organizations' nature, value proposition, products and services provided, and revenue generation options (Lee, 2016). MSRP is an advanced form of e-business

model that offers a digital platform for divergent user groups to interact and transact retail businesses electronically (Sanchez-Cartas & Leon, 2019). Within the MSRP literature, e-catalogue aggregators, e-exchanges and e-auctions have been discussed as the common types of e-business models supporting online retail transactions (Pucihar & Podlogar, 2005; Salehi-Sangari & Engström, 2007; Täuscher & Laudien, 2017).

The electronic catalogue aggregator model provides a digitized version of suppliers' catalogue, which provides information on product specifications, prices and FAQs, and illustrates the items that the supplier can provide (Ferreira et al., 2020). It is made up of the sell-side and buy-side catalogues. Sell-side catalogues mainly provide many benefits to suppliers and advertisers, including ease of keeping product information up to date, savings on advertising costs and the costs of processing a sale. The buy-side catalogue presents vast opportunities to customers, including reduced communication costs, increased security and the opportunity to access many catalogues on one platform (Bartelheimer et al., 2018). The second e-catalogue model, e-auction, also known as online auctions, enables customers to invite suppliers to engage in competitive bidding until an acceptable price is reached (Voudouris et al., 2008). The e-exchange model presents a digital version of the traditional stock or commodity exchange to customers and suppliers (Eisenberg-Nagy, Illés, & Lovics, 2019).

The value proposition of MSRPs focuses on functionalities that can create more revenue generation options for the platform owners (Hänninen et al., 2018). As a digital platform, the revenue model in MSRPs often depends on commissions received from advertisers and suppliers.

However, whatever value an MSRP intends to offer, they must consider such values from the disparate users' perspective as part of an e-business modelling strategy (O'Reilly & Finnegan, 2009). As part of setting up an MSRP e-business model, five elements have been discussed: focus, governance, functionality, technology, and partnership (Klein et al., 2020). Ciocca (2020) also notes that as part of arrangements to remodel a transported MSRP, adapting to the conditions of the local environment of the target audience, should be considered. As such, the need to adapt to the socio-technical environment of developing countries is critical to the success of foreign-owned MSRPs in these areas. By doing so, the platform owner hopes to provide a value that appeals to the target users, taking into consideration their environmental needs, barriers, and conditions.

2.5 Foreign-Owned MSRP in Developing Countries

Although MSRPs have been around in developed countries since the nineties, such has not been recorded in developing countries (Hänninen et al., 2018). Several environmental factors account for the slow adoption rate of MSRPs in the case of developing countries. For example, Farid (2018) and Rahman (2015) highlight the lack of trust and high cost of Internet data as some reasons for the limited adoption and use of MSRPs in developing countries like Bangladesh, Kenya, and Nigeria. Consequently, customers, advertisers, and suppliers are unwilling to engage in MSRP transactions in these areas. A review of some existing research points out that foreign entrepreneurs often pay less attention to the local environment when deploying their MSRPs in developing countries (Barrett, Miller, & Edick, 2019; Farid, 2018). Developing country environments are associated with dominant cash culture, high cost of Internet data, slow Internet speed, unreliable electricity supply, and lack of trust in e-payment facilities, which constraints the acceptance and

usability of foreign-owned MSRPs (Adeyeye, 2008; Farid, 2018). These problems hinder the success of transported MSRPs in developing countries.

Arguably, inferring from the digital platform literature (Farid, 2018; Rossotto et al., 2018), one can assert that foreign entrepreneurs who fail to adapt their MSRPs to the culture and conditions in developing countries may not succeed in such markets. Singh et al. (2012), therefore, recommend entrepreneurs localize their foreign-made innovations to local audiences. This is because, given the contextual differences between the varying locales, not all transported innovations can function well in new locations (Hallier Willi, Nguyen, Melewar, Gupta, & Yu, 2019). However, limited empirical evidence exists on this phenomenon. Most of the foreign-owned MSRPs lack the necessary functionalities to respond to the data saving and safe logistic structures in developing countries (Farid, 2018). The e-payment functionalities incorporated in foreign-owned MSRPs to complete transactions need to be modified to meet the developing country cash dominant system. In short, foreign entrepreneurs intending to promote their MSRPs in developing countries must become aware of these problems and account for them.

2.6 Platform Localization

Currently, within the digital platform literature, the localization process remains best understood within the world of one-sided platforms such as business websites (Al-Badi & Syed, 2010; Mohan & Punathambekar, 2019). Within this stream of research, the focus has been on translations and adaptations of platform user interfaces, contents, menu items, and currency symbols. Platform localization is the process of adapting a digital platform to a particular language, locale, culture, and desired local experience (Al-Badi & Syed, 2010). Localized platforms reflect a complete

adaptation to the culture of the target market. Localization may also involve the process of adapting linguistic and cultural content to specific target audiences in specific locales. A “locale” is a term used to describe the unique linguistic, cultural and business rules for a given target audience (Villegas & Lucas, 2007). For example, the official language spoken in Sri Lanka is different from the language spoken in Ghana, and the same conditions apply for currency and business rules. Hence, an MSRP transported from the former may not fit the actual needs of the people in the latter. Similarly, prior studies have shown that information systems tailored for a specific world may not meet the needs and conditions of use in different areas (Gazé & Vaubourg, 2011; Staykova & Damsgaard, 2015). As such, transferred platforms are adapted and translated to serve country-specific purposes. According to Villegas and Lucas (2007), a digital platform developed with a specific context in mind can be re-designed, re-built, and customized to satisfy varying customer requirements.

Regarding the rationale for localizing foreign-owned platforms, Singh et al. (2012) observed that platform localization enhances customer trust, as it is more likely to trust a “familiar person” than a “stranger.” Platform localization is required to adopt the local language, terminologies, signs and symbols, and web content that is culturally fit for a local environment. It is also noted that foreign-owned platforms deployed in unintended environments create confusion, frustration, and in the long run, drive local users from interacting with them (Hawkins et al., 2016; Mohan & Punathambekar, 2019; Singh et al., 2012). Mohan and Punathambekar (2019) also asserted that adaptation of platforms to local environments is crucial to responding to contextual concerns such as data speeds and cost, infrastructure deficits, lack of trust, and logistic deficits are key to platform localization.

Extant studies have explored platform localization from different perspectives, including digital gaming and video content platforms (Ciocca, 2020; Mohan & Punathambekar, 2019; Pesce, Neirotti, & Paolucci, 2019). These perspectives have set the premise for a platform localization framework. The framework proposes three-tier approaches for platform localization as follows: 1. Context localization; 2. Content localization; 3. Cultural localization (Singh et al., 2012). Therefore, the notion of platform localization is better perceived as a joint effort among platform stakeholders, contextual differences to meet intended functionalities and usefulness.

Context localization is the process of localizing platforms to adapt to the expectations of specific stakeholders. Content localization is the act of localizing platforms to a specific country by adapting elements like language translation, navigation structure, support and global gateways. Cultural localization is the process of localizing the content of the platform to the culture of a specific locale. Previous studies have pointed out several benefits of localizing transported innovations. For example, it is noted that platform localization improves market accessibility, provides a significant impact on platform acceptance, and a significant increase in e-sales. (Sanchez-Cartas & Leon, 2019). Previous research has shown that localization enhances the platform's usability, perceptions of ease of use, and intention to buy (Ciocca, 2020).

To successfully localize a digital platform for a specific country, factors such as language, culture, customs, colour preferences, currency, and time zones should be considered in the localization process (Al-Badi & Syed, 2010). Within the platform localization literature, several frameworks for localizing MSRPs have been proposed. Singh et al. (2009), for instance, proposed a conceptual

framework for localizing platforms with content localization, cultural customization, local gateway, and translation quality as factors that need to be considered when targeting specific locales. This framework emerged out of the many previous studies that have shown that digital platforms may require unique features that can resonate with distinct conditions of specific locales. A review of the few platform localization studies provides only shattered answers to questions concerning appropriate ways for analysing the localization of foreign-owned MSRPs (Cristian, 2014; Mohan & Punathambekar, 2019; Singh et al., 2012). Salehi-Sangari and Engström (2007) attributed the lack of research to the novelty of the phenomena.

Though important, some scholars (Chong, 2004; Frisk, 2008) hold the view that it may not be enough to localize a foreign-owned platform by simple translation of the text that comes along with the technology. Deeper levels of localization move beyond translation to include socio-technical aspects of the locale where the platform is intended for (Soh, Romain, & Pauline, 2015). When technology is being localized for another locale, some texts require translation or symbols that must be converted. Once this is accomplished, the platform is considered to be generally localized. However, this may not be enough if the platform still does not fit into local users' expectations or understandings. A review of the digital platform literature also shows that past studies have only focused on the localization of digital platforms like YouTube, company websites, and digital gaming platforms with no focus on MSRPs (Al-Badi & Mayhew, 2010; Thayer & Kolko, 2004). Particularly in the retail sector, there exists less research on the localization of MSRPs in developing country contexts.

2.6.1 Localization of MSRPs

Although in practice, some few localized MSRPs have emerged in the developing world, there is almost no explicit empirical evidence on this phenomenon (Appiahene et al., 2014; Farid, 2018; Rahman, 2015). This lack of attention is surprising amid the increasing proliferation of localized MSRPs in these underserved regions, including Ghana, Kenya, Nigeria, Bangladesh, and Sri Lanka. However, as indicated earlier, some attention has been given to the localization of digital platforms such as online game platforms and Video content platforms (e.g., YouTube) (Mohan & Punathambekar, 2019; Thayer & Kolko, 2004). The process of localizing MSRPs can be significantly different from the process of localizing YouTube and digital gaming platforms. Although many of the issues can be discussed in similar terms, the retail industry moves with it a series of unique challenges.

To begin a discussion on the localization of MSRPs, it is important to highlight some existing elements and guidelines inherent in previous research aimed at improving platform localization efforts. Prior research has extensively focused on developing conceptual frameworks for localizing business platforms or company websites (Al-Badi & Syed, 2010; Singh et al., 2012, 2009). The frameworks suggest some guidelines for designing a localized business platform for specific locales. In their framework for designing usable localized platforms, Al-Badi and Mayhew (2010) for instance, observed that integrating local users into all the design phases can create a platform that suits their needs and conditions.

Often, platform elements, including graphics, navigation structure and position, colours, text alignment, and data entry form usage are localized to resonate with the perceptions and preferences of the target audience (Al-Badi & Mayhew, 2010; Thayer & Kolko, 2004). Common localization practices indicate that platform elements like navigation structure and positioning can be adapted to local users' real-world experience. It has also been proven that mother tongue languages influence user preference and understanding of product descriptions, navigation and text positioning (from left to the right-hand side). Therefore, translating original texts and terminologies inscribed in foreign-owned technologies from their original to local languages is expected to help localize them. Ciocca (2020) recommended that this approach should be taken into consideration when attempting to localize MSRPs like eBay and Amazon for a specific culture.

The socio-cultural environment of MSRPs includes a particular language, culture, colours and symbols that will not match the preferences of every locale (Singh et al., 2009). Products and services published on MSRPs are essentially advertisements that are assigned titles, descriptions, attributes, and images (Cyr & Trevor-Smith, 2004). These metadata can be adapted both linguistically and culturally depending on the audience the entrepreneur hopes to reach when localizing MSRPs (Ciocca, 2020). As a consequence, previous studies suggest that localization can improve user acceptance, increase e-sales and ease of use (Singh et al., 2012).

2.7 Chapter Summary

The chapter presented a literature review on digital platforms. The various themes that emerged included digital platforms, MSRP, MSRP Actors, enabling and constraining factors of MSRPs, foreign-owned MSRPs in developing countries, platform localization, and localization of MSRPs. The literature reveals that research on the localization of MSRPs in developing countries is underexplored. However, most of these studies on MSRPs in developing countries have largely focused on formation, adoption, and failure issues. Therefore, this research seeks to understand why and how a foreign firm would localize its MSRP in a developing country and the consequences encountered.

CHAPTER THREE

THEORETICAL FOUNDATION

3.1 Introduction

The previous chapter discussed the relevant contemporary literature on digital platforms and MSRP localization since it is the phenomenon that this study seeks to investigate. The review revealed some gaps related to digital platform localization in developing countries, which is the focus of this research. This research, therefore, employs the Boundary Object Theory (BOT) as a theoretical lens to understand the phenomenon by finding answers to the research questions. This chapter discusses the empirical grounding of the theory, a detailed explanation of BOT and its concepts, the application of BOT in IS research and its application in this study.

3.2 Empirical Grounding of the BOT

Theories present conceptual means through which researchers can study social structures and less understood phenomena to find answers to research questions and problems (Patas & Goeken, 2011). Theories also provide concepts that are essential to define a research problem or achieve a research purpose by critically organizing and interpreting what has less empirical understanding (Georgia, 2017). Hence, in this study, the BOT was employed as a theoretical lens to guide data collection, analysis and discussions on the localization of a foreign-owned MSRP in a developing country.

3.3 Overview of Boundary Objects

Boundary objects are “entities that enhance the capacity of an idea, theory or practice to translate across culturally defined boundaries, for instance between communities of knowledge or practice” (Island, Lindroth, Lundin, & Steineck, 2019). The concept was conceived by Star and Griesemer (1989) as an object that can be interpreted from different perspectives by separate user groups interacting with it. They opined that a distinct group of actors who interact with a boundary object have different interests, commitments and perceptions about the artefact (Huvila, Anderson, Jansen, Mckenzie, & Worrall, 2016). Hence, the interpretations of each user group influence how they use an object. In the original boundary objects article, Star (2010) defined objects as “something people act towards and with” (p. 603). The “something” can be a technology, an artefact, or a document. In the IS literature, for instance, boundary objects may represent databases, cloud computing technologies, and requirements of an information system.

Consequently, an object qualifies as a boundary object only “when it is used between groups or when it serves as a device for transformation, translation, and negotiation at the professional boundaries” (Island et al., 2019, p. 427). This is because the characteristics of boundary objects are said to “inhabit several intersecting social worlds, and satisfy the informational requirements of each of them” (Star & Griesemer, 1989, p. 389). As stated earlier, “these objects can be physical objects, such as documents containing diagrams of the system architecture, or electronic objects, such as email” (Fong, Valerdi, & Srinivasan, 2007). Boundary objects may “encompass not only technologies but also humans” (Fleischmann, 2006, p. 78). The typology of boundary objects is categorized into four functional categories as identified by Star and Griesemer (1989): i.e. repositories, ideal types, coincident boundaries, and standardized forms (Huvila et al., 2016;

Melville-richards, 2015). Apart from the four types discussed by Star and Griesemer (1989), different kinds of boundary objects have emerged over the years as the concept has received attention across several disciplines. For example, Huvila et al. (2016) put types of boundary objects together as follows: visionary, designated, primary and secondary boundary objects. Visionary boundary objects constitute institutionalized forces or best practices, whereas primary and secondary boundary objects are “physical and abstract objects that facilitate collaboration and activities of participants. Designated boundary objects, on the other hand, are objects that are interfaced in other communities e.g., APIs. Recognizing the craftwork of BOT can help to identify the relationship between a platform designed that is based solely on the platform owner perspective and one that is designed from a comprehensive perspective and its consequences (Doolin & McLeod, 2012). Primary boundary objects are physical and abstract objects around which all the activity is (supposed to be) focused. Secondary objects are secondary artefacts that facilitate interactions around the primary objects (Aminu, 2013). Star (2010) cited machines, literature, concepts, methods, data, and results as examples of physical and abstract objects.

3.4 The Concepts of BOT

The fundamental concepts of the BOT theoretical framework are boundary objects, actors, and their interactions (Amankwah-Sarfo, Effah, & Boateng, 2018). The actors are stakeholders who interact with an object. Interaction is the contact or divergent viewpoints actors associate with the boundary object (Islind et al., 2019). The theory emphasizes that boundary objects are ‘plastic enough to adapt to local needs and the constraints of the several user groups employing them, yet robust enough to maintain a common identity across sites’ (Star & Griesemer, 1989). Concepts of

the BOT may be relevant to studies investigating technology adaptations (Fox, 2011). They are also useful for understanding a community where several actors interact with an object that allows for the integration of stakeholders with different views (Fong et al., 2007).

Boundary object concepts help settle the conflicts that emerge anytime different stakeholders interact with an artefact, or attempt to work on a project (Star, 2010). Some researchers in the software development literature (Barrett & Oborn, 2010), for example, suggest that the concept is helpful in a cross-cultural software development process as it helps to shape the requirements of different user groups based on their needs and constraints. The key principles of the BOT applied in this study include: (1) boundary objects have common identities and local features; (2) different user groups have divergent viewpoints about boundary objects; (3) boundary objects are dynamic; (4) “Boundary objects require a joint field and incorporation into local practice to become boundary objects-in-use” (Doolin & McLeod, 2012, p. 574); and (5) Boundary objects enable knowledge transfer and the translation of meaning and interests, but their boundary-spanning effectiveness or role may vary across settings or times.

Furthermore, the BOT concept can be used to understand a phenomenon that can be translated, transferred and transform knowledge between communities of practice (Fong et al., 2007). The design and use of boundary objects are essential when it comes to objects that are geographically distributed. Hence, these objects can be dynamic. They can be modified and manipulated to adapt to a new context (Fleischmann, 2006). For example, a user can manipulate a boundary object, such as a requirement document, by adding or removing some information. The concept is necessary for understanding the context in which an object is employed, which may be important for platform

owners. A few researchers argue that boundary objects may be dynamic, but do not elaborate on the change process (Gal, Yoo, & Boland, 2005). How boundary objects are used depends on the familiarity of the actor groups involved in the interaction (Isind et al., 2019). This is because some types of boundary objects are more effective in some environments as compared to others (Fong et al., 2007). As such, foreign-owned boundary objects implemented in new geographical contexts can be localized to improve local user familiarity.

3.5 Application of BOT in IS Research

The theory of boundary object has been applied in IS research to investigate varied phenomena. Examples include human-to-information system interactions (Harrison, Prenkert, Olsen, & Hoholm, 2011), system design and system development (Fleischmann, 2006; Isind et al., 2019; Park & Boland, 2012), system implementation (Melville-richards, 2015), technology adoption (Fox, 2011), and systems analysis and design (Bergman, Lyytinen, & Mark, 2007). As culled from the literature, BOT has also been adopted in IS research to understand how various actors cooperate on a project, despite having conflicting interests (Stoytcheva, 2013). For instance, Fong et al. (2007) used BOT to analyse the role of system integrators by focusing on how stakeholders in a System of Systems (SoS) interact. They found that by forming effective collaborative interfaces, the different user groups will be able to design and build useful boundary objects. Gal et al. (2005) also discussed dynamic approach to understanding the nature and role of boundary objects. They claimed that boundary objects are dynamic, but the theory fails to elaborate on the change process. Although the BOT framework has been widely used in IS research, its application in the context digital platforms localization remains limited. Therefore, BOT should also be applied in more

contemporary digital platform research to explore the localization of a foreign-owned MSRP in a developing country.

3.6 Application of the BOT in this Research

From an interpretive research perspective (Effah & Debrah, 2018), this study draws on BOT as an analytical lens to understand the localization of a foreign-owned MSRP in a developing country. In this study, boundary object refers to the MSRP, while actor groups are the different stakeholders who interact with the platform. The different stakeholders are advertisers, suppliers, and customers. BOT is a useful concept to understand objects that can adapt to local needs and constraints of heterogeneous actor groups. MSRPs involve multiple actor groups with distinct objectives. The theory is therefore considered appropriate for this research as it offers rich concepts and principles for understanding MSRPs, as a boundary object.

Moreover, the theory is also useful for investigating the consequences of social interactions with other social groups (Gal et al., 2005). Therefore, since this study also focuses on exploring the consequences of using a localized foreign-owned MSRP in a developing country, the BOT framework becomes a suitable tool to investigate this phenomenon. To enable the researcher to gain more insights and understand the local needs and constraints of user groups in a developing country and how the foreign firm localized the MSRP, the researcher relied on BOT as a theoretical lens to understand this phenomenon. BOT also served as a framework to explain the interactions between users and the platform.

3.7 Chapter Summary

This chapter discussed the BOT approach as the analytical lens for this study. The chapter commenced by explaining BOT and its basic concepts. It further discussed its application in contemporary IS research and ended by stating why BOT is applicable for this research. The subsequent chapter discusses the methodology that was applied in this study to collect and analyse data to find answers to the research questions. The chapter also presents the research paradigms, research methods and the strategies that were used in this research.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

The purpose of this research has been to understand why and how a foreign firm would localize its MSRP in a developing country and the consequences encountered. The previous chapter discussed the theoretical concepts of BOT and why it is appropriate for this research. This chapter is focused on the research methodology employed in this study. It commences with a discussion on the three IS research paradigms. The chapter also highlights the justification for the choice of an interpretive research paradigm for this study. The three types of research methodology (i.e. qualitative, quantitative, and mixed methods) were also discussed. The chapter ends with data collection methods and data analysis approaches employed in this research.

4.2 Information System Research Paradigms

A research paradigm is defined as a set of beliefs and practices that guides a particular scientific work (Darby, Fugate, & Murray, 2019). It represents a basic belief that guides (Krauss & Putra, 2005) a researcher about how to investigate and interpret problems, and methods to address research questions. They represent a school of thought that informs the meanings ascribed to research data by a researcher (Kivunja & Kuyini, 2017). It can also be viewed as philosophical beliefs used to study and interpret knowledge in three perspectives: namely ontology, epistemology, and methodology (Kankam, 2019). These philosophical principles (ontology,

epistemology, and methodology) helps the researcher to understand the reality of separate social worlds (Rehman & Alharthi, 2016).

The philosophical perspective that addresses the nature of things and how they relate is referred to as an ontology whereas epistemology describes the nature of knowledge and how it is created (Saarikko, 2016). Ontological and epistemological principles create a holistic lens of how knowledge is understood and how researchers view it, and the methodological strategies used to create it. Research methodology, on the other hand, is the research design, methods or strategies, and procedures used in an investigation that is well planned to understand a phenomenon (Kivunja & Kuyini, 2017). Thus, a methodology is concerned with why, how, and what data is collected and analyzed. Adoption of these philosophical assumptions is anticipated to improve the quality of research outcomes and the creativity of the researcher. In information systems, three dominant research paradigms are usually employed namely positivist, critical realist, and interpretive paradigms (Orlikowski & Baroudi, 1991). Each of these paradigms is explained based on their separate ontological, epistemological, and methodological assumptions since each of them have their interpretations or worldview of reality (Scotland, 2012).

The thought of the positivist paradigm was developed as a truth-seeking paradigm during the latter part of the 19th century by Comte's (1896) criticism of metaphysics (Kankam, 2019). As such, the positivists' stream of researchers believes that there is only a single reality or truth, which can be determined or known by using statistical or quantitative means. This stance is held by the ontological philosophy of the positivist research paradigm. It argues that reality is not realized by our (human) understandings or senses but rather discovered and verified through direct

observations or measurements of a phenomenon (Krauss & Putra, 2005). The belief here emphasizes that following this methodology (quantitative) is the only way in which valid knowledge can be obtained (Orlikowski & Baroudi, 1991). The epistemological position of the positivist paradigm takes an objectivist stance, which is purely based on facts from the external world. This implies that researchers exist independently from the study they conduct and always ensure that there is no personal interest or bias exhibited when carrying out the study. Independent here also means that the researcher maintains no or less interaction with the research participants when carrying out the research. According to Crowther and Geoffrey (1965), positivist studies usually adopt a deductive approach to research which explains empirical observations of the real world by using hypotheses and theories.

The interpretive research paradigm is also referred to as ‘antipositivism’ or ‘naturalistic inquiry’ or ‘constructivist’ has its roots in hermeneutics, the practice of interpretation. Hermeneutics is the interpretation of thoughts in the form of texts of the author (Intgrty, 2016). Interpretive research paradigm helps researchers understand the world of human experience by asserting that reality is socially constructed (Mackenzie & Knipe, 2006). It is constructive because it largely relies on participants’ views or experiences of the phenomenon under study. The interpretive researchers also take the stance that the nature of reality or truth is acquired through social constructs such as shared meanings, people’s beliefs, and languages since people cannot be separated from their knowledge (Pham, 2018). The ontological position of interpretivism is relativism which is of the view that reality or truth of a single phenomenon is subjective and differs from person to person in terms of interpretations and cannot be determined by a single quantitative measurement

(Scotland, 2012; Pham, 2018). Hence, interpretivism epistemology is subjective rather than objective as it is with positivism.

Interpretive paradigm helps to understand a social phenomenon by encouraging a complete immersion of the researcher in the research process (Rehman & Alharthi, 2016). Consequently, researchers within the interpretivism paradigm stream are leaned toward qualitative research methods such as interpretive case study, ethnography, discourse analysis, and action research (Cecez-Kecmanovic, 2011). Unlike positivists, interpretive researchers assert that a single phenomenon can have multiple interpretations leading to multiple truths or realities. This is because ascribed meanings are based on an individual's ideological position he or she holds rather than external ideologies.

The research paradigm, realism or critical realism, is a philosophical assumption that supports the philosophical ideology of both positivist and interpretive paradigms (Guba & Lincoln, 1994). According to Hughes and Albers (1988), Roy Bhaskar is acknowledged as the founder of the critical realism paradigm. The philosophical assumption of critical realists alludes that reality exists independently of the researcher's mind or thoughts, beliefs, perceptions, discourses, and that, there is an external reality (Sobh & Perry, 2006). The ontological position of realists argues that the world is stratified or layered into three domains of truth or reality: the domain of reality, the domain of actual, and the domain of empirical (Carlsson, 2009; Nagata et al., 1988). Teller and Kock (2013) for instance, defined the domain of the real as the entities and structures of reality and the causal powers inherent to them. The actual domain is a subset of the real that includes the

events that occur when the causal powers of structures and entities are enacted, regardless of whether or not these are observed by humans. The final domain, the empirical, is a subset of the actual and consists of those events that we can experience via perception or measurement.

The epistemological notion associated with critical realism is relativism where knowledge is viewed as historically emergent and transient (Nagata et al., 1988). Relativism represents the claim that what is true for an individual or society may not be true for another social world. Researchers within this paradigm adopt adductive reasoning to explain or interpret a phenomenon (Hassan, Mingers, & Stahl, 2018). This allows the researcher to seek explanations of the problems under investigation as it employs an in-depth methodological approach. Consequently, researchers in this domain are encouraged to adopt a mixed-method research methodology (the use of both quantitative and qualitative research methodology) and data collection techniques such as interviews, surveys, and questionnaires. This is possible since retroductive reasoning applied in critical realism is inspired by adductive, deductive, and inductive reasoning. The latter two as noted earlier are adapted in positivism and Interpretivism research paradigms respectively. In summary, each of the discussed IS research paradigms provides a unique and holistic view of addressing problems in a socio-technical context (Guba & Lincoln, 1994).

4.3 The Choice of Paradigm for the Study

As noted earlier, the interpretive research paradigm is suitable for studies that seek to unearth the subjective meanings people associate with the phenomenon. Therefore, since this research seeks to understand why and how a foreign-firm would opt to localize its MSRP in a developing country,

the most appropriate paradigm to understand this socio-technical phenomenon is the interpretive research paradigm. This is because the interpretive paradigm will guide the researcher to seek knowledge about the subjective interests, needs and constraints of local users who interact with the MSRP.

4.4 Research Methodology

Research is a systematic investigation or inquiry whereby data are collected, analysed and interpreted in a way to understand, describe, predict or control an educational or psychological phenomenon or to empower individuals in such contexts (Mackenzie & Knipe, 2006). A research methodology is a technique that governs the choice of an appropriate method for data collection and analysis (Kilani & Kobziev, 2016) to systematically solve a research problem (Kothari, 1965). Methods are techniques and procedures in the form of questionnaires, interviews and focus groups used to gather data (Creswell, 2003). A research methodology is useful for establishing the structure of research, such as strategy, approach, and philosophy (Kilani & Kobziev, 2016). The types of research methodologies adopted in research studies include quantitative, qualitative, and mixed methods (Creswell, 2013).

4.4.1 Quantitative Research Methodology

A quantitative research methodology is a method or approach to research that relies on measuring variables using a numerical system, analysing these measurements using statistical models, and reporting relationships and associations among the studied variables (Lucas-Alfieri, 2015). Quantitative variables are concepts found within hypothesis or questions that can vary;

“emergency response time”, for instance, can be a variable. Quantitative researchers interpret numeric data such as percentages, interval or ratio and use items of analysis such as graphs or diagrams to test hypotheses or theories (Kilani & Kobziev, 2016). Common tools or techniques used for collecting quantitative data include questionnaires, surveys, direct observations, and focused groups. Most questions asked by quantitative researchers during data collection are closed-ended in nature with predetermined answers since quantitative philosophy is positivism. As noted earlier positivists maintain an objective stance. According to Creswell (2013) for quantitative studies, researchers adopt deductive reasoning to measure or analyse empirical data. This is because a quantitative approach requires researchers to test theoretical propositions or hypotheses generated in advance of the research process against observations that eventually lead to rejection or acceptance of the hypothesis (Mason, 2002).

4.4.2 Qualitative Research Methodology

Qualitative research is defined as a systematic scientific inquiry that seeks to build a holistic, largely narrative, description to inform the researcher’s understanding of a social or cultural phenomenon (Kumar, 2013). Qualitative research methodology relies on an interpretive epistemological and ontological philosophy to undertake a study in a social context (Guba & Lincoln, 1994; Kilani & Kobziev, 2016). Qualitative research as a situated activity locates the observer in the world or interprets a phenomenon in terms of the meanings people in the world ascribe to them. (Denzin & Lincoln, 2018). Therefore qualitative data are expressed as non-numeric (such as words, phrases, sentences, and narrations) forms embedded in human (participants’) feelings, emotions, experiences, beliefs, views or perspectives (Antwi & Kasim, 2015; Kilani & Kobziev, 2016).

Qualitative approaches to data collection, analysis, and interpretation, differ from the traditional, quantitative approaches (Creswell, 2013). The data are often obtained through a variety of ways such as personal experience and observations, focus groups, and open-ended interviews (Denzin & Lincoln, 2018). “The process of research involves emerging questions and procedures, data typically collected in the participant’s natural setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data” (Creswell, 2013, p. 22). The types of qualitative research include phenomenology, case studies, grounded theory, and ethnography (Kumar, 2013).

4.4.3 Mixed Methods

A mixed-method is defined as a research methodology that allows researchers to use both quantitative and qualitative research techniques, methods, approaches, concepts or language in a single study (Johnson & Onwuegbuzie, 2004). Philosophically, researchers within this field make use of critical realism (positivism and interpretivism) philosophies. In collecting data, both numerical and narrative data can be collected for a single study. Mixed methods research capitalizes on the strengths of both qualitative and quantitative research while strengthening their weaknesses to provide an integrated comprehensive understanding of the topic under investigation (Halcomb & Hickman, 2015). For information system researchers, Venkatesh and Brown (2013) contend that the purpose of conducting mixed-method research is to provide a more holistic insight into the phenomenon under study. This is because, through dual methodologies, mixed methods can gather complementary and detailed views of a single phenomenon.

4.5 Choice of Qualitative Research Methodology

This research seeks to understand why and how a foreign firm would localize its MSRP in a developing country and the consequences encountered. Although research may be conducted using a variety of methodologies, this study adopts a qualitative methodology to achieve the purpose above. This is because the qualitative approach takes a subjective stance to understand the meanings, views, beliefs people ascribe to a phenomenon. The choice of qualitative research methodology will enable the researchers to gain in-depth information from the participants. The choice of qualitative methodology for this research is guided by an interpretive paradigm.

4.6 Research Method

A research method can be defined as a technique or an approach used by a researcher to collect and analyse data when conducting a study (Kothari, 1965). These methods or techniques vary depending on the type of research methodology (quantitative, qualitative, and mixed-method) the researcher adopts. Since this study adopts a qualitative methodology, it is imperative to understand the types of research methods adopted in qualitative studies to collect and analyse data. According to Creswell (2013), the types of these techniques used for conducting qualitative research include ethnography, phenomenology, grounded theory, and case studies.

Moreover, ethnography is a type of qualitative research that gathers data through observations, interviews and documentary data to produce detailed and comprehensive accounts of different social phenomena (Reeves, Peller, Goldman, & Kitto, 2013). Ethnography is rooted in cultural anthropology (Mason, 2002). As such the anthropological tradition within which ethnography is

situated (Prasad, 1997) allows researchers within this discipline to immerse themselves in the natural setting or field of the participant to garner a rich understanding of a social phenomenon. Social phenomena may include the behaviour, beliefs, and actions of the research participants. Succinctly put, ethnography emphasizes the use of the natural settings or the environment of the participants as a data source. Reeves et al. (2013) postulate that rather than relying only on interview or survey data, ethnography overcomes this limitation through the collection of observations, in-depth interviews, life histories, and documentary data to gather detailed, comprehensive, and holistic social accounts about a phenomenon. The data analysis approach in ethnography is iterative and unstructured (Prasad, 1997). Despite its predominant nature, ethnography has been criticized as time-consuming and complex for analysing and making interpretations.

Phenomenology is a methodology that is focused on understanding the unique lived experience of individuals by exploring the meaning of a phenomenon (Petty, Thomson, & Stew, 2012). The researchers within this discipline obtain descriptive data of the experiences that the world has of objects and concepts (phenomena). Phenomenologists believe that the world (including people) is surrounded by many phenomena that we are aware of but do not understand. They also assert that the world we meet is full of objects and we can pick out and describe these objects, measure them, weigh them, analyse them and so on (Mingers, 2001). For this reason, the phenomenology methodology holds the concept of objectivity even though it is not a positivist research paradigm.

According to Glaser and Strauss (1966), the methodology, grounded theory is “the discovery of theory from data systematically obtained from social research.” It aims at constructing or ‘grounding’ theories from the data acquired from participants who have experienced the phenomenon under study (Petty et al., 2012). Grounded theory research follows a systematic yet flexible process to collect data, code the data, make connections and see what theory/theories are generated or are built from the data (Kumar, 2013). The most commonly adopted data collection methods in grounded theory studies include interviews, documentary data, and observations.

A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not evident (Yin, 2009). Creswell (2013) also defines a case study as “a qualitative strategy of inquiry in which the researcher explores in depth a program, event, activity, process, or one or more individuals” (p. 207). Data can be quantitative, qualitative or both (Pegram, 2000). Consequently, as a research design, it can employ all methods of data collection from testing to interview (Kumar, 2013). As such it is empirically descriptive and exploratory and can be applied in qualitative, quantitative, and mixed-method studies depending on the case being studied (Creswell, 2013; Glaser & Strauss, 1966; Harrison et al., 2017). This is because a case study follows more positivism and Interpretivism epistemology (Petty et al., 2012). According to Yin (2009) case study research is suitable in circumstances where: How or why research questions are asked, the researcher has little control over events, and finally, the focus is on a contemporary phenomenon.

This study adopts an interpretive qualitative case study as the research method. This is because this research seeks to gain an in-depth understanding of why and how a foreign firm would localize its MSRP in a developing country and the consequences encountered. Case study approach also helps researchers to immerse themselves in the study and perceive the interviewees as participants (Guba & Lincoln, 1994). It encourages the researcher to consider each participant's opinions and perspectives (Andrade, 2009). The cases explored in research can be either single or multiple. The multiple cases are used when the researcher seeks to understand more than one bounded system to the uniqueness of each bounded system. In this study, a single holistic case study is employed as the researcher seeks to investigate a specific case.

4.7 Case Selection and Fieldwork

The fieldwork for this study was done in a West African country, Ghana. The data collection was done on several occasions to enable the researcher to gather rich information for the study. In August 2019, the researcher went to the field to familiarize himself with the case organization to understand the nature of their business. Subsequently, in September 2019 there was another visit to ask a few questions that were in line with this study. The criteria for the selection of the organization as a case study for this research were purely based on selecting a foreign organization that had localized its MSRP in a developing country. Based on extensive observations in Ghana, the researcher realized that DRetail was a perfect fit for the study. Based on consultations and direction from the supervisor of this study, the researcher was able to arrange with the case organization's technical team, administrative team, and some development team members to establish the appropriate rapport between the researcher and the case organization.

The researcher sent an introductory letter to enable him to gain access to data that is required to answer the research questions. This was after when the researcher had obtained a signed letter from the lead supervisor at the Department of Operations and Management Information Systems (OMIS), University of Ghana. In October 2019, the researcher had the opportunity to sit with some staff members of the organization from the top management, middle management, and operational management level. After a few days, the researcher had to make further calls and follow up to gather other relevant information while the study was ongoing. The data collection methods used by the researcher is outlined below. The researcher also used snowballing sampling method through people he knew and acquaintances to get access to the other people in the organization who can give reliable information related to the research.

4.8 Data Collection Method

In the quest to seek answers to the research questions and achieve the research purpose, the researcher undertook several methods to collect related data to achieve this. Creswell (2013) contends that qualitative approaches to data collection emerge from primary and secondary sources. The primary data used were direct observations, face-to-face interviews, and the secondary sources of data used were documents from online portals and organization websites. Data collection lasted over four months, from August 2019 to February 2020. The data collection started with the researcher conducting informal interviews with the HR manager at DRetail to help obtain prior knowledge of the MSRP. The researcher utilized a semi-structured interview guide to gain adequate knowledge of the phenomenon under investigation. The data collection exercise gave birth to views, concepts, themes and research questions underpinning this study. However, other questions and in-depth findings come up which were not initially part of the interview guide.

Thus, there were follow up questions depending on the responses given by the research participants. The interviews were conducted at the premises of DRetail in Accra, Ghana. The researcher also used the platform to sell his slightly used phone just to have an in-depth understanding of how the MSRP works.

4.8.1 Interviews

Due to the qualitative stance of this study, it was appropriate to employ a semi-structured interview to obtain in-depth insights into the phenomenon being understood. All stakeholders who were actively involved in the development of the platform were interviewed to better understand the phenomenon of study. An interview guide guided the interviews with these stakeholders. The interview guide constituted a list of open-ended questions around relevant topics tied with the theory and research questions. The interviewed stakeholders were from DRetail (the case organization) and the users (customers, advertisers and suppliers). The interview was interactive and occurred on several occasions to gain rich insights into the phenomenon. The researcher made notes on responses and further asked follow-up questions from their responses. Table 4.1 below shows a detailed account of the number of respondents the researcher engaged in gathering information for the study.

Table 4. 1: Summary of Interviews Conducted

Participants/Roles	Number of Interviewees
Localization Team	3
Suppliers	5

Advertisers	1
customers	5
Ad listing department	3
Customer support staff	1
Review team	4
Managers	2
Total Number of Interviewees:	24

Twenty-four participants were interviewed for the study, which comprised of the organization and the local stakeholders. Out of these were ten customers and suppliers, three members of the localization team, two managers, one customer support staff, and four review team members. Aside from note-taking, in some instances, interview proceedings were allowed to be recorded. The interviewees were also assured that the voices recorded would by no means be made public to ensure their security and privacy. Interview recordings were therefore transcribed and notes were well organized to make it easy for analysis. A question regarding the localization process was also asked. Leading questions were asked about the reasons for the localization, possible upgrades and expectations of the MSRP. In-depth information was obtained which provided the researcher knowledge about the existence of similar initiatives in other developing countries (i.e. Nigeria, Sri Lanka, and Bangladesh). This enabled a better perspective and background of this research.

4.8.2 Documentation and Physical Artefacts

In addition to the above methods of data collection (formal interviews and informal interviews and discussions), the researcher utilized other methods of collections. Some of the interviewees provided the training manuals, flyers, brochures, magazines, and relevant documents. The researcher also came across relevant documented news publications and archival records kept on the organization's websites. The secondary data collection method enabled the researcher to gain insight into the manual process and the experience of the phenomenon.

4.9 Data Analysis

The data analysis was interpretive and inductive (Effah & Nartey, 2016) and was guided by the BOT theoretical framework. The purpose of the analysis was to 1. Identify the rationale that informed the localization of the MSRP. 2. Understand how the localization process was carried out. 3. The consequences of using localized foreign-owned MSRP. Following the interpretive perspective, data analysis and data gathering occurred simultaneously without a structured or separation approach. Using the boundary object as a theoretical lens, the researcher adopted the interpretive mode of thematic analysis (Braun & Clarke, 2012; Green et al., 2007; Peterson, 2017). The inductive nature of the analysis enabled the researcher to identify the themes from the data gathered. The themes were developed using the BOT as a theoretical lens.

The researcher also adopted the inductive process that requires immersion in the phenomenon. Information gathered were relevant to understand foreign-owned MSRPs, the localization process and its consequences. The data collection methods such as interviews, observation and documents

were employed. The interviews were recorded and thoroughly read by the researcher for in-depth understanding thereby developing the themes in relation to the research theory. Where necessary, the researcher had to get in touch with the participants for further inquiries and information. The aftermath of such interactions was utilized to improve the case analysis and the research findings.

4.10 Chapter Summary

This chapter discussed the methodology employed in this study. It commenced by explaining the predominant IS research paradigms as well as the justification for the choice of the interpretive research paradigm. The chapter further threw light on the choice of research strategy, which is a case study and stated why it is appropriate for this research. Moreover, the fieldwork, case selection, data collection methods and data analysis were all explored in the latter part of the chapter. The subsequent chapter gives the findings of this study based on the data collected by the researcher.

CHAPTER FIVE

CASE DESCRIPTION

5.1 Introduction

The preceding chapter discussed justifications for the use of the interpretive research paradigm for this study and further justifies reasons for employing the interpretive case study as a method. The criteria used to select the case organization, methods used to collect the data and the conducted fieldworks were explained. This chapter presents the case organization and its findings as well as the case description. The chapter further presents information on the initial plans, the experience had during the use of the foreign-owned MSRP, localization, and the aftermath user experience with the localized platform.

5.2 Case Study Organization

The case organization, DRetail (pseudonym), is a Swedish-Owned tech company founded by a former Skype employee in 2011. The organization has a significant number of its technical team in Gothenburg, Sweden and Bangalore, India. The organization operates under the laws and regulations of Sweden with over 600 employees all over the three countries they currently operate. As such, advertisers, customers and suppliers who use DRetail's MSRP agree that Swedish courts will have jurisdiction over any dispute or claim relating to the use of the platform. In terms of operations, DRetail only deploys its MSRP in developing countries. As of 2015, it had deployed its MSRPs in Bangladesh, Sri Lanka, Ghana, and Nigeria. However, in 2017, the organization's MSRP failed to survive in Nigeria, owing explanations to expensive data bundles, massive online fraud, and unstable electrical power supply. In the case of Ghana, the MSRP continues to connect suppliers and customers as well as advertisers. About 25% of goods traded on the MSRP are new

and sold by individuals and smaller brick and mortar retailers. The remaining 75% are sold by individuals and are mostly slightly used items. The MSRP does not specialize in any specific category. The products listed on the platform include everything from mobile phones to clothes, cars, huge vehicles, land, properties and jobs. The vast majority of traffic and content comes from phone dealers, followed by dealers in cars and vehicles, jobs and property. For a long time, DRetail was free for everyone, and suppliers could post unlimited ads at no cost until the recent introduction of service costs. The main stakeholders of the platform include advertisers, customers, and suppliers who engage in retail transactions.

Today, DRetail's MSRP is considered the largest and most trusted retail platform in all the areas it has been deployed. In Ghana, for instance, DRetail's MSRP has millions of monthly visitors, of which customers and suppliers form a greater percentage, followed by advertisers. According to DRetail, at the time of the initiative, the socio-technical environment of Ghana was characterized by both enabling and constraining factors. For instance, the organization realized a significant increase in Internet penetration and the use of smart devices in schools, churches, cafes, hospitals, buses, homes and offices. Second, the absence of MSRPs in Ghana at the time was a major motivating factor for the organization to deploy its MSRP and lead the market. The Swedish firm recognized these developments as opportunities to deploy its MSRP in the country. The following is an excerpt of the CEO's speech explaining why they decided to operate in Ghana as was captured in a local newspaper article:

The Ghanaian market is developing at a phenomenal rate. This coupled with the increase in Internet penetration and usage in the country indicates that there have

plenty of opportunities in this country. As the country continues to grow and develop, the platform will grow parallel to it. As Internet usage increases in schools, homes and among mobile phone users, we at DRetail sees an opportunity to introduce something different, interesting and beyond traditional classified advertising to Ghanaians. (Press Statement - Myjoyonline.com, April 2013).

The MSRP is a virtual platform where products and services are advertised and business transactions are completed by parties meeting physically. Thus, business transactions are completed through face-to-face physical contact. The platform allows users to seamlessly upload ads and have them displayed within a few minutes. The ads usually go through a rigorous verification process to ensure that suppliers do not list fake items on the platform. The following are some of the benefits of the MSRP to customers and suppliers in Ghana: online branding of products and services, meeting changing customer demands and consumer preferences. With the platform, customers have many options to choose from at a lower cost. They can only sit in their houses and search for items online.

On the other hand, the socio-technical environment of Ghana had some constraining factors that the organization had to face. For instance, trust in e-payment facilities was not available. There were limited e-payment platforms at the time of deployment. A cash-dominant system is preferred over e-payment services. Another challenge was the lack of adequate logistic structures. There was an unstable supply of electricity and a high cost of Internet charges. Local banks were unwilling to process online payment transactions. However, MSRP transactions had to be successful with

the availability of these structures. Though challenging, DRetail decided not to give up on deploying its MSRP in the country.

5.3 Initial Planning and Deployment of a Foreign-Owned MSRP

DRetail officially began operations in Ghana in 2013. At the time of deployment, competition for MSRP provision in the country remained very low despite the growing Internet penetration and use of smart devices. According to the IT manager, the limited availability of MSRPs and the welcoming culture for digital platforms in the country were the key factors that motivated them to deploy the technology in Ghana. An excerpt from a transcribed interview from a member of DRetail's management team described this as follows:

We realized the vibrant youth and most of all, the warm and welcoming culture for retail platforms.

DRetail was optimistic about its MSRP, believing it to be the most convenient option for Ghanaian customers, suppliers and advertisers to perform retail transactions. Management at the time believed that the MSRP was safe, reliable and easy to use. Their plans for advertisers and suppliers were to help them target the right customers for their services. As such, they believed that the MSRP would effectively attract the right customers to suppliers and advertisers. For customers, DRetail hoped that they would be interested in searching for goods and services that match their needs and preferences. The marketing manager of the organization explained the rationale behind the initiative as follows:

People wanted a platform to sell their home-used items, but finding interested customers was a big problem.

Management at the time expected that suppliers, advertisers, and customers in Ghana would accept the MSRP to sell, advertise, and buy goods and services respectfully. To meet these expectations, DRetail transferred its MSRP deployed in Bangladesh to Ghana. According to them, it would cut down the cost of deploying the technology since the platform had already proven useful in similar environments. Moreover, it did not occur to them at the time to consider the constraints of the local users, and the contextual differences and how this may affect their use and performance. After management had finished planning for the deployment of the MSRP in Ghana, they formed a technical team to deploy the platform. The technical team constituted the IT manager, internal software developers, system analysts, quality assurance, and digital marketers without the active involvement of intended users. The team agreed to brand the platform with the largest spoken local language in Ghana, Twi. The domain name, for instance, is named in the Twi language.

The deployed functionalities were similar to those of Bangladesh's. The development team had no room to make suggestions or effect any changes that would improve the platform. An employee developer at DRetail narrated his frustration as follows:

There was no space to breathe, you could only do what the platform owner(s) and the IT manager wanted you to do. The platform owners were virtually clueless about what the people wanted. Never supports change or anything innovative.

Despite these challenges, the team focused on: (1) making some initial modifications and translation, (2) disabling some functionalities that were not required in the Ghanaian context, for example, foreign e-payment gateways, (3) installation and (4) activation. They hoped that the platform would meet the needs of all suppliers, customers, and advertisers in the country. The deployed MSRP at the time came with several modules such as an ad listing module, user account management module, listing management, automatic verification, search functionality, and a banner-advertising feature. Even though the deployed MSRP was transported from another country, no major modifications were made to the platform. Most of the functionalities were exactly as those deployed in Bangladesh and Sri Lanka. The only changes made to the platform during the initial deployment stage were changes made to the phone number formats, currency symbols, and names of locations, language, and the use of Ghanaian terminologies. The name for the MSRP as well as the domain name for the website version was rebranded in the Twi language as stated earlier.

In addition, at the time, DRetail deployed the platform; online payment infrastructure for MSRP transactions was limited. Bank credit and debit cards, for instance, were limited to ATM and POS transactions only. As a result, payments for online transactions were even made in cash, making the country more of a cash economy. While the foreign-owned MSRP supported e-payment methods, Ghana lacked readiness for online payment methods. As such, DRetail disintegrated the existing e-payment gateways that accompanied the foreign-owned MSRP. A member of the technical team commented on the reasons for the modification as follows:

We were hampered by the absence of electronic payment systems. Many people were comfortable with the cash-on-delivery system for security reasons. We had to adjust because if you do not have a working payment method, you cannot control the logistics.

The next section provides a detailed description of the foreign-owned MSRP that was in use and the loopholes encountered. It further provides a detailed description of the foreign-owned and its various functionalities that were not needed and the once the users needed but were missing.

5.4 Use and Experience of a Foreign-owned MSRP

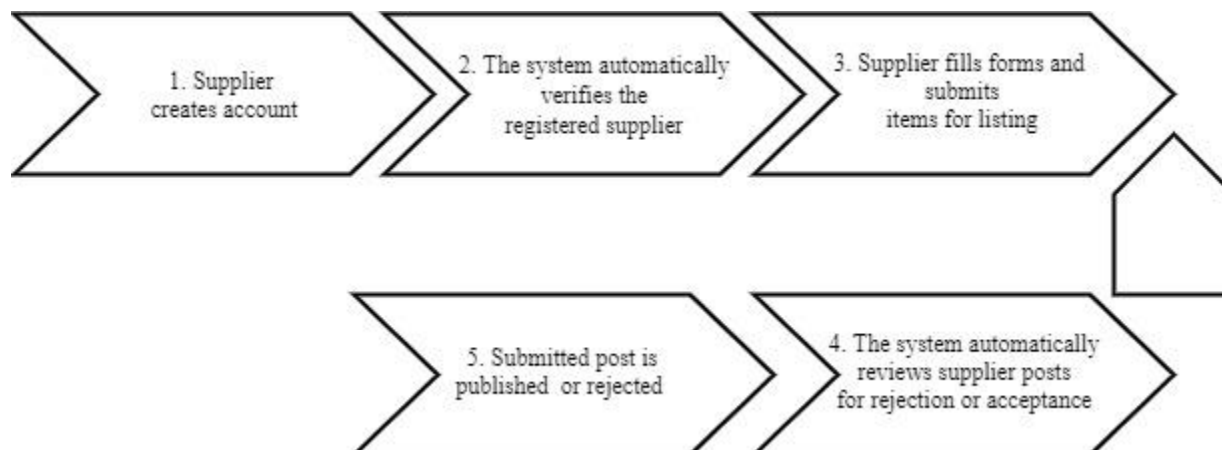
DRetail formally launched the MSRP on 1st February 2013. The marketing team moved to create public awareness to draw interested suppliers, consumers, and advertisers to the platform after the successful completion of the planning and deployment stage. Immediately after the launch, the organization established a new office in Accra and hired local employees. They were committed to educating the public about the values the platform would provide. DRetail also collaborated with Ghana's biggest local news website, www.ghanaweb.com, to expose the platform to over eleven million people. The following is an excerpt of the managing director's reason for the initiative:

Partnering with GhanaWeb is one of our many efforts to try and make the platform accessible to more people locally so that they can experience the service of buying and selling and add value to their lives.

In addition to the above strategies to attract users, the digital marketing team also used search engines to optimize the platform and conducted social media promotions to deepen awareness. The newly formed staff at DRetail interacted with local market women and men, and commercial drivers, also known as “Trotro drivers” to explain to them how the platform works and the benefits. Because of its local name, most people did not find it difficult understanding the concepts behind the platform. However, the initial user experience aroused positive and negative comments from suppliers, customers and advertisers who patronized the platform. Some users expressed mixed reactions because they felt that the platform could not meet some of their needs.

On the positive side, the MSRP succeeded in creating convenience for the local user in Ghana. Suppliers in the country, for instance, expressed their joy and satisfaction for easy access to customers waiting to buy home-used products. According to some suppliers and advertisers, they were happy because there was no need for them to rent physical stores and launch their retail platforms, which comes with a cost. The suppliers were also happy about the free unlimited ads they could post. It was easy to create an account and get an item published online for sale. The platform at the time could verify user credentials automatically, verify the ad credibility automatically and list items without having to go through manual procedures. Therefore, for suppliers, if they need to save time when executing retail transactions, the platform was the fastest means.

Figure 5. 1: Ad Listing Process during the Pre-Localization Era



Source: author's construct (2020)

Figure 5.1 shows a diagrammatic representation of the pre-localization era, which was characterized by automated processes with no interference and delays by the manual process. As indicated in the diagram, the ad listing process constituted five steps as follows: (1) the supplier creates an account; (2) the platform automatically verifies the supplier; (3) suppliers fill the form and submit items for listing; (4) the system automatically reviews supplier ads and rejects or approves; and (5) submitted ad is live. The suppliers and advertisers were excited about the listing process because of how fast it was. For the customers, they were happy to make great deals of choices at their convenience without having to spend extra resources like time and money on transportation in search of items to buy. They were pleased with how possible it was to search for slightly used smartphones at affordable costs compared to having to go to local phone shops.

The platform also had banner sized advertising spaces for local advertisers who wanted to promote their local brands. The space for displaying banner ads was strategically positioned at eye-catching

places for broader visibility. According to the advertisers, the banner ad space functionality was highly effective and yielded impressive results because their ads were served to relevant customers. A manager of a real estate company in Accra commented on how using the platform to advertise their services improved his business as follows:

I have been running a banner ad on the site [MSRP] in the last 7 months and the results are very impressive. Because the platform is categorized, our banner on the properties section is relevant to the clients we are targeting who click on the banner to see what we also have on our website. Visitors tend to spend more time looking for what they intend buying on dretailgh.com compared to the other websites we advertise with which is very good for our kind of business.

On the negative side, after a few months of operation, DRetail received reports on perpetrated fraud in the platform. Some of these reports were the publication of cloned ads, false information requests, and fake service charge requests. The users encountered these problems at the time because the platform at that time did not have enough security features. Another set of reports showed that some customers and suppliers had disputes when exchanging products and payments offline, making the platform unsafe for most affected victims. Fraudsters took over the platform as the modus operandi to defraud innocent traders. Over time, the platform began to witness low patronage because the stakeholders began to withdraw their service over fears of being victimized. Another challenge was that the search filters on the platform could not display searched items accordingly. Users had difficulty searching for items because the search function could not cull

items available in their commutes. A member of the technical team recounted the challenges encountered as follows:

We faced challenges from suppliers and supplier who were advertising cloned products. Some people posted multiple ads against the same phone number with the same content, but our system could not block such ads. People could post an ad with someone else's phone number just to harass them, something that occurred quite often.

Excerpted from customer reviews on the Google Play Store reported some of the challenges as follows:

I appreciate the efforts of the developers of this app, but they did nothing to prevent scammers and thieves from robbing innocent people. I now hate to hear the name of this app. The developers had good plans but failed.

The negative comments affected the public's perception of the platform. Most users at the time called for a complete overhaul of the platform. The customer support unit interviewed some users and the public. From the interviews, they found that many people, especially those in rural communities, had difficulties accessing the platform because of poor Internet connections and the high cost of data charges. Since 2000, Internet penetration and access in Ghana have improved through broadband and wireless services. According to the International Telecommunication Union (ITU), for instance, broadband access in Ghana increased from 29.3% in 2010 to 39% in 2014, making Ghana one of the leading countries with Internet access in West Africa (ITU, 2020).

As a result, several organizations and individuals, especially in urban areas, gained Internet access. Nonetheless, Internet services remain expensive and sometimes unreliable due to intermittent power supply and low bandwidth, as stated by one of the technical staff. In an interview with the IT manager, he recounted their frustration about the challenges with Internet services in Ghana as follows:

As I said earlier, the data cost is too high and limits the growth potential of the market. If you look at the size of Ghana and online activities, there is a big discrepancy. Before we can recoup returns on our investment, there has to be a drastic reduction in the cost of data.

The IT manager revealed that they were worried that the country's expensive Internet services would affect their investment returns because they encountered a similar situation in Nigeria. This situation influenced the performance and use of the platform. In addition, a member of the technical team revealed that they received reports that some users only have 2G networks available in their communities. He also noted that some of the users complained that they did not have the luxury of switching between cheap and expensive ISPs in their communities. This means that if users cannot afford the services of a particular ISP in the community, they will not be able to access the platform. Some of the users revealed that on mobile phones, the platform runs in the background, loads many images, and pre-fetched attachments/contents, and never respected metered networks. It was obvious that these issues caused the MSRP to consume more bandwidth.

According to the head of the digital marketing department, they could not generate enough revenue for the organization. He said their expectations that the local users for them to quickly integrate some multiple revenue models like sales of goods, transaction fees, would readily embrace the platform and service subscription fees failed. He recounted that the only way they generated revenue was through the Google banner ads they placed on the site. The biggest challenge was that the revenue they generated from ads served by Google was not enough to sustain the business in Ghana. They also attributed the inability to generate revenue to the lack of online payment services and logistical infrastructure in the country. They complained about low patronage by suppliers and customers owing explanations to the increased takeover of the platform by fraudsters and scammers. According to the head of the digital marketing department, some customers complained that they could not see the listed products from different dimensions. This led to people being reluctant to buy products advertised on the platform for fear that they may be fake.

Based on the challenges encountered with the foreign-owned MSRP, management decided to localize the platform. They decided to address all the issues they encountered by localizing the MSRP. The goal this time is to adapt the platform to environmental conditions while considering the needs and constraints of local users. The next section provides a detailed description of the functionalities incorporated into the platform during the localization era.

5.5 Localization of a Foreign-Owned MSRP

Several reasons triggered DRetail to localize the MSRP. According to the IT manager, after the foreign-owned MSRP failed to meet the major needs and constraints of the user groups in Ghana,

management decided to localize the MSRP. The decision was based on four main aims: (1) respond to fake ad listing; (2) offer convenience to users by making access to the platform easier, faster, and cheaper; (3) make the platform safer for users and eliminate risks of meeting unknown people; and (4) to adapt to later changes in the local mode payments. A member of the technical team explained that the only way to address the challenges encountered is to develop and incorporate new features. He added that was the best way to provide the value the users in Ghana expected from them. In an interview with the quality assurance officer, he explained the strategies they used to address the numerous challenges that confronted the MSRP as follows:

As the online market industry continues to evolve in Ghana, it is important to us that customer trust is established and maintained. Our users must see a clear and measurable growth in their businesses. This can only be achieved by adding more valued services to what existed.

A member of the technical team explained that following management's decision to localize the platform by incorporating new functionalities, they formed a localization team. After several meetings, management agreed to include local user groups in the localization process. Therefore, the localization team consisted of the IT manager, internal software developers, system analysts, quality assurance, digital marketers and customer support departments. A member of the customer support unit explained the roles they played as follows:

We have a department mainly set up to collate customer experiences and check quality standards that inform improvements on the platform. We have, for

instance, received issues of fraud, and though they happen off the platform since we do not accept payments online, it informed a feature where tips on how to be safe on the site per the category being visited are published between posts to remind people of the possibility of fraudsters.

The introduction of the customer support unit encouraged the active involvement of local users in the localization process. Since the localization team comprised people from both DRetail and some local users, they collaborated in terms of customization and other technical aspects so that the platform works perfectly and suits their needs. The customer support unit was tasked to solicit user feedbacks regarding the performance, views and perceptions people had about the platform. The unit dwelt on users' reviews and comments solicited from sources such as Google Play Store, Apple Store, Facebook, and YouTube. Members of the unit also had the opportunity to interview some local users who had or were yet to use the platform.

According to the IT manager, they needed a platform that meets the local user needs and constraints, so the best way to achieve that was to involve the users throughout the requirements generation process. He explained that the specifications are a system that contains a local currency symbol (Cedi sign) and local terminologies understood by the users. The team conducted a requirement specification exercise to identify which functionalities to develop and incorporate and which modules of the platform should be disabled.

The information gathered was transformed into a specification document and presented to management. The drafted report contained users' frustrations, problems, and suggestions about

how the platform should be designed. Upon management's approval of the specifications, the organization officially initiated plans for the localization of the platform to address the challenges raised by the local user groups. A member of the technical team explained the need for these actions as follows:

Our platform thrives more on customer experience, suggestions, and trends from other sister markets, so it was important to heed the calls of the stakeholders. We considered customizing the site [MSRP] to ensure that our users receive a hundred per cent localized experience.

The report led management to settle on six features that needed to be added to the platform to fix the persistent problems. The reasons for adding these additional roles were to satisfy local consumers, suppliers and advertisers' specific needs while considering their constraints. A member of the technical team revealed that they needed a secure, robust platform that could address the risk of online retail trading in Ghana. In an interview with the head of the technical team, he explained the measures they took to address the problems with the original MSRP they deployed earlier as follows:

We introduced several mechanisms to stop people from misusing the platform. We also released several functionalities to deal with the risks that our customers encounter and the challenges we faced as a start-up in the country.

The integrated functionalities initially included functionality for ordering products, membership, user verification system, fraud-awareness functionality, and fraud-reporting functionality. In 2014, the localization team incorporated fraud-awareness functionality, which was designed to create awareness of the tricks and strategies used by fraudsters to victimize customers. The other function of the fraud-awareness feature includes informing users on fraudulent activities such as unrealistic prices, extra fees, request for advance payments, and request for personal information. The localization team continued to implement fraud-reporting functionality. This added functionality allowed customers to report listings they find contrary to the standards, rules and norms of the platform. With this new functionality, customers can report fraud, spam, offensive, duplicate, and sold items for the technical team to respond. Another functionality the localization team incorporated is the “membership” feature. It ensures that only verified suppliers and advertisers obtain a bigger presence and growth on the platform.

In 2018, the product ordering functionality was developed and incorporated into the MSRP to further deal with fraudulent activities that occur offline. The rationale for incorporating the functionality is to provide a completely safe MSRP for the local users. Initially, this feature compelled DRetail to adopt drone technology for quick, safe, and reliable delivery mechanisms. However, the decision to use drones was not approved by the Ghana Civil Aviation Authority (GACC), for reasons that though it may ensure a safe and secure delivery method, the country is not ready. To ensure effective implementation of the functionality, management contracted DHL, a trusted delivery company in Ghana to provide its traditional logistic services to enable the organization to better satisfy its clients. A member of DRetail’s management explained this in an interview as follows:

Drone delivery requires government approval and safety assurances from the Ghana Civil Aviation Authority so the project was halted. We then had to incorporate the product ordering feature. When you click “Buy Now” we take care of the rest of the process. So the customer does not have to take the risk of going and meeting an unknown person.

During the various stages of the localization process, acceptance testing was conducted with regard to user demands, requirements, and business processes to find out whether or not the developed functions satisfy the acceptance criteria of the users in Ghana. To further eliminate fraudsters, build credibility, and trust in the platform, management moved forward to incorporate a manual verification feature into the platform. This initiative was intended to relatively remove anonymity and encourage user and transactional transparency in the platform. According to a member of the technical team, suppliers and advertisers expressed concerns that the new verification system was too rigorous and delay the entire ad listing process.

Therefore, they had to limit the functionality to some specific categories. He added that for suppliers and advertisers who post their products in categories like properties, vehicles, and electronics (only expensive electronics, e.g., Smart TV), they were required to pass the stringent verification process to have their items listed on the platform. In an informal discussion with a member of the customer support unit, he shared excerpts of a blog post made by a supplier who expressed his disappointing experience when he had to sell a car as follows:

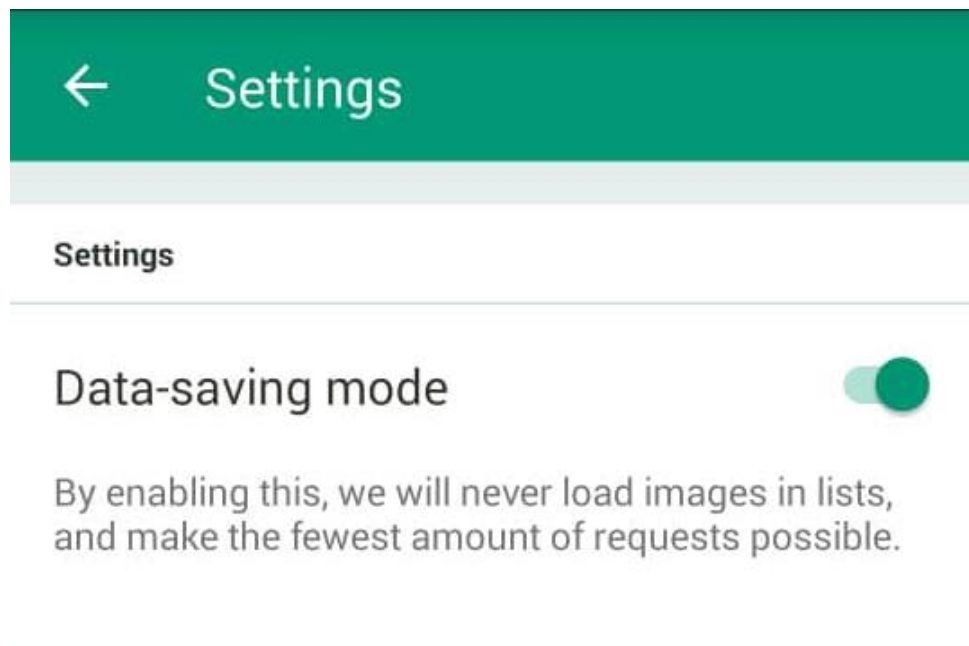
DRetail has moved to put in place the ID verification system but alas, it is a little too late because it has slowed down the process entirely and the trust element has been reduced to an all-time low. I listed a Nissan Murano on the platform for over 3 weeks now and not even a single call received which is an oddity.

Even though the verification process slowed the entire ad listing process for suppliers and advertisers, it restored trust and credibility, which attracted many customers. Furthermore, as part of localizing the platform, the localization team developed and incorporated the data-saving functionality. The IT manager explained the rationale for deploying the data-saving functionality as follows:

We are the first in the market to launch a data-savings functionality. By simply enabling the data-savings mode in the settings of the app, everyone is expected to access the MSRP faster, easier and cheaper.

The data-saving functionality was developed and integrated to allow users to switch the platform to a data-saving mode to make the platform cheaper, easier, and faster to access. The Data Saver feature can be turned on or off by the user. If enabled, the platform will not load unwanted product images, enable lower resolution for remaining images and limit bandwidth consumption. Figure 5.1 shows the data-saving functionality.

Figure 5. 2: Data-Saving Functionality



One of the technical team members explained that another reason that triggered the organization's decision to localize the MSRP was that the digital economy has paved way for everyone to exchange value online. He recounted that in 2017, the mobile money service appeared to be one of the most pervasive means of making online payments. Therefore, how online service charges are paid has become simple and convenient. It was obvious that the original MSRP lacked functionalities that would generate revenue for the organization. According to the digital marketing manager, the membership functionality introduced to allow users to have a bigger presence on the platform so that they can reach more customers. He added that the membership packages are specifically designed to give suppliers and advertisers the tools they need to expand their businesses and increase sales through the platform. He explained that despite the great experience and the benefits they have added to the platform, they had no means to charge the users.

The manager noted that MTN Mobile Money alone grew from a subscriber base of about 7,000 in 2015 to about 4.8 million at the end of July 2017. As a result, several organizations and individuals in the country were fast appreciating mobile money method of payments. This enabled them to incorporate e-payment gateways to enable them to generate revenue from users who sign up for the membership functionality. The digital marketing manager recounted why they had to incorporate e-payment services as follows:

If you are facing two problems and one is removed, the chances are that with the least available means, you can resolve the other problem. For a long time, we ran on a cash-on-delivery basis because we had no option. But we had to also embrace the new trend available so we give customers the option to pay with Mobile Money and even Visa Cards.

In an informal discussion with one of the technical team members, he explained that considering the cash economy, then there was no way they could ask people to come to their office in Accra and make payments before their ads can be listed. By that, DRetail also had no chance of generating revenue from the business, he added. The next section discusses the aftermath user experience with the localized MSRP.

5.6 Post-Localization User Experience of the MSRP

As of 2020, the team has incorporated new features into the MSRP to enable the organization to adapt to the needs and constraints of local users. The intention to provide a more localized experience was achieved through the integration of new local functionalities. The localized experience means an MSRP that is safe, secure, trusted, fast, and more convenient. However, the localization and use of the localized MSRP ensued both positive and negative reactions from the local customers, suppliers, and advertisers. On the positive side, localization has led to a significant reduction in fraudulent postings by some advertisers and suppliers. According to DRetail, they achieved this goal because of the several functionalities they incorporated to improve the security of the MSRP. The IT manager said:

Our membership package and the manual verification process have increased the credibility of listings and also increased sales for our sellers [advertisers and suppliers].

The head of the digital marketing department narrated how impactful the product ordering functionality they introduced has been as follows:

In recent times, DRetail has launched product ordering functionality, a service that puts together all the best deals on the platform and comes with a delivery service thereby ensuring convenience and the best user experience for consumers. The patronage of the product ordering functionality over the past few months shows that our consumers are satisfied with this service.

He emphasized that when they compare their recent data to the past, it shows that their users are much more satisfied now than before. For advertisers and suppliers, the platform has now improved the branding of local products and businesses to not only Ghanaians but also people from neighbouring countries who are interested in the Ghanaian local products and services. They indicated that even though products like Kente cloths are local fashion wear, surprisingly, they have been able to discover customers outside Ghana who has an interest in the products listed on the platform. The numerous added functionalities improved the credibility of products and services listed on the platform. Customer patronage increased because they were now assured of the safety they wanted. A category manager said:

Being a member means that you expose your business to Ghana's largest online marketplace with approximately 30 million-plus page views, businesses that list on our site get more responses and can sell fast, no matter the product because more people from all walks of life get to see them regularly.

The head of the digital marketing department also indicated that because of the added functionalities, the organization now has many innovative ways through which they generate revenue. He cited the product ordering and membership functionalities as an example of added features that did not only helped to resolve user concerns but also became tools for revenue generation. Staff in the marketing department indicated the positive outcome of the localization exercise as follows:

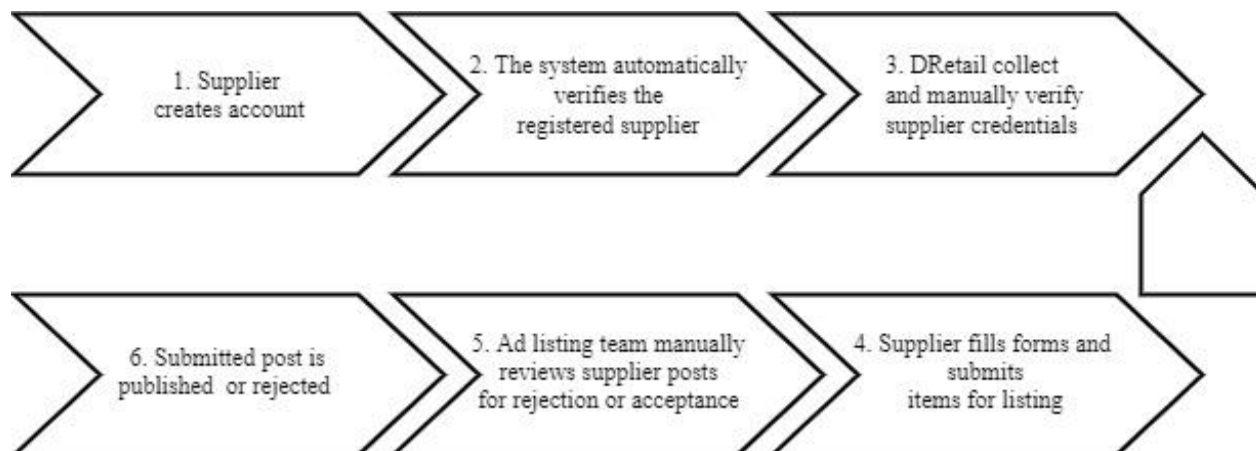
Because of the added features, for almost two years, we have grown our membership base and they are paying us a monthly fee, which varies depending on the category. We now have over three thousand paying members and that is our biggest source of revenue.

In addition, for some suppliers and advertisers, the localized platform has extended the entire listing process even though it had eliminated fraudulent postings. A supplier, during an interview session, expressed his experience with what causes the delay on the platform after it was localized as follows:

The app now asks sellers to come to their office to verify their identity. It is ridiculous in 2020 when there is email. How do you expect thousands of customers to come to your office? The phone number we use to sign up is registered and can immediately tell you if it corresponds.

The cause of the delay was largely attributed to the introduction of the ID verification system that requires suppliers to visit the premises of DRetail to complete the listing process. As such, suppliers who list cars, huge vehicles, and properties as stated earlier experienced the delay. For suppliers in general, as part of the organization's measure to prevent fraudulent transactions, ads are now required to be verified manually apart from using the SMS verification feature. This also caused delays in the ad listing process as shown in figure 5.3 below:

Figure 5. 3: Ad Listing Process in the Post-Localization Era



Source: Author's construct (2020)

Figure 5.2 above illustrates the time delaying the listing process of the localized foreign-owned MSRP. As shown, the process increased from five steps to six steps when compared to the ad listing process during the pre-localization era.

In addition, according to the IT manager, they encountered some challenges in using the manual verification system because they had a limited number of reviewers while the number of ads posted daily was increasing. The manual approach was very tedious and time-consuming because the numbers increased. He explained that when suppliers post products and services to be listed on the platform, it has to be reviewed by the quality assurance team and forwarded to the ad-listing department for publishing. For some suppliers, this delay reduced the amount of money they used to make on the platform because the ads are manually verified they are sometimes rejected with claims that attached images are fake. A member from the ad-listing department explained that because there was a need to speed up the ad listing process, management hired additional employees. He explained this as follows:

A large portion of the employees is engaged with manually checking who is advertising and verifying that what they are selling exists and is being sold at a fair price.

Finally, interesting accounts from some members of the technical team described the case of localizing the MSRP in Ghana, as one that is challenging, characterized by illogical constraints, and unintended needs. The developers complained of long working hours and the fact that they were made to work with a quality assurance team that had no idea about what the users wanted. A developer explained that most of their time goes into explaining to the quality assurance team and management what functionalities should be released. He added that local market challenges could sometimes be tough and not logical to work with. Because of this phenomenon, working with calendar fixed goals is always colliding with reality on the ground. The technical team explained that since DRetail began operation in Ghana, the environmental conditions, needs and constraints of the users influenced innovations in the online retail sector. This is because they always had to find innovative ways to save their customers time and money while creating more opportunities for them.

5.7 Future Expectations

The IT manager added that since the platform is adaptable, there is always room for modification. Despite the past failed attempt, the organization has already unveiled a futuristic plan to deliver by drones. He revealed that delivery by drone is an audacious plan that will require a lot of research and safety testing and approval from the GCAA, but they have leapfrogged the rest of the players

in Ghana's online retail industry by running its first tests on drone delivery. If implemented, management expects that they might not need to hire many deliverymen or costly logistical services. The biggest boon may be to customers, who could be able to receive their orders more quickly, depending on where they live.

Delivering by drones through the product ordering functionality can relieve customers, advertisers and suppliers of the inconvenience of traffic and the physical distance that exists between them. This is just another example of the value that DRetail strives to provide its users in the future. Management claims their customers are excited about the added functionalities but they will be adding more depending on what users and the environment demands from them and they are very optimistic that drone deliveries are one of the many ways they can improve on the user experience by not just cutting down the service cost but reducing the delivery times as well.

They further indicated that the advent of solar power is a less well-documented technology, but it is likely to have a similarly huge impact on their business. One of the biggest problems they faced as a tech company in Ghana was that they often struggled to find a regular and sustainable energy service especially at the time they began operations in the country. This is because without power their users are always unable to connect to the Internet and their sales and communications channels are severely hampered. The organization is very optimistic with the recent launch of several solar power initiatives in Africa; there are hopes that MSRP activities will be more successful.

5.8 Chapter Summary

This chapter began by presenting a background description of the case organization (DRetail). This captured the history, mission, vision, operations, and staff information about the organization. The chapter also discussed the various opportunities the organization utilized to deploy its MSRP as well as challenges faced. It further explained the issues that emerged during and after the initial development process. The post-localization experience was also narrated. Discussions on the reasons for adapting the MSRP and the consequences encountered thereof were also captured in this chapter. The next chapter presents the analysis of the findings in this chapter.

CHAPTER SIX

CASE STUDY ANALYSIS

6.1 Introduction

The purpose of this research has been to understand why and how a foreign firm would localize its MSRP in a developing country and the consequences encountered. The preceding chapter provided a detailed description of the selected case for this research. This chapter, therefore, presents an analysis of the findings from the case description (previous chapter). The research adopted the BOT as a theoretical lens for the analysis. This chapter begins with an analysis of the MSRP as a boundary object. The chapter further presents the common and local features of the MSRP. The chapter ends with an analysis of how the MSRP was adapted to meet the local needs and constraints of the actor groups.

6.2 BOT Analysis of MSRP

From the case description, the MSRP is a digital platform considered as a boundary object. The MSRP has common and local features used by heterogeneous user groups. The user groups include suppliers, customers, and advertisers. The local features are the dedicated functionalities incorporated to serve the unique interests of each user group. The common features, on the other hand, are designed to serve the common interests of the distinct user groups. The expectations of customers were that they needed a safe and trusted platform. For instance, the product ordering functionality is a local feature is designed specifically for customers to have ordered items delivered to their doorsteps. For the case organization, this functionality was intended to cut

fraudulent people off the platform. Suppliers expected the MSRP to help showcase their products and services and reach the right customers. Advertisers perceived the MSRP to be the most expedient and effective way to promote local brands and expand their customer base to the international community. The table below summarizes the common and local features of the MSRP as found from the case findings.

Table 6.1: Common and local features of the MSRP

Common Features	Local Features		
	Customers	Suppliers	Advertisers
<ul style="list-style-type: none"> • Web-based • Chatting functionality • Security features • Data saving functionality • Electronic Data Interchange (EDI) • User Profile • SMS verification system 	<ul style="list-style-type: none"> • Product ordering functionality • Search function • Fraud-reporting functionality • Fraud-awareness functionality 	<ul style="list-style-type: none"> • Online payment features • Ads management functionality • Membership functionality • ID Verification system 	<ul style="list-style-type: none"> • Banner ad space • Membership functionality

Table 6.1 is a summary of the common and local features of the MSRP. The key principles of the BOT used in this analysis are (1) boundary objects have common and local features to meet the needs and constraints of divergent actors; (2) different actors have unique viewpoints about boundary objects; (3) boundary objects are dynamic; (4) no boundary object can be universally useful; and (5) ability to adapt to local needs and constraints of distinct actors. The MSRP is identified as the boundary object, the actor as customers, suppliers, and advertisers in Ghana. The

next sections detail the rationale, consequences of a localized foreign-owned MSRP and the required approaches.

6.3 Common Features and Use

The common features of the MSRP are that: (1) it is a web-based platform, (2) it has security features, (3) it supports electronic data interchange, (4) it has chat functionality, and (5) it supports data-saving functionality. As a web-based platform, the MSRP simplifies retail processes through the Internet and web browsers and mobile applications that connect different user groups who need each other to exchange value. This feature ensured that the platform was accessible online through smart devices that are connected to the Internet. Second, the security functionality ensures that the integrity of listings is by no means comprised. For instance, the platform allows electronic SMS verification for all users. The platform is also tailored to improve the experience and interactions of the users while trading through the chatting functionality.

The MSRP eliminates the inconveniences, reach and search challenges hitherto associated with the old foreign-owned functionalities. This has been possible because of the capability of the EDI service that helps to digitally improve the retail business process. The EDI has made it easy to exchange information electronically rather than the limited traditional marketplaces. The EDI has provided a more expedient way for suppliers and suppliers to communicate their products and services to customers with ease. Another common feature of the MSRP is the data-saving functionality. This functionality enables the platform to adapt to the slow Internet connections in Ghana. If enabled, it can also save user data bundles consumed by the platform. This drastically reduced the cost of accessing the platform. The introduction of this feature was inspired by the

high cost of telecommunication data in developing countries in which Ghana is not an exception. By simply enabling the data-savings functionality in the app, everyone can access the platform faster, easier and cheaper than the foreign platform the case organization initially implemented. In the quest to build trust in the platform, the organization incorporated fraud-awareness functionality. The primary function of this feature was to raise awareness of possible fraudulent activities and how to avoid being a victim.

6.4 Local Features and Use

Local features are defined as the dedicated functionalities of the MSRP that serve the unique interests of the separate user groups. As identified earlier, customers, suppliers, and advertisers have distinct inspirations, perceptions, and interests in using the platform. The product ordering feature, membership functionality, ad reporting feature, search functionality, e-payment features, and account management functionality are local features of the MSRP. The product-ordering feature, for instance, is designed specifically for customers who want purchased items to be delivered to their doorsteps. Through this functionality, when a customer places an order, DHL picks up the product from suppliers on behalf of DRetail and delivers the item to the customer.

The product ordering functionality is a great service for busy customers who want to save time driving or meeting suppliers. The functionality made the platform the fastest, cheapest and most convenient way for customers and suppliers to exchange value. It also eliminated customers and suppliers from meeting disputes and made the platform safer. With this feature, DHL represents DRetail, picks up ordered items from the suppliers' end, and delivers them to the customer. After

the customer inspects the item and shows satisfaction, they can proceed to pay DHL and receive their items. Depending on the contentment of the customer, DRetail settles the supplier or returns the unsold item to the supplier. Even though this process is pivotal for providing safe transactions, it is evident that it has slowed down or delayed the transaction process.

Another local feature built for suppliers and advertisers to broaden their businesses, reach, and win customer trust is the Membership feature. The feature has exceptional tools that enable suppliers and advertisers to build online credibility, enjoy a bigger presence, and increase sales. These benefits are realized depending on the “membership tools” subscribed. The functions of the membership function are that it allows suppliers and advertisers: (1) to create a microsite dedicated entirely to their businesses, (2) access free-customized shop stickers, (3) access free professional product photos, (4) access banner-advertising space, and (5) enjoy heavy discounts on banner advertising and offer delivery services to their customers. To have access to the membership feature, DRetail manually creates and verifies the credentials of the interested subscribers. This is done to ensure that the platform maintains security, effectiveness and credibility for its users. Secondly, DRetail charges monthly fees to continue to grant users access. The ad-reporting feature is used by customers to report to DRetail about fraudulent postings, spam, duplicates, and offensive ads. It organizes the possible risks concerning the use of the platform so that suspicious activities and users can be reported and punished.

DRetail takes the reports received through this function seriously and follows up to deal with offenders. Mostly customers to quickly search for matched items use the sorting feature. More

specifically, the feature is useful for performing functions such as sorting of items according to geographical areas and prices, allowing for easy browsing and locating of goods and services at the consumers' preferred price and location. The online payment feature is also used by suppliers and advertisers to make payments to DRetail for ad campaigns. It is also used by suppliers and advertisers who subscribe to the membership features to settle monthly bills. The ad account management functionality is used by suppliers and advertisers to add, edit, and delete ads.

6.5 Local User Needs and Constraints

The findings presented some needs and constraints that the case organization did not account for before it deployed its MSRP in Ghana. It emerged, for instance, that during the usage of the foreign-owned MSRP in Ghana, the users needed a platform that is secure, safe, and trusted and robust enough to fight the level of online fraud in the country. However, the findings revealed that the foreign-owned MSRP could not facilitate safe transactions devoid of offline sales disputes. Trust was also identified as one of the most important factors that influenced the users' use of the MSRP but unfortunately, users with higher levels of trust were found to be more prone to fraudsters. It appeared almost impossible for the foreign-owned MSRP to gain widespread usage because it lacked the necessary functionalities to meet these needs. The need for an MSRP that uses less mobile data works well on all networks, including 2G, installs faster and loads more quickly were not met.

It is also important to note that the local environment within which the foreign-owned MSRP was deployed also constrained the use and performance of the platform. Given the success of Internet

services in the developed world, the case organization thought that they could directly transfer the MSRP locally and get it to work in the same way as in the developed world. As a result, they failed to consider possible high cost and slow connection constraints in the local context. The inability of the platform to adapt to these conditions constrained user access. The absence of logistics and e-payment services equally constrained the DRetail to initially generate sustainable revenue for the business in Ghana. Therefore, the failure of the foreign firm to understand and account for these local user needs and constraints forced them to adapt the MSRP.

6.6 Adaptation of Foreign-owned MSRP for Local Users

The BOT framework states that boundary objects are malleable enough to adapt to the local needs and constraints of users employing them. This analysis acknowledges that MSRPs are malleable and can adapt to the local needs and constraints of the users. The aftermath user experience of the MSRP propelled the case organization to adapt the platform to the actual needs and constraints of the users in Ghana. The findings reveal that automatic ad review, listing form, product/service search function, banner ad functionality, and ad manager were the original functionalities that accompanied the foreign-owned MSRP. Table 2 shows the functionalities, their target user groups and the intended solutions.

Experience with the original platform revealed some problems. The automatic ad review functionality, for instance, could not check and prevent the posting of fake products. Therefore, this functionality could not meet users' need for safe, trusted, and secure MSRP. The second issue concerns the inability of the e-catalogue search functionality to enable customers to search and

retrieve products available within their regions, cities and suburbs. These problems associated with the transported MSRP failed the organization to meet the needs of the various user groups due to socio-technical differences. Moreover, the foreign-owned MSRP had no features to meet the poor Internet speed and cost in the country. The platform had no functions to support the traditional cash payment system and mistrust in Ghana.

Table 6. 2: Functionalities of the Foreign-Owned MSRP

Functionalities	Target Users	Solutions
Automatic Advert Review		Digitally review submitted ads automatically
Automatic User Review	<ul style="list-style-type: none"> • Customers • Suppliers • Advertisers 	Enable platform provider to digitally check the authenticity of users automatically
Listing Form	<ul style="list-style-type: none"> • Suppliers • Advertisers 	Enable suppliers and advertisers to post product/service descriptions and upload supporting documents
Search functionality	<ul style="list-style-type: none"> • Customers 	Enable customers to search for desired items
Ad manager	<ul style="list-style-type: none"> • Suppliers • Advertisers 	Enable suppliers and advertisers to manage (update, and delete) their ads
Banner ad function	<ul style="list-style-type: none"> • Advertisers 	Enable advertisers to display banner ads
Foreign payment gateway	<ul style="list-style-type: none"> • Suppliers • Customers • Advertisers 	Enable users to make service payments

In areas where the transported functionalities failed to meet the needs and constraints of the local users, the organization initiated a localization process to incorporate new features. They also realized the need to adapt the platform to the socio-technical environment of Ghana, which is characterized by poor Internet speed, high cost of Internet data, high level of online fraud, a cash-

dominant system, and local e-payment services. Following the localization, new functionalities emerged to respond to the problems associated with the original platform. Table 3 shows the new functionalities developed and incorporated into the platform, their target user groups and the intended solutions.

Table 6.3: Functionalities of the Localized Foreign-Owned MSRP

Functionalities	Target Users	Solutions
Membership	<ul style="list-style-type: none"> • Suppliers • Advertisers 	Enables suppliers and advertisers to increase their sales Prevents fake postings of goods and services
Product ordering Functionality	<ul style="list-style-type: none"> • Suppliers, • Customers 	Enables customer convenience
Location-based functionality	<ul style="list-style-type: none"> • Customers 	Enables customers to search for products and services within some specific areas such as cities, regions, and suburbs
SMS Verification feature	<ul style="list-style-type: none"> • Customers • Suppliers • Advertisers 	Enabled automatic mobile number verification of users Prevents posting of duplicate ads
Fraud-awareness	<ul style="list-style-type: none"> • Customers 	Provides information about tricks used by fake posters to swindle customers and vice-versa
Ad reporting functionality	<ul style="list-style-type: none"> • Customers 	Enables customers to report fake ads
Chat functionality	<ul style="list-style-type: none"> • Suppliers • Advertisers • Customers 	Allows users to exchange transactional information
Local online payment gateways	<ul style="list-style-type: none"> • Suppliers • Advertisers 	Allows suppliers and advertisers to make service payments online
Data-saving functionality	<ul style="list-style-type: none"> • Suppliers • Advertisers • Customers 	Remove unnecessary images Use lower resolution for remaining images Provides a “lite” experiences Compress data Respect metered and unmetered network status

The case organization had the opportunity to adapt the transported functionalities to the actual needs and conditions of the local users. The fraud-awareness functionality for customers offered the opportunity to easily identify and report fake posts using the ad reporting functionality. Secondly, apart from meeting the high cost of Internet in Ghana, the data-saving functionality offered users with poor Internet speed connections the opportunity to access and use the platform without any interruptions. The adapted search functionality now meets the local customers' need to search for products and services available in their cities, towns, and regions. Other new functionalities added to the MSRP include the chat functionality, e-payment functionality, membership, and delivery functionality.

6.7 Chapter Summary

This chapter analysed the case findings of the study and guided the researcher to identify themes and concepts relevant to the research discussions in the next chapter. This analysis was done based on the concepts of the BOT that was adopted as the analytical lens for the study. The next chapter presents a detailed discussion of the identified themes and concepts from this chapter to answer the research questions underpinning this study.

CHAPTER SEVEN

DISCUSSION OF FINDINGS

7.1 Introduction

The purpose of this study has been to understand why and how foreign firms would localize their MSRP in a developing country and the consequences encountered. This section presents the findings from the case study of DRetail. In line with the research questions, the findings of this study are discussed. Based on this, the discussion is centred on the rationale for localizing the foreign-owned MSRP in the above case, how it was localized, and the consequences of the localization.

7.2 The Rationale for Localizing a Foreign-Owned MSRP for a Developing Country

As noted by Koskinen et al. (2019), transaction platforms modelled for a specific country may not be readily usable in a different context. The localization of foreign-owned MSRPs has become a focal point of discussion in research and for foreign firms in developing countries. The findings show that foreign firms in developing countries opt to localize their MSRPs because they needed to: (1) adapt to the changing status of local payment methods in developing countries; (2) adapt to the slow Internet speed and high cost of data bundles in developing countries; and (3) respond to the level of fraud in developing countries. The findings also show that the above reasons for the localization of the platform were motivated by the need to satisfy the local needs and constraints of the customers, advertisers, and suppliers the firm met in Ghana. The sub-sections below explains

the reasons that led to the localization of the foreign-owned MSRP in detail in relation to the digital platform literature.

7.2.1 To Adapt to the Changing Status of Local Payment Methods in Developing Countries

The findings show that the case organization localized its MSRP because it needed to adapt to the changing status of local payment methods in a developing country. These payment methods are, for instance, dominant cash system and local e-payment services. The findings revealed that the foreign-owned MSRP had no functionalities to meet the non-availability of e-payment services and dominant cash culture in the country at the time the firm commenced operations in Ghana. Hence, the firm was initially compelled to localize its MSRP because of the need to adapt to the dominant cash culture in the country. Foreign-owned MSRPs have functionalities that allow users to make payments using credit and debit cards. However, because of the non-readiness of local banks to process credit card transactions and the nonexistence of e-payment innovations at the time, it was imperative to disable the in-built credit card payment gateways and replace them with functionalities that can support the dominant cash culture in Ghana.

Moreover, it is no doubt that in recent times, e-payment services are in effect becoming large monopolies dictating economic rules of both online and offline transactions (Zutshi & Grilo, 2019b). The findings show that the initial reason for the localization was to provide an MSRP that can meet the cash payment culture. Later in 2017 when e-payment innovations became common in Ghana, online payment gateways were also incorporated into the MSRP to adapt to this change. Thus, later in 2017, the case organization welcomed the concerns of suppliers and advertisers to incorporate local e-payment gateways such as the MTN MOMO, AirtelTigo Money, Vodafone

Cash, and VISA Cards to improve payment convenience. The findings reveal that the platform currently supports both cash and local e-payment services as payment methods. The reason for the incorporation of these local e-payment gateways was to adapt the MSRP to the changing status of local payment methods in the country.

So far, existing digital platform studies on localization are silent on the fact that foreign firms localize their MSRPs in developing countries because of the need to adapt to the dynamic nature of payment methods in these areas. As such, the findings uncovered in this study fill the missing gap.

7.2.2 To Adapt to the Slow Internet Speed and High Cost of Data Bundles in a Developing Country

Despite the growing Internet penetration rate and access to digital devices in developing countries, slow Internet connection speed and the high cost of Internet bundles continue to constrain the use of digital platforms in these areas (Farid, 2018). As such, users in developing countries need MSRPs that can reduce data usage. The data saver feature in the localized MSRP provides this functionality to the users. The research findings show that localization activities help to improve the performance of foreign-owned MSRPs to ensure that they respond to the high cost of data bundles and slow Internet speeds in developing countries. As the findings show, foreign-owned MSRP has no functionalities that can save data bundle consumption and make the platform responsive to slow Internet connection users. From the case analysis, the incorporated data-saving functionality, for instance, improved the response time for users accessing the platform with slow

Internet connections. The functionality also offers users the ability to switch the platform to a data-saving mode. These critical requirements were missing in the original deployed MSRP. The firm, therefore, localized the MSRP because it needed to incorporate a local functionality that can improve the performance of the platform amidst the high cost of data bundles and slow Internet speeds in the country.

The findings of this study support the claims of some researchers (Effah, 2014; Singh et al., 2012) advocating for the localization of foreign-owned MSRPs in developing countries that the exercise can help foreign entrepreneurs respond to the high cost of data bundles and slow Internet speed. However, no empirical findings are available to support these claims. Therefore, the findings of this research contribute to that body of knowledge in the literature.

7.2.3 To Respond to the Level of Fraud in Developing Countries

The findings show that the high risk of cyber fraud in a developing country compelled the case organization to localize its MSRPs. Localized foreign-owned MSRPs have tailored functionalities that can check, report, identify, reduce, and prevent fraudulent transactions. From the findings, these functionalities are, for instance, (1) fraud-awareness feature, (2) fake ad reporting feature, (3) dual verification feature, (4) Product ordering feature, and (5) verified membership feature. On the contrary, foreign-owned MSRP security features are limited to an automatic email verification process, which is not robust enough to mitigate the occurrence of fraudulent activities in the platform. The pre-localization era witnessed fraudulent activities such as fake ad listing, fraudulent service charges, non-realistic prices, and offline disputes, which led to a decreasing number of

users of the MSRP at the time. Therefore, the firm localized the platform because the users needed an MSRP that can check report, identify, and reduce the above-mentioned fraudulent activities.

7.3 Localization Process of a Foreign-Owned MSRP

The analysis of the research findings highlights several activities in the localization process that are worth discussing. These activities include the identification of local user needs and constraints influencing the use of the foreign-owned MSRP, (2) formation of a cross-cultural localization team, (3) translation and adaptations, and (4) maintenance.

7.3.1 Identification of Local User Needs and Constraints Influencing the Use of the Foreign-Owned MSRP

The actual localization process did not start with a quick definition of what requirements should be met, but rather with a tedious long-term study and negotiation of what is understood and expected by whom. It took a while for the case organization to understand what needs were not met and what factors could constrain the use and performance of the MSRP in another country. It was found that because the firm failed to account for the local needs and constraints of the target suppliers, advertisers, and customers, they could not meet their expectations. The findings show that the challenges that influenced the use and performance of the foreign-owned MSRP encouraged the case organization to localize the platform. These challenges include key constraining factors such as the slow internet speed, high cost of bandwidth, non-readiness of local banks to process credit card transactions, the nonexistence of e-payment innovations at the time, and preference for cash payments. The research findings show that these constraints severely

affected the acceptance, use and performance of the MSRP deployed by the case organization in Ghana.

The findings reveal that the deployed MSRP could not address some of the local needs of the target user groups. Some of the local user needs were that the users needed a trusted and safe platform for their retail activities. Secondly, they needed an MSRP that could adapt to their dominant cash culture. The user constraints of the users were their inability to access the platform because of the slow Internet connection speed and high cost of data bundles in the country. However, the failure of the MSRP to meet the above expectations gradually hampered the case organization intention to attract customers, suppliers, and the advertiser and generate enough revenue to sustain the business. Analysis of the case findings reveals that the localization process of the MSRP commenced by investigating the above issues that influenced the success of the platform in the country. Since platform businesses thrive on what is experienced by users, the case organization, therefore, gathered information on how the various user groups perceive the platform. Based on the feedback, the case organization initiated plans for the localization of the MSRP.

7.3.2 Formation of a Cross-Cultural Localization Team

The localization of digital platforms may require mastery of skills, which can be obtained through personnel training, outsourcing, and the formation of cross-cultural localization teams (Singh, Zhao, & Xiaorui, 2005). In this study, when the MSRP was initially deployed in Ghana, the failure of the foreign firm to understand the true needs and constraints proved to be a major starting obstacle, as they did not involve the local users. Therefore, there was a need to form a cross-

cultural localization team. The localization team was composed of some users (customers, advertisers and suppliers), local technical experts and the case organization. This team was responsible for the entire localization process. The decision to include local users and technical experts in the localization team was important because the case organization needed in-depth knowledge about the cultural preferences of the target audience. Understanding the common and local goals of the user groups and the constraints they face proved to be a key contributing factor in localizing a foreign-owned MSRP. Listening to local users and asking questions proved to be good qualities and prerequisites for the localization process. These findings are consistent with those found in the digital platform literature, where some authors (De Reuver et al., 2018; Saarikko, 2015) pointed out that a complete “immersion” in the culture and environment of the target user is necessary to produce a fully localized IS.

7.3.3 Translation and Adaptation of the Foreign-Owned MSRP

The literature reviewed in this study suggests that platform localization typically involves translating content into local languages. From the findings, the MSRP contained foreign digital assets such as date and time zone formats, address formats, terminologies, icons, and currency symbols that were translated by the localization team. For instance, the foreign currency symbol was replaced with the local currency symbol (Cedi sign), which is understood and accepted by the local users. The ad listing form was also modified to encourage advertisers and suppliers to include local terminologies in their product and service descriptions. This ensures that relevant content such as product and service descriptions are generated almost entirely by the local users. The team also translated the domain name of the platform into the local Twi dialect. The findings of this

study are consistent with those of Cristian (2014), who pointed out that platform localization including translation is the current standard.

However, as the findings indicate, a simple translation of the domain name into the target language and the translation of the other digital assets listed above did not guarantee successful localization of the platform. This finding also supports the findings of Mohan and Punathambekar (2019), which stipulates that platform localization goes beyond translation of content. The study found that these translations were made in the early stages of the localization process. This finding contradicts the findings of Frisk (2008) which states that translation is taken into account only in the very last steps of the localization process.

From the case analysis, the localization team further adapted the MSRP to meet the unmet needs and address the constraints of the local users. The adaptation was made in addition to the translations to incorporate local functionalities that can meet the needs and address the constraints of the local users. The first functionality developed and incorporated is the fraud-reporting feature and ID verification system because there was an urgent need to prevent fraudulent activities on the platform. Other changes were the disabling of the foreign e-payment gateways, and credit card services. However, the localization team ensured that local e-payment gateways were later incorporated into the MSRP when MOMO, a local mobile payment service, became common in Ghana in 2017. The findings show that MSRP localization is an ongoing process that does not end with the once-only creation of procedures.

The case organization developed and integrated new functionalities every time the needs and constraints of the users changed. This finding is in line with the concept of the BOT framework, which states that boundary objects are dynamic enough to adapt to changes around them (Fong et al., 2007). In total, the team developed and incorporated nine local functionalities to respond to the needs and constraints of the local user groups. These functionalities were developed from scratch and integrated into the existing MSRP. The deployed functionalities aimed at addressing the level of fraud on the platform, responding to the slow and high-cost internet bandwidth, and adapting to the changing status of e-payment methods in Ghana.

Functionalities deployed to address the level of fraud occurring on the platform include the fraud-awareness, fraud-reporting, membership, product ordering, and ID verification functionalities. The other adaptations made to address the high cost of internet challenges faced by users was the integration of the data-saving functionality, which triggers the “lite” experience that makes the MSRP fast and more responsive to users on slow internet speeds. Owing to the adaptive nature of the MSRP, the developers adopted an incremental development approach. The incremental development approach enabled different completion times for all the nine functionalities.

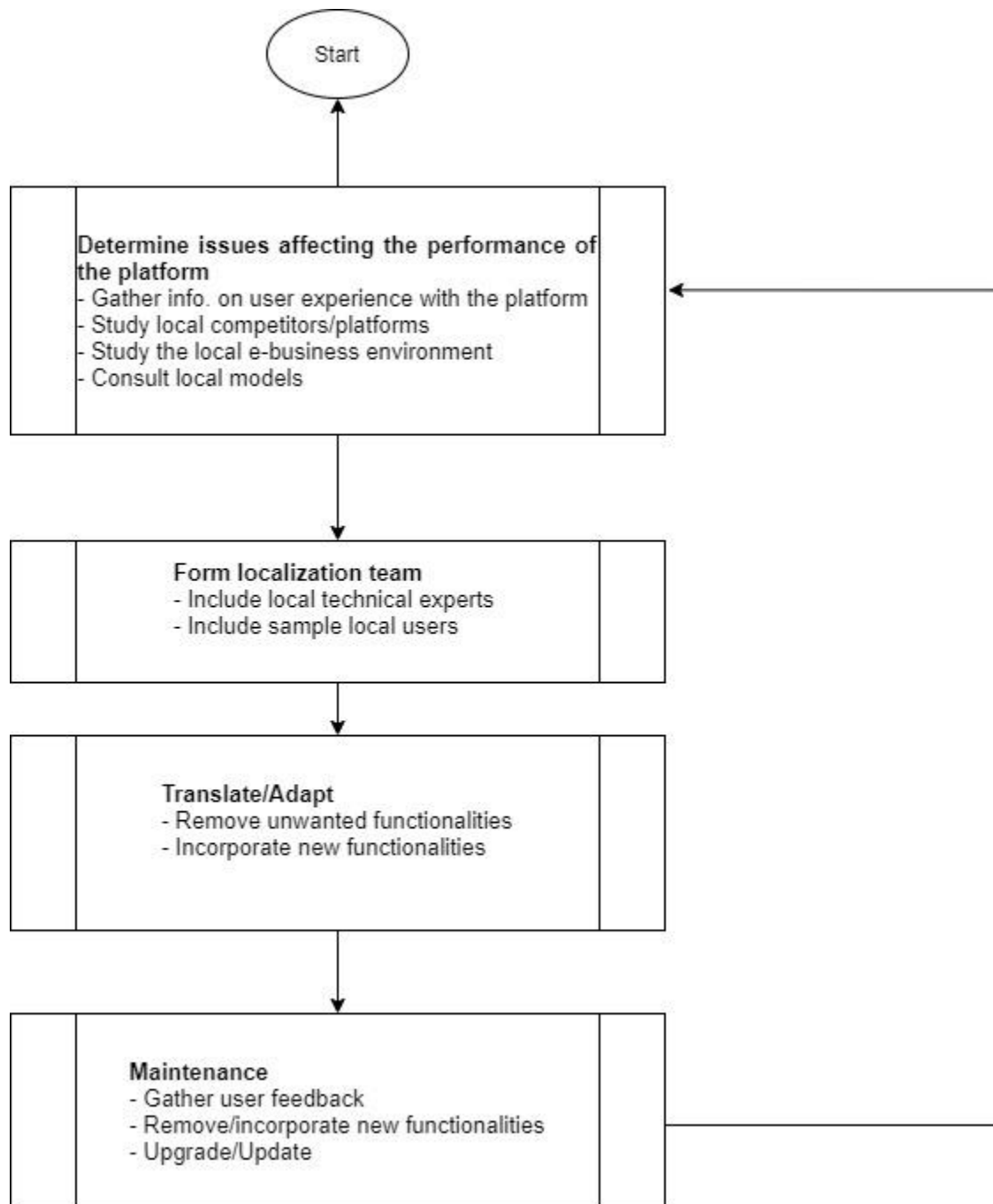
7.3.4 Maintenance

The research findings show that there must be a continuous/periodical maintenance of the localized MSRPs to adapt to the rapid changes in terms of technology surrounded by the local environment. During such periods, the organization continues to integrate new or disable some existing functionalities to ensure that the MSRP continues to adapt to the local user needs and constraints.

Therefore, the localization process never ends. Al-Badi and Mayhew (2010) and Cristian (2014) note that localizing platforms for the first time is easier than keeping them continually adaptive. The technical team performs updates and maintenance on the platform when the need arises.

The findings revealed that the maintenance cost was expensive because integrating local users into all the design phases is costly. The findings also show that although the initial costs for localizing MSRPs are far more cost-effective, the process of providing user support, keeping it maintained and upgraded can be more expensive. For instance, to continually maintain the credibility of the localized MSRP, DRetail incorporated manual processes to verify, approve and publish ads. This process of manually reviewing, approving, and publishing ads is slow and time-consuming and requires more staff on board. It was obvious that management had to spend more revenue on hiring additional workers. Figure 7.1 shows a pictorial view of the process flow diagram.

Figure 7. 1: Process Flow of MSRP Localization



Source: Author's Construct (2020)

7.4 Consequences of Localizing a Foreign-owned MSRP in a Developing Country

There were some consequences of using the localized foreign-owned MSRP in Ghana. These consequences were either intended or unintended. The intended consequences were the ones the case organization expected and as such, prepared for it. On the other hand, the unintended consequences were not anticipated; hence, the organization could not prepare for its occurrence. This section discusses the intended and unintended consequences encountered during the use of the localized foreign-owned MSRP. The findings related to these consequences are further discussed below.

7.4.1 Intended Consequences

The findings indicate that there were some consequences the firm anticipated they would encounter as a result of localizing the MSRP. These consequences are termed in this study as intended consequences because they were planned for based on the needs and constraints of the local users. For instance, the organization had expectations that after the localization, public trust for its MSRP would be improved or increased. The findings show that if an MSRP does not address these local users' needs and constraints, they may doubt its credibility and its usage rate will eventually decline. As highlighted earlier, through the incorporation of tailored local functionalities such as the product ordering functionality, ID verification system, SMS verification system, and fraud-awareness and fake ads reporting functionalities, the organization was able to build trust and credibility in the platform. So far, the digital platform literature has been silent on the fact that localization can improve public trust, credibility, and customer loyalty for foreign-owned MSRPs in a developing country. As such, these findings fill that missing gap that is needed to motivate potential foreign-owned MSRP entrepreneurs in developing countries.

The case analysis revealed that at the time DRetail commenced operations in Ghana, there was limited access to e-payment and logistics services, which hampered their revenue generation opportunities. They, therefore, anticipated that if they keep adapting to the local needs and constraints of the users, they would eventually create new revenue generation models to sustain their operations in Ghana. As such, through localization, the organization was able to incorporate local payment gateways and functionalities like the membership functionality, which enabled advertisers, and suppliers to pay service charges. While the membership functionality attracted three thousand (3000) advertisers and suppliers who pay monthly service charges, the local e-payment afforded the collection of these payments. The findings, therefore, show that localization of foreign-owned MSRPs can enable revenue generation models for foreign organizations operating in a developing country.

There were expectations that by localizing the MSRP, suppliers and advertisers would be able to increase sales and profits since customer trust would improve. The findings reveal that these expectations were met when the organization incorporated membership functionality. The findings show that the membership function of the localized MSRP offers extended features that allow local suppliers and advertisers to reach more customers on the platform, improve the credibility of their products and services, and increase sales and profit margins.

7.4.2 Unintended Consequences

Unintended consequences are unforeseen outcomes the organization did not expect; hence did not prepare for. For instance, contrary to findings that MSRPs reduce delays by reducing transaction time (Hänninen et al., 2019), the findings from this study indicate that localization of foreign-owned MSRPs in developing countries increases the transactional time for customers and suppliers. From the case findings, it is realized that localized MSRPs require local functionalities such as an ID verification system, third-party delivery service providers, and manual verification processes to respond to the level of online fraud in developing countries. This study argues that although these functionalities and manual processes succeed in providing safe and fit for purpose retail platforms in developing countries, reports from local customers, suppliers and advertisers reveal that it delays the processes of listing items on the platform as well as fulfilling customer orders. Within the limited developing country digital platform literature, no explicit studies have revealed that the use of localized foreign-owned MSRP causes transactional delays.

Furthermore, foreign-owned MSRPs are known to mediate retail transactions between advertisers, suppliers and customers (Kazan, 2018). As such, transaction risks are shifted from the platform owners to users (Salehi-Sangari & Engström, 2007). In contrast, the findings from this study reveal that localized foreign-owned MSRPs share transaction risks among platform owners, suppliers, third-party delivery organizations, and customers rather than among suppliers and customers. This is because, with localized foreign-owned MSRP, third-party delivery organizations, platform owners, suppliers, and customers are the key stakeholders in the fulfilment process. The study also shows that localization of foreign-owned MSRPs in developing countries can extend the transactional logic of retail platforms from simple facilitation of retail transactions to taking control

over the entire delivery process. As observed from the case analysis, the localized MSRP was incorporated with manual steps to verify and approve advertisers and suppliers' posts. This process of manually verifying, approving and publishing contents must be constantly managed and will require increment of the staff.

7.5 Reflections on the Use of the BOT

This section presents a discussion on the use of the BOT as an analytical lens for this study. Because of its interpretive flexibility (Star, 2010), BOT enabled the researcher to analyse and understand why and how a foreign firm would localize its MSRP in a developing country and the encountered consequences. The BOT enabled the researcher to understand why a foreign firm would localize its MSRP in a developing economy. Employing the BOT enabled the researcher to identify the local needs, constraints, and environmental factors that influence the performance and use of foreign-owned MSRPs in a developing country that calls for their localization. The theory also helped the researcher to analyse and understand the localization process of foreign-owned MSRPs in a developing country by showing that localization can be achieved by modifying the platform with local functionalities to adapt to the user needs and constraints.

Moreover, the researcher was able to investigate the consequences that accompany the localization of a foreign-owned MSRP using the BOT as an analytical lens. Further, the BOT helped the researcher with the data collection, analysis of the findings and the discussion phases of the research. The concepts and principles of the BOT enabled the researcher to gather the required information (data) required to answer the research questions that underpin this study. During the

analysis phase of the study, the BOT helped the researcher identify the relevant themes needed to achieve the purpose of this research.

In addition, BOT was useful for identifying and explaining the changes that can occur in the status of MSRPs when they cross boundaries from one context to another. It was revealed that some functionalities of MSRPs are disabled due to the change in context. As informed by BOT, translation and incorporation attempts help adapt technologies to user needs. Requirement specifications are at the centre of the platform localization activities as it is found useful to stipulate the functionality required of the MSRP in another context. The nature of requirement specifications has been often incomplete owing to the uncertainty related to changes in the context within which the MSRP is embedded, users' needs, and constraints. Therefore, the BOT further explained what the users could use technology and how societal changes influenced their needs. It also helped to identify how local design specifications emerge from different groups in cross-cultural MSRP localization projects, including the study of the complex, sociotechnical, and multicultural context surrounding the technology.

7.6 Chapter Summary

This chapter discussed the analysis of the findings of this research and the reviewed literature to address the research questions posed at the beginning of this study. The chapter began by discussing the rationale behind why the case organization, which is a foreign organization, would localize its MSRP for a developing country. Preceding this was a discussion on the activities involved in the localization of a foreign-owned MSRP for developing countries. The chapter also discussed the consequences of using a localized foreign-owned MSRP. Finally, the chapter provided insights into the reflection on the use of the BOT as the theoretical lens for this study. The next chapter chronicles the summary of this study and further discusses the contribution of this study to knowledge and its implications for research, practice and policy. Subsequently, the next chapter discusses the limitations of the study, recommendations for future research, and the conclusion of the study.

CHAPTER EIGHT

CONCLUSION, RECOMMENDATIONS AND FUTURE RESEARCH

DIRECTIONS

8.1 Introduction

The previous chapter discussed the empirical findings of this study by addressing the research questions presented in chapter one about the evidence available in the literature. The researcher discussed the application of the BOT as an analytical lens for this study. This chapter presents a summary and conclusion of the study. The chapter commences by reviewing the research questions that this study sought to address and how the study sought to address them. Further, the chapter presents an evaluation of how the study was conducted and the contributions made to the literature, knowledge and theory. The implications for research, policy and practice are also presented in the chapter. The chapter also discusses the limitations and recommendations for future studies and finally, the overall conclusion of the study.

8.2 Review of Research Questions

The purpose of this study has been to understand why and how a foreign firm would localize its MSRP in a developing country and the consequences it encountered. The global nature of the Web and the differences among cultures across the globe dictate how technologies should be presented and adopted. There is no way to design perfect technology for all users worldwide. Therefore, localization is becoming increasingly important. Given this, foreign entrepreneurs in developing

countries are increasingly localizing their MSRPs. For an MSRP to be successful outside its original context, the localizers must be aware of the factors that will ensure that it is acceptable to the other cultures and adapt to these factors. However, there has been little empirical research on this phenomenon. The dominant digital platform studies have focused on adoption, impacts, implementation, and development (Blaschke et al., 2018; Eferin et al., 2019; Hänninen et al., 2019; Hein et al., 2019; Rossotto et al., 2018; Sun, 2019; Van-Belle & Mudavanhu, 2018; Wang, Wang, & Hao, 2011). Little research, with only two exceptions (Mohan & Punathambekar, 2019), has been conducted to study the localization of digital platforms. However, none have focused on the localization of MSRPs, as they sought to investigate the localization of digital platforms such as YouTube and digital gaming platforms. More so, there have been studies on MSRPs in developed countries than in developing countries. Since culture, user perception, and environmental factors differ across these worlds, there is a need for more contemporary research on the localization of MSRPs in developing countries. To achieve the research purpose and provide solutions to the research problems, the study drew on interpretive case study methodology and the BOT as a theoretical lens.

In response to the gaps identified in the existing literature shown in chapter one, this study addressed the following research questions:

1. Why would a foreign firm localize its MSRP in a developing country?
2. How can a foreign firm localize its MSRP in a developing country?
3. What are the consequences of using a localized foreign-owned MSRP in a developing country?

The research questions were addressed by the study as follows:

- i. Following the background of this research were a review of relevant literature on digital platforms, MSRPs, foreign-owned MSRPs in developing countries, platform localization, and MSRP localization in chapter two. This review was conducted to identify related research gaps in the digital platform literature. The literature review showed that existing digital platform studies have been silent on the localization of foreign-owned MSRPs in developing countries. The chapter also revealed that within the extant number of studies conducted on MSRP in developing countries, much attention has been paid to adoption, formation, failure, and enabling factors without paying attention to the localization of foreign-owned MSRPs. The literature review also revealed that theories employed in previous platform localization studies have not helped to understand the subjective goals and perceptions of the divergent user groups employing MSRPs. The selection of the BOT, therefore, helped to understand the different needs and constraints of the local users the firm was required to address.

- ii. Chapter three presented the theoretical foundation of this study. The chapter discussed the underlying concepts and key principles of the BOT as a theoretical lens for the study. The researcher drew on BOT as a theoretical foundation for this study for two reasons. First, the BOT was chosen to explain the phenomenon because of its subjective flexibility to study technologies that are adaptable to different user needs and constraints. BOT is a useful concept for understanding the coordinating role of technology in practice. Localization involves foreign firms collaborating with local multiple actor groups with different objectives to translate and adapt a foreign-owned

- technology. The theory was, therefore, considered appropriate for this research as it offers rich concepts and principles for understanding MSRPs as boundary objects.
- iii. Chapter four discussed the research methodology employed in this study. The chapter discussed the three dominant research paradigms in IS (i.e., Interpretivism, positivism, and critical realism) based on their respective epistemological, ontological and methodological viewpoints. The chapter also gave the rationale for the choice of an interpretive method for the analysis. The chapter further explained how the field study was performed, and how data was collected and analysed.
 - iv. Chapter five of the study reported the empirical findings of the research. The chapter presented an overview of the case organization (DRetail) within the context of Ghana. The reason behind the foreign firm's decision to localize their MSRP in Ghana was also reported. The chapter also narrated the MSRP localization process in Ghana as well as its consequences.
 - v. Chapter six analysed the findings of the study using the BOT as a lens to unearth the dominant themes and concepts and their effects in response to the research questions since they were structured around the theories. The analysis of findings showed the local user needs and constraints that the case had to adapt to in order to localize the MSRP in Ghana. The data analysis was interpretive and inductive (Effah & Nartey, 2016), and was guided by the BOT theoretical framework. The purpose of the analysis

was to achieve the following: (1) identify the reasons why the case organization decided to localize its MSRP in Ghana. (2) understand how the localization process was carried out. (3) the consequences encountered in using the localized foreign-owned MSRP. The analysis revealed some local needs and constraints of the user groups and functionalities of the foreign-owned and localized MSRP.

- vi. Chapter seven discussed the findings of the study. The chapter specifically addressed the research questions in light of the literature review and theoretical foundation in Chapter two and three respectively, and the empirical findings in Chapter five as well as with the subsequent analysis in Chapter six. In all, the chapter argued that the localization of a foreign-owned MSRP in a developing country was influenced by the need to modify the platform to adapt to the local user needs and constraints in Ghana. It further argued that localization can improve public trust for a foreign-owned MSRP in a developing country.

8.3 Contribution to Knowledge

There are four main ways by which interpretive research contributes to knowledge in information systems research (Darby et al., 2019). Interpretive research contributes to knowledge by offering rich insights, developing concepts, creating theories, and drawing specific implications (Kivunja & Kuyini, 2017). Although the study did not develop a new theory, it contributed to knowledge in the area of digital platforms, through the application of the BOT in the study of localization of a foreign-owned MSRP in a developing country. Nonetheless, although this research did not develop

a new theory, it offered rich insights and drew specific implications. These implications are vital in the aspects of research, policy and practice.

8.3.1 Contribution to Theory

Previous studies that used the BOT extensively used it to analyse information systems development, use, and implementation (Park & Boland, 2012; Tim, Yang, Pan, Kaewkitipong, & Ractham, 2013). The literature reviewed for this study showed that empirical studies of the BOT are lacking in the area of digital platforms. This study joins a few studies that have used BOT in a developing country. In view of this, the findings contribute to the digital platform and BOT related literature. This study will advance our knowledge of the digital platform discipline in relation to their adaptive nature within various contexts, which is a grounding principle of the BOT. As such, although, this study did not develop a new theory, it contributes knowledge in the area of digital platforms by applying an existing theory. It helped to generalize the rationale behind the decision to localize a foreign-owned MSRP in a developing country. It also generalized the consequences that follow the localization of foreign-owned MSRPs in developing countries.

8.3.2 Offering of Rich Insights

Offering rich insight means providing in-depth insight into the social and organisational aspects of an IS, its development and application (Cecez-Kecmanovic, 2011) in a particular context. The study also extends the limited scope of the digital platform literature in developing countries from issues like platform formation, failure, adoption, design and use to the localization of foreign-owned MSRPs (Appiahene et al., 2014; Effah, 2014; Farid, 2018; Hossin et al., 2018; Pucihar &

Podlogar, 2005). Through the case findings outlined in chapter five, this study provided deep insights into the localization of foreign-owned MSRPs. First, the study offered rich insight into how a foreign organization localized its MSRP in a developing country. The case shows how the high rate of cyber fraud, high cost of Internet bundles, poor Internet speed, and the change in the status of digital infrastructure call for the localization of foreign-owned MSRPs in developing countries. Thus, it argues that factors such as environmental differences, local needs and constraints of users are the key factors that influence the localization of foreign-owned MSRPs in developing countries. The case also shows how the engagement of only in-house technical experts in the MSRP localization process raises contradictions between management, developers, and local users. It is argued that by accounting for local users' needs and constraints, management goals, and leveraging local partners to acquire in-depth knowledge of the context, conflicts that emerge in the MSRP localization process can be resolved. The study, therefore, provides richer insight into how conflicts are resolved in the localization process of MSRPs.

Second, the study offered rich insights by revealing that localization of foreign-owned MSRPs is far beyond content translation, which has been prioritised in the literature. The study also reveals that MSRP localization involves activities beyond translating or converting foreign currency symbols, time zone formats, colours, and icons to include adapting to user needs and constraints in a given context. Previous studies have failed to conduct an individual-level analysis of the separate user groups that interact with MSRPs to uncover their local needs and constraints and how to account for them (Guo, Liu, Guo, & Qian, 2007; Mohan & Punathambekar, 2019; Singh et al., 2012). This study conducted a disparate user-based analysis of all user groups involved in the use of the foreign-owned MSRPs in a developing country. Interpretive research appreciates

multiple realities and assumes that social reality is subjective and can best be shaped by human experiences and social contexts (Creswell, 2013; Goldkuhl, 2012). As such, by employing an interpretive case study approach, researchers are presented with better flexibility to explain phenomena that have multiple user groups, each of which has a different interest, commitment and perception toward a given object.

Based on the case experience in the localization process, this study provides rich insight into a foreign-owned MSRP localization process in the context of Ghana. As the findings from the study are empirically situated in Ghana, they have been shaped by the developing country context digital platform literature. To offer rich insight, the BOT was selected as a theoretical lens because of its appropriateness to offer insight into the complex and the socio-technical nature of the localization process of a foreign-owned MSRP. Based on the BOT concepts of a boundary object, actors and interaction, this study offers rich insights into the socio-cultural and technical aspects of MSRP localization. The BOT enabled the researcher to understand how the disparate users involved in the localization process can cooperate on a project, despite conflicting interests. Although digital platform localization is not new in the literature, this study is arguably the first to help investigate the localization of a foreign-owned MSRP in a developing country.

8.4 Implication for Research, Practice and Policy

While a plethora of research exists on digital platforms, this study represents one of the first academic attempts to provide insights into the localization of a foreign-owned MSRP in a developing country. The findings that emerged from this study offer some implications for

research, practice, and policy. The next subsections present a detailed discussion of these implications.

8.4.1 Implications for Research

The study has some implications for research. The study demonstrated that although the principles of the BOT posit that MSRPs are dynamic and can adapt to the local needs and constraints of their users as well as the changes that occur around them, it fails to elaborate on the change process. The study, therefore, calls on IS researchers to extend the BOT theory to elaborate in further detail the change process of boundary objects, especially in the localization process of digital platforms.

Second, the BOT can be combined with the Context, Content and Process (CCP) theory to investigate the impact of context and in-house IS capabilities on the localization of MSRPs. Such a combination can be useful for IS researchers who intend to study the evaluation of organizational context on digital platform functionalities and localization processes.

8.4.2 Implications for Practice

The findings of this study also offer some implications for practice. The findings provide insights into how foreign-owned MSRPs can be localized to target underserved markets such as those in developing countries and the local functionalities they need to develop and incorporate for such local users.

The findings indicate that foreign organizations do not necessarily have to focus primarily on the translation of web content from English to local languages to localize their MSRP in developing countries. Instead, the study suggests that for any kind of technology that has multiple interacting user groups, adapting to the local needs and constraints of the user groups should attract maximum attention in the localization process. The study, therefore, suggests that foreign entrepreneurs who intend to localize their MSRPs in developing countries should go beyond the basic translation of web content to inculcate locally relevant functionalities that would provide a truly localized experience.

Furthermore, developers, foreign entrepreneurs, and platform owners attempting to localize their MSRPs for other developing countries other than Ghana can benefit greatly from the findings. For instance, the empirical MSRP localization process flow from this study can act as a building block for a localisation process in other countries. Similarly, platform owners can benefit greatly from it by realising that they need to consider the influence of local needs and constraints of developing country users when localizing their MSRPs. The findings also provide practitioners with insights into the challenges associated with the localization of MSRPs in developing country environments and how they can overcome them.

8.4.3 Implications for Policy

For policy implications, the study advocates for government to institute new policies or amend existing policies to govern digital retail transaction issues, including dispute resolution, and provide mechanisms for their enforcement.

8.5 Limitations of the Study

The contributions of this study are limited by the research purpose, theoretical foundation and research methods employed. As such, there were some limitations to the study, that can offer directions for further research. One of these limitations is the use of a single case study in a developing country. Ideally, research of this nature should be conducted using multiple case studies and different developing countries. The choice of a single developing country as the context of the study did not offer the researcher an opportunity to provide a basis for generalizing the findings to wider developing countries.

Moreover, this study, when viewed through another analytical lens, may reveal different findings, thereby limiting the application of its findings to studies that used the BOT. To make a theoretical generalisation, this study is bounded by the theory applied in the analysis. While this is considered to explain the phenomenon better, several viable alternatives exist. For example, the analysis could have been conducted using a process theory that could likely generate alternative insights.

Finally, some parts of the empirical investigations are retrospective, which might affect interpretations of the phenomenon. While this is a serious limitation, the researcher has tried to address it by collecting data from multiple informants and corroborating interpretations through archival documents when possible.

8.6 Future Research Directions

It is impossible to outline all the possible ways worthy of further study. As such, the findings of this study offer several opportunities for further investigation. Therefore, the following has been found particularly interesting, relevant and significant recommendations for future research.

- i. Given that the scope of the study was relatively small, it would be of great interest to conduct further research in this field to demonstrate how MSRP localization differs in a larger sample, across a greater selection of developing countries. The findings of the study are limited by the conditions in Ghana, which may vary from one developing country to another. Thus, the findings of this research can only be generalized to developing countries that share similar conditions with Ghana. Therefore, future researchers may consider using multiple case studies from two or more developing countries to investigate the localization of foreign-owned MSRPs.
- ii. In addition, future studies may explore the localization of foreign-owned MSRPs from the perspective of outsourced or hired localizers. Since this study reveals that an in-house MSRP localization exercise results in a high cost of maintenance, it would be interesting to find its cost-effectiveness when the localization process is undertaken by a localization agency.
- iii. There is an increasing deployment of sharing economy platforms in developing countries. As such, this study can also be extended beyond the scope MSRPs by

researching how other foreign-owned multi-sided platforms such as Uber, Bolt, and Yango are localized in developing countries.

- iv. Other theories can be used in future research to uncover pertinent issues in the localization of foreign-owned MSRPs and to offer more generalizations to the findings of this study.
- v. Future research can also investigate what user needs and constraints can force developed countries to localize their foreign-owned MSRPs.

8.7 Conclusion

This study investigated why and how foreign organizations localize their MSRP in developing countries and the consequences thereof. The literature review in this study revealed that the phenomenon is under-studied, especially in the context of developing countries. This study traced the experience of a foreign organization that has successfully localized its MSRP in Ghana, a developing country in West Africa, to explore this under-researched area. The research findings proved that MSRP localization in a developing country is far more complex and cannot be viewed as a mere direct translation of contents from English to local languages. The findings further provided some important information to foreign entrepreneurs regarding how they can successfully localize their MSRPs to fit the needs and constraints of developing country users and the consequences they are likely to encounter. Previous studies on MSRP in developing countries as noted have focused mainly on the formation, adoption and implementation of MSRPs. The

originality of this study, however, stems from being arguably the first to investigate the localization of foreign-owned MSRP in a developing country.

To fill the gaps identified in the digital platform literature, this study drew on an interpretive case study approach and BOT to investigate the process by which foreign-owned MSRPs deployed in developing countries can be localized. This was required to properly address the questions that underpin the study. Based on the findings from the case organization, this study provided rich insights into the localization of foreign-owned MSRPs.

The study revealed that the motivation for localizing foreign-owned MSRPs in developing countries is the need to respond to the level of fraud and mistrust with online transactions. The study also showed that the rationale for localization of foreign-owned MSPs is motivated by the need to adapt to the poor Internet speed and high cost of Internet bundles in developing countries. The study further revealed that foreign organizations who deploy their MSRPs in developing countries decide to localize their platform to adapt to the changing status of developing country payment methods.

In terms of how foreign firms localize their innovations in developing countries, the findings reveal the various activities that occur within the localization process as follows. First, the findings show that the foreign-owned MSRP localization process commences with the identification of issues that affect their performance and use in a developing country. Second, the formation of a cross-cultural localization team. Third, making translations and adaptations to the foreign-owned platform and finally, making maintenance. The analysis revealed that these activities if carried out

can help localize a foreign-owned MSRP that adapts to the needs and constraints of developing country users. The study also points out that the use of localized MSRPs can increase suppliers and advertisers' e-sales, improve public trust for transactions, delay transactional time, and share transactional risks. This study, therefore, hopes that the identified findings and recommendations may guide platform designers and foreign entrepreneurs in their MSRP localization efforts.

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