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The Business Case for a Regional Digital Payments Policy for Micro, Small and Medium Enterprises (MSMEs) in COMESA

A Digital Financial Inclusion Plan for MSMEs

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This report was developed as part of the core programs under the COMESA Business Council's (CBC) Digital Services Workgroup. The business case report presents a justification for establishing legal frameworks and practical digital financial solutions. These solutions promote affordable and transparent cross border transactions, for low value -high volume retail markets that are primarily driven by Micro, Small and Medium sized Enterprises (MSMEs) including women and youth. The overarching vision is to strengthen cross-border trade, regional market access and boost intra- Africa trade in COMESA and the larger continent.

The report covers fieldwork that was conducted in 2019 and early 2020, with validation done in 2020. The CBC Digital Financial Inclusion Advisory Committee members which comprises of private -public stakeholders supported the field missions. The missions were carried out in Egypt, Ethiopia, Kenya, Malawi, Mauritius, Rwanda, Tanzania, Uganda and Zambia. The report is based on interviews and field observations with banks, Mobile Network Operators (MNOs), payment system regulators, Ministries of Finance and ICT, Fintech companies, Small and Medium Sized Operators, regional manufacturing companies, cross border associations, vendors and suppliers. Specifically, the study focused on women-run operations at the national and cross-border levels, in a bid to address their specific requirements within the digital financial ecosystem. The support, time and contribution from all these stakeholders which ensured an in-depth and robust assessment is considered invaluable. Extensive research and references from various credible regional and international sources, including relevant country reports, publications and market intelligence reports informed the Report.

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ACH	Automated Clearing House
AFDB	African Development Bank
ATM	Automated Teller Machines
API	Application Programming Interface
ASEAN	Association of South East Asian Nations
B2B	Business to Business
B2C	Business to Consumer
BCEAO	Central Bank of West African States
BIS	Bank for International Settlements
BNR	National Bank of Rwanda
BoP	Bottom of the Pyramid
BoT	Bank of Tanzania
BoU	Bank of Uganda
BoZ	Bank of Zambia
C2C	Consumer to Consumer
CBC	COMESA Business Council
CBE	Central Bank of Egypt
CBK	Central Bank of Kenya
CCBG	Committee of Central Bank Governors
CEMAC	Economic and Monetary Community of Central Africa
CENFRI	Centre for Financial Regulation and Inclusion
COMESA	Common Market for Eastern and Southern Africa
CSD	Central Securities Depository
DFI	Digital Financial Inclusion
DFS	Digital Financial Services
DLT	Distributed Ledger Technology
DRC	Democratic Republic of Congo
EAC	East African Community
EAPS	East Africa Payment System
EBC	Egyptian Banks' Company
EFT	Electronic Funds Transfer
FINTECH	Financial Technologies
FSTAP	Financial Sector Technical Assistance Project
FATF	Financial Action Task Force
FMI	Financial Market Infrastructure
FSDP	Financial Sector Development Plan
GBA	Global Banking Alliance for Women
GDP	Gross Domestic Product
GePG	Government Electronic Payment Gateway
GPI	Global Payments Innovation
HCPI	Harmonized Consumer Price Index
ICT	Information and Communications Technology
IFC	International Finance Corporation
IOSCO	International Organization of Securities Commission

IMF	International Monetary Fund
ISO	International Organization for Standardization
MFI	Micro Finance Institutions
MINIMCOM	Rwandan Ministry of Trade and Commerce
MITASS	Malawi Interbank Transfers and Settlement System
MNO	Mobile Network Operators
MoU	Memorandum of Understanding
MSME	Micro, Small & Medium Sized Enterprises
MTO	Money Transfer Operator
NFC	Near Field Communication
NISR	National Institute of Statistics Rwanda
NLP	Natural Language Processing
NPS	National Payment System
OBeP	Online Banking ePayments
OECD	Organization for Economic Co-operation and Development
PoS	Point of Sale
PSFU	Private Sector Foundation Uganda
PSP	Payment Service Providers
QR	Quick Response
REPSS	Regional Payment and Settlement System
R-NDPS	Rwanda National Digital Payment System
RTGS	Real Time Gross Settlement System
RTP	Real Time Payments
RTNSS	Real Time Net Settlement Systems
SADC	Southern African Development Community
SAMOS	South African Multiple Option Settlement
SARB	South African Reserve Bank
SDG	Sustainable Development Goals
SEPA	Single Euro Payments Area
SIRESS	SADC Integrated Regional Electronic Settlement System
SIPS	Systemically Important Payment Systems
SMS	Short Message Service
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TIPS	Tanzania Instant Payment System
TIPS	Target Instant Payment Settlement
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
VR	Virtual Reality
WAEMU	West Africa Economic and Monetary Union
WTO	World Trade Organization
ZAR	South African Rand
ZECH	Zambia Electronic Clearing House
ZIPSS	Zambia Interbank Payment and Settlement System

ABSTRACT

This report provides a business case and policy framework for a digital integrated regional Common Payment Scheme for Micro, Small and Medium Enterprises (MSMEs) in the Common Market for East and Southern Africa (COMESA) region. It is based on data that was collected and captured in 2019 and early 2020, which identified the digital payment systems as a focus area for improving the efficiency and performance of MSMEs in the region. The overall aim of the project is to define the prerequisite requirements for developing a digital integrated regional common payment scheme that can facilitate bottom of the pyramid informal traders (cross border and domestic) to carry out digital transactions that are transparent, affordable, secured, and provide access to formal working capital. It summarizes the digital payment systems in the nine countries within the COMESA region, and some selected countries outside the region which have strong cross border trade partnerships. It also mapped out the suitability of the available payment solutions across MSMEs' requirements within the individual countries as well as the region. The report also bridges the gaps that exist in the current digital payments solution regarding MSMEs, as well as business case and policy considerations towards a more harmonized digital payment solution for the region.

1. EXECUTIVE SUMMARY

The MSMEs represent 90 percent of Africa's economy and employ 70 percent of the continent's total population, a large proportion of which, is not connected to, and lacks the technical skills for using digital infrastructure. As a result of this, they are constrained, because they need access to buyers, information on products, pricing knowledge, standards requirements, buyer-seller relationships that are sustainable, i.e. a professional online interface with potential buyers.

In terms of economic performance in the COMESA region, the average growth rate slowed down to 4.7 percent in 2018, and was projected to reduce further to 3.5 percent in 2019, due to weaknesses in several member states (COMESA HCPI, 2019). The COVID 19 pandemic is further exacerbating the economic situation of the most vulnerable populations in COMESA. This is further compounded by the high unemployment rate that requires urgent investment stimulants.

The high unemployment rate, disproportionately affects women and youth, and has had a high impact on poverty and politics (Kaplinsky & Morris, 2019). Projections show that the continent's youth population will hit the 2.5 billion mark by 2050. In relation to this, it is critical to identify mechanisms that will enable an inclusive trade, which provides intensive employment and scope for enhanced activities by MSMEs (Economist, 2020).

The cross-border markets, which provide an opportunity for MSMEs to expand their enterprises, will simultaneously be addressing unemployment, and enhancing economic growth within the COMESA region. While focusing on the ASEAN countries, Lopez-Gonzalez (2019) argues that digital transformation presents new opportunities for MSMEs to participate in, and benefit from trade. This results in a 10 percent increment in internet usage, which is associated with a 3.4 percent and 3.9 percent increase in trade in goods and services respectively. From the foregoing, it is evident that the adoption of digitalization will enable MSMEs to increase their business activities, because it will minimize some of the constraints associated with exporting. These constraints include the regulatory barriers and compliance costs, such as the need to comply with regulatory regimes of different countries, and the risks associated with money laundering. In addition to this, dependency on intermediaries and information asymmetries associated with doing business in different countries, will also be reduced while facilitating supply and demand.

This report, which was commissioned by CBC, provides the business case and policy framework for a digital integrated regional common payment system for MSMEs within the COMESA region. The aim of the policy framework is to facilitate the design, development and deployment of an integrated, low cost, interoperable and fraud resistant Digital Financial Services (DFS) infrastructure that serves MSMEs. The proposed digital common payments scheme for MSMEs specifically focuses on women and youth enterprises which have been identified as MSMEs, and the customers they transact with at the bottom of the financial pyramid. Further, the proposed scheme is consistent with initiatives by different countries in the region that are aimed at moving towards a cashless economy in-line with the Maya Declaration[1]. The business case report, which has taken into consideration the specific coordination complexities of cross border payments, notably, the multiple systems, different currencies, different legal and regulatory regimes, and inherent risks related to money laundering and terrorist financing, will guide the proposed policy framework (Bech, Faruqui and Shirakami, 2020).

Chapter two of this report provides a macroeconomic overview of the COMESA region. It also points out the low economic growth within the region, as well as the relatively low intra-regional trade by MSMEs in COMESA, averaging about six (6) percent of the global trade. These growth rate is insufficient to grow inclusiveness, eliminate poverty or attain the Sustainable Development Goals (SDGs) in the region by 2030 (COMESA HCPI, 2019). This disproportionately affects women and youth.

[1]The Maya Declaration, is the Alliance for Financial Inclusion's (AFI) initiative to encourage national commitments to financial inclusion. (https://www.afi-global.org/maya-declaration)

This report shows the various gaps that necessitate the building of a more inclusive digital transaction based system that will allow more women to participate in trade and to reap the economic benefits of regional integration, given that women and the youth, constitute over 70 percent of small-scale cross-border traders (AFDB, 2019a). The World Trade Report (2017a) suggests that, owing to the fact that time and mobility constraints are greater for women, particularly those with children, technological developments such as e-commerce can have a positive impact on work for women.

Chapter three of this report provides an overview of the key trends within the global payment ecosystem, and summarizes the regional payment system initiatives in Africa, including: SADC Integrated Regional Electronic Settlement System (SIRESS); West Africa Economic and Monetary Union (WAEMU); East Africa Payment System (EAPS); Economic; Monetary Community of Central Africa (CEMAC); Regional Payment and Settlement System (REPSS); and Pan Africa Payment and Settlement System (PAPSS). Selected examples from Asia-Pacific, the Society for Worldwide Interbank Financial Telecommunication (SWIFT)-Asia Pacific Initiative and Europe's Target Instant Payment System (TIPS) have also been included to provide a broader context, while highlighting the importance of cross-border payments to economic development across the world. The study focused on existing cross-border payment capabilities, and thus highlighted key learning points that were derived from the design. It also emphasized on the implications of the design features on the value proposition of a digital payment system, with a specific focus on MSMEs.

It is important to note that, while traditionally, cross-border payments have always relied on correspondent banking[2], Rice, von Peter and Boar (2020) observed a declining trend in the number of correspondent banks. This could potentially result in: higher costs for cross-border payments; less diversity in available products or services; and even a loss of access to the global banking system, all of which could in turn lead to greater use of informal and unregulated payment networks. Further, cross-border payments have additional complexities due to increased compliance costs including the need to comply with regulatory regimes of different countries, and the risks associated with money laundering. This necessitates the reduction of additional costs by standardizing the processes.

Chapter four of this report provides an overview of the findings that were got from the field missions that were conducted in nine (9) countries, as well as the macro-economic conditions, and payment system landscapes, as presented for each country. It provides a review of the current landscape for digital financial services, while considering at the capabilities within the countries, and across the region. It is evident that the population within the COMESA region is fairly young with a median age of 17 years, making it highly receptive to new technology, however, regional trade remains relatively low. Over the past decade, COMESA region's payment landscape has undergone significant changes, especially the explosion of non-financial institutions, such as the Mobile Network Operators (MNOs), Payment Service Operators (PSOs) or Payment Service Providers (PSPs), and retailers. However, the biggest challenge has been that of accessing finance, which has been worsened by the fact that, either the poor people lack or have a low credit rating. Despite being the leaders in mobile financial services, most MSMEs do not have financial data on their records.

Other notable trends in the payment landscape within the region, include: the convergence of e-commerce and mobile payments through the uptake of smart phones and mobile applications; the adoption of e-payment by government organizations to capture revenue (e.g. taxes and utilities); and disburse payments (e.g. pension and social benefits). Notwithstanding this, the study highlighted the following challenges: limited or ineffective integration of regional DFS infrastructure; lack of competitiveness of intraregional remittance corridors; outdated policy frameworks that need a review and harmonization with a focus on standardization of license criteria and requirements; country-specific data-flow barriers and data localization rules; the continued prevalence of cash as a means of payment; and gaps in the network infrastructure across the different countries that were surveyed. Furthermore, while different countries within the COMESA bloc participate in other regional payment systems, with the exception of SADC's SIRESS, uptake as determined by volume of transactions is relatively low (in the case of REPSS), while in the East African Community (EAC), Kenya dominates the transactions .

[2] Correspondent banking is an arrangement whereby one bank holds deposits owned by other banks and provides those banks with payment and other services

Chapter five of this report shows the different design models for the business case options as provided, that is correspondent banking, closed loop, interlinked, peer to peer, as well as decentralized and centralized models. The section concludes by suggesting different considerations for CBC with regard to a cross border digital integrated payment solution for MSMEs as follows:

Option 1 - To completely design a new system;

Option 2 - Consider leveraging existing regional payment systems;

Option 3 - Leverage open-source software designed to opening up economies

This opens up the possibility of providing or enabling a digital platform for MSME business transactions (including payments), which would support both domestic and cross-border trade for MSMEs, thus opening up the economies. This implies that appropriately digitized MSME-specific services are considered as separate components in the MSME value-chain, meaning that they are detached from payments, and will interface with the payment system as part of the business transactions. Ideally, such a digital platform would include: export credit guarantee schemes; access to credit for the transaction as such; customs and excise processes; any foreign currency specific requests; interfacing with logistics services; and digital letters of credit, among others. The system should be designed in such a way that it accommodates the uniqueness of every country in terms of rules, local structures, and the existing regulatory framework. For the benefit of the MSMEs, the system should be structured in such a way that it is affordable and uses a not-for-profit model.

Chapter six of the report provides the policy considerations for the implementation of a digital cross-border payment system for MSMEs in the region. There is an urgent need to harmonize the different policy frameworks across the different countries, while providing for the relevant institutional, and political support to ensure effective coordination and successful implementation. The chapter identifies policy gaps that are evidently existent in the region. These gaps make it difficult to open up economies for trade and payments. There is need for country level ministerial commitments to harmonize policies, so as to ensure that trade and payments happen seamlessly.

The evaluation of options, including recommendations and conclusions are presented in Chapter seven of this report. This section reiterates that a digital platform for MSMEs, would require two broad components: the business component (trade, financing, logistics etc.); and the payment component (ideally, low cost and real time). In order to push up the volumes of transactions, it may also be critical to create synergies and leverage existing initiatives, which are focused on the business component notably, the African Development Fund's Tripartite Capacity Building Programme[3]. Emphasis should also be put on the dissemination of trade related information through platforms such as the African Development Bank's (AFDB) 50 Million Women Speak Platform[4]. After pushing up the trade through the inclusion of the MSMEs and the informal sector, it may also be critical to create synergies and leverage the existing payment systems.

Appendix 1 of this report presents the methodology, which was used in the study that focused on extensive engagements with sector experts and MSMEs across the nine (9) selected countries within the COMESA region. These included questionnaire surveys, as well as interviews and Focused Group Discussions (FGDs) with relevant stakeholders. It should be noted that stakeholders included regulators and industry drivers from telecommunications industry, financial services industry, manufacturers, informal cross border traders, and farmers, Ministries of Finance, Central Bank governors and non-bank operators. The nine countries were selected based on their sub-regional trading partnerships.

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[3] Seeks to improve transparency in trade, speed up the resolution of non-tariff barriers (NTBs), while enhancing awareness of traders and the business community on the market access opportunities.

[4] 50 Million African Women Speak Project (50MAWS) is a digital networking platform to enable women access financial and non-financial information including sharing of experiences, mentorship, and access to markets among others. The project is supported by the African Development Bank (AfDB) and implemented in partnership with EAC and ECOWAS in 38 countries in the three Regional Economic Communities

2. INTRODUCTION

2.1 Objectives and Scope of the Study

The objectives of the business case report are to:

a) Develop an analytical business case report to motivate the development of a regional common payment policy and framework that supports a practical solution, which will digitalize MSMEs through financial services for the COMESA region;
b) Provide a comprehensive background of the existing landscape for DFSs or payments nationally and regionally within the COMESA region, the stakeholders involved in the policy and regulatory landscape, and the market demand for further regional payment system integration; and
c) Undertake a comparative regional and global review of existing common payments policy frameworks, and recommend the best models for the regional common payment policy for MSMEs in COMESA.

The envisaged regional digital common payment policy for the MSMEs framework, opens up a wide range of new opportunities for scaling up, reducing costs, and enabling the creation of new business models that can challenge existing ones in radically novel ways. According to the Organization for Economic Co-operation and Development (OECD), the use of digital tools enables access to international markets for micro enterprises (OECD, 2017).

The business case report provides a foundation for the development of the regional policy framework and business model for the common payment scheme for MSMEs. The overall objectives include:

a) Harmonized common payment policy for MSMEs in Africa, with a specific focus on the COMESA region;
b) Increased intra-regional trade through the formalization of MSMEs, and in particular cross- border traders, small-scale farmers and women entrepreneurs into digital financial services; and
c) Increased sustainability of MSMEs through efficient and competitive platforms, which promote the transaction of volumes of products and services across borders at minimal costs to informal industry. This in turn creates increased demand, larger market shares for MSMEs, and leads to job creation.

2.2 Background

2.2.1 Trade Outlook in COMESA

In 2018, the total exports in COMESA amounted to US$ 113 Billion, the import bill was US$ 196 billion, with trade deficit of US$ 83 billion being recorded. Total trade for the region amounted to US$ 309 billion.

The top export markets for COMESA were: the European Union - with a market share of 32 percent; South Africa (13 percent); China (6 percent); United Arab Emirates (6 percent); and Switzerland (5 percent). On the other hand, the key import sources were: European Union (32 percent market share); China (20 percent); USA (8 percent); India (7 percent); and South Africa (7 percent).

COMESA's exports are largely driven by manufactured products, which account for 40 percent of the total exports. Other important sectors include, fuels, ores and metals.

2.2.2 Macroeconomic Outlook in COMESA

The COMESA region is composed of 21 countries, with a population of over 550 million people. Three (3) countries namely the Democratic Republic of Congo (DRC), Ethiopia and Egypt constitute over 50.77 percent of the total population in the block (AFDB, 2019). In 2018, the COMESA region welcomed two new entrants, Tunisia and Somalia.

In terms of overall economic performance, COMESA has a combined Gross Domestic Product (GDP) of US$ 824 billion, as highlighted in Table 1 below. This provides an average GDP per capita for the region of US$ 1,485.10 (AFDB, 2019).

Table 1: Select Macro-Economic Indicators

Country	Ppn size (2017) Million	Ppn Growth (2017-18) Million	GDP at Current prices (Billion)	Intra-tripartite Imports (percent of intra-Africa imports)	Intra-tripartite Exports (percent of intra-Africa exports)	GDP per Capita-2018 (current US$)
Burundi	11.9	-0.7	3.1	97	96	275.4
Comoros	0.8	0	0.632	84	81	1445.5
DRC	82.2	1.8	44.7	89	77	561.8
Djibouti	0.9	-0.8	2.1	79	87	2050.2
Egypt	95.2	3.2	263.7	44	51	2549.1
Eritrea	5.5	1	6	69	53	811.4
Eswatini	1.3	-0.2	3.3	100	81	4140
Ethiopia	104.3	4.9	93	94	93	772.3
Kenya	48.5	2.8	77.3	82	91	1710.5
Libya	6.4	0.3	47.8	79	67	7235
Madagascar	25.6	0.7	10.3	66	77	460.8
Malawi	18.3	-0.2	6.2	96	98	389.4
Mauritius	1.3	0	14.4	98	99	11238.7
Rwanda	12.2	0.1	9	94	97	773
Seychelles	0.1	0	1.9	99	98	16433.9
Somalia	11.4	3.6	4.7	83	85	314.6
Sudan	42.2	-0.4	124	62	67	977.3
Tunisia	11.5	0.1	41.6	43	36	3446.6
Uganda	41.7	1	33.1	82	59	643.1
Zambia	17.2	0.2	24.2	100	100	1539.9
Zimbabwe	16.3	-1.9	12.9	94	98	2147
Total	**554.8**		**823.932**			
Source: AFDB, 2019						

Table 1: Select Macro-Economic Indicators

Among the countries in the study, Ethiopia and Egypt constitute 36 percent of the total population in the region. They also have the highest population growth standing at 4.9 percent and 3.2 percent respectively. Mauritius is a significant outlier in terms of economic size, with a GDP per capita of US$ 11,200, almost six times the size of Egypt. Furthermore, other than Kenya (US$ 1,710) and Zambia (US$ 1,539), the rest of the countries have relatively small economies, with GDP per capita of under US$ 1,000.

Economic growth in the region is a function of: increased public and private construction investment; improved conditions for doing business (including cross border trade); improved global environment; and growth in agricultural production in countries where weather conditions remain favorable (COMESA HCPI, 2019). This is further compounded by increasing price levels, as a result of inflation, as measured by the Harmonized Consumer Price Index (HCPI-COMESA). In September 2019, the COMESA regional year-on-year inflation rate stood at over 23.4 percent (COMESA HCPI, 2019).

Fig 1: HCPI-COMESA region year on year inflation rate

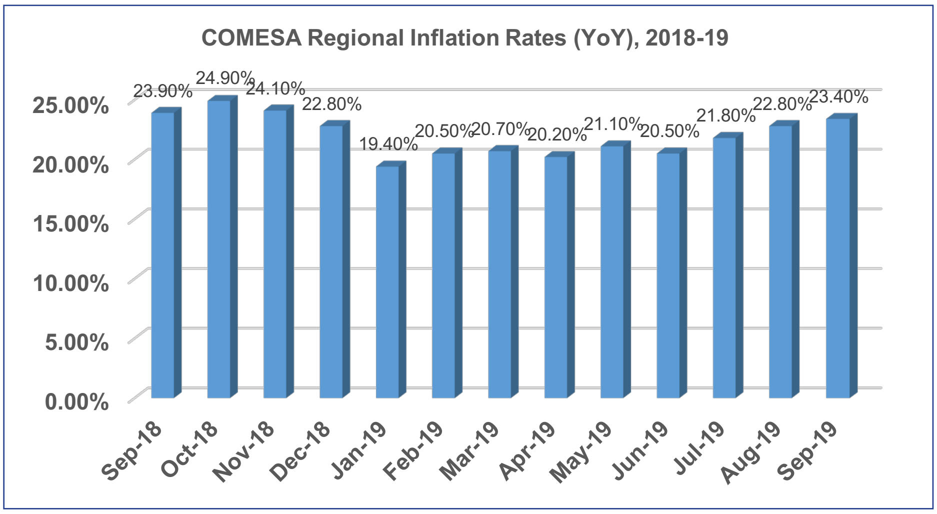

Figure 1: HCPI-COMESA region year on year inflation rate

The COMESA region's average growth decelerated to 4.7 percent in 2018, down from 7.5 percent recorded in 2017, and was projected to decrease further to 3.5 percent in 2019, due to weaknesses in several member states. The current growth rates are not sufficient to grow inclusiveness, eliminate poverty or attain the SDGs in the region by 2030 (COMESA HCPI, 2019). This is further compounded by the high unemployment rate that requires investments' stimulation.

2.3 Women and Youth

Trade plays an important role in driving women's economic empowerment. Consequently, there is need to build a more inclusive payments system that will give more women a chance to take part in trade, and reap from the economic benefits of regional integration. This is because women and youth constitute over 70 percent of all small-scale, cross-border traders (AFDB, 2019). The World Trade Report (2017) emphasizes on the crucial role that technological developments such as e-commerce, can play in eliminating time and mobility constraints for a majority of women, particularly those with children.

Thus, the proposed digital payments scheme has the potential of leveraging the existing platforms, notably the AFDB's 50 Million Women Speak Platform, to disseminate information to a wider audience, particularly women.

2.4 Problem Statement

Over 95% of all firms in Africa are MSMEs (Hatega, 2007; Kauffmann, 2005), contributing an estimated 20-25 percent of the COMESA regions GDP[5]. Further, Bekele & Muchie (2009) used binary logistic regression analysis of MSMEs in Ethiopia to identify key predictors of viability and long-term survival. The researchers concluded that MSMEs have the potential of alleviating extreme poverty among the masses, by generating employment opportunities for the poor.

Similarly, Kaplinsky & Morris (2019) assert that reliance on large firms as the main drivers of trade is problematic for Africa, given the need for a more inclusive synergistic cross- border trade and an economic growth path, which is more employment intensive and decentralized. It also requires a path that provides a scope for enhanced activities by the indigenous and small-scale industries, such as MSMEs. It is therefore important to focus on initiatives that spur the growth and scaling up of MSMEs in the region.

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[5] https://www.comesa.int/wp-content/uploads/2019/11/PRESS-RELEASE-COMESA- percentE2 percent80 percent93-EU-Sign- percentE2 percent82 percentAC8.8m-for-RECAMP.pdf

Lendle & Olarreaga (2017) assert that in a world where income inequality is driven by an uneven distribution of capital rents, online markets help in reducing the income inequality, by providing the smaller firms with access to the international markets. The cross-border markets can be very difficult for MSMEs to penetrate. However, the MSMEs ought to actively participate, given the increasing acceptance of the digital space as the marketplace for trade. This is further compounded by COMESA's geography, which is a mix of landlocked, island and coastal countries, many of which have vast distances within and between them. In addition, the region has poor connections due to weak infrastructure for trade and logistics, and a high prevalence of non-tariff barriers.

Furthermore, a major stumbling block for MSMEs trading regionally, is that of access to cost-effective cross-border payments platforms, with a clear gap between what MSMEs require and what is provided by the banks. This is further compounded by lack of a regional integrated DFS infrastructure for MSMEs. In contrast, the expansion of Information and Communication Technology (ICT) has improved economic opportunities for women, and created avenues for exports in industries such as business services, telecommunication, and information services in Asia and the Pacific. Total trade in ICT-enabled services (i.e., digital trade in services) nearly tripled from US$ 403 billion in 2005 to US$ 1.1 trillion in 2017, and accounted for nearly two-fifths of trade in services over that time (ADB, 2019).

Another key challenge necessitating an integrated digital platform for MSMEs, is the paucity of data specifically for MSME cross border-flows. COMESA reports that only two countries, Rwanda and Uganda currently provide Small Scale Cross Border Trade (SSCBT) data flows in their main trade databases (COMESA TRADE Statistics, 2019).

The country site visits confirmed that, although some cross-border traders are successful, the pre-dominant profile of a cross-border trader is that of a relatively poor person at the Bottom of the Pyramid (BoP), who has a relatively low level of education, and trades in low-value goods, mostly in the agricultural value chain. The trader may cross several borders within a regional economic community where there are no visa requirements, taking two or three days to reach their trading destination, and might cross the same border several times a day.

The need for political will for regional integration and harmonization continues to be a significant driver of economic transformation, potentially impacting industrial and commercial activity across the region, which in turn affects the flow of payments. This is further exacerbated by the fragmented legal and policy frameworks, as well as the technological infrastructure. Consequently, the regional harmonization projects, including the digital payments platforms, could be key drivers for scaling up cross-border trade and the use of multiple local currencies across the region.

Additionally, transaction patterns are greatly influenced by international regulations that impose strong prudential controls, and operate at close to zero-tolerance to exposure to potential money-laundering and terrorist financing. Accordingly, a number of global banks have reviewed and rationalized their correspondent banking relationships, resulting in the reduction of foreign correspondent banks in the region (SWIFT, 2019). Moreover, divergent regulatory requirements, standards and systems between countries translate into increased costs and hassles for MSMEs and their clients (WEF, 2018). Other challenges include, the country-specific data-flow barriers and data localization rules, which can either make it difficult for payment service suppliers to operate within a market or raise the costs of doing so.

The demand side of the COMESA market is expanding and evolving, with agreements that enable free trade area, such as the African Union's Continental Free Trade Area (CFTA), providing additional opportunities for MSMEs, if adequately harnessed.

According to an International Trade Centre (ITC) survey, 28 percent of MSMEs respondents in Africa, who were engaging in e-commerce in 100-plus countries identified inadequate links between third-party e-payment service providers and local banks as the topmost obstacle to e-payment, compared to 16 percent in developed countries[6]. Foreign exchange controls featured as the second highest barrier to international e-payments (20 percent), with some respondents also citing the cost and risk of currency exchange, as well as difficulties in processing wire transfers and accepting foreign credit cards (ITC, 2017). More significantly, small-scale e-retailers with global customers will have to rely on the costly interbank cash transfers, in situations where regulations either prohibit or make it excessively expensive for an international e-payment solution to offer a services in a given market.

Further, despite the growth experienced with the mobile phone uptake, and the potential on related mobile payments, ITC (2016) reports that cash-on-delivery remains the preferred payment method, and is used in just under half of all transactions[7]. Part of this is attributable to the infrastructure 'gap' in the continent, estimated at about US$ 50 billion per year (Adesina, 2018), which results in relatively low ICT penetration levels, as well as financial literacy (WEF, 2017). However, Lapukeni (2015) used a dynamic panel model to assess the relationship between financial inclusion, ICT and intra-regional trade in COMESA. The researcher noted that, increased mobile phone penetration (as a proxy for ICT development), had impacted positively on intra-regional trade in COMESA i.e. a one (1) percent increase in mobile phone subscriptions, could result in a 0.91 percent increase in intraregional trade in the COMESA region.

[6] International Trade Centre (ITC). New Pathways to E-commerce: A Global MSME Competitiveness Survey. ITC, 2017; International Trade Centre (ITC). Bringing SMEs onto the E-commerce Highway. ITC, 2016

[7] International Trade Centre (ITC). Bringing SMEs onto the E-commerce Highway. ITC, 2016.

3. RATIONALE FOR A LOW-COST DIGITAL INTEGRATED COMMON PAYMENT SCHEME FOR MSMEs

3.1 Introduction

The global payments business continues to grow as a result of the increasing world trade, and the accelerated shifting away from cash to electronic and mobile payments. New payment providers are challenging incumbents for market share using technology to disrupt traditional networks, and business models across retail and wholesale payments. Broadly, a payment system enables payments to either be effected, or facilitates the circulation of money. This includes the agreements, systems, institutions, rules, laws and procedures. The Bank for International Settlements (BIS, 2005) alludes to the pivotal role that payment systems play in maintaining financial system stability, while reducing the costs and uncertainty of financial transaction settlements.

This section provides an overview of: the importance of a low cost integrated digital payment system; the key trends within the global payments system; the payments ecosystem; summarizes the regional payments system initiatives, in Africa, and selected examples from Asia-Pacific and Europe with a focus on cross border capabilities; and highlights the key learning points from the design and implications of these. It also looks at the value proposition of a digital payments system with a specific focus on MSMEs.

3.2 The importance of a low cost integrated digital payments system

The MSMEs encounter numerous challenges and complexities in managing and growing their businesses. At the core of every business, is its ability to buy and sell goods and services. Deloitte (2018) avers that, significant value can be unlocked for MSMEs by enabling them to strategically make or receive payments in a manner that attracts rewards, improves working capital, and drives efficiency or optimizes processes.

An integrated digital payments system in modern businesses, can enhance the operational efficiency of a business, which in turn translates to better pricing for customers, as well as making prompt payments. A well-designed digital payments system connects the critical payment processing function of the business to other vital systems, such as accounting, payroll and customer relationship management (CRM). This streamlines the processing of payments, business administration, and customer experience management.

Furthermore, Abdellaoui, Pasquet, & Bertheliera (2011) asserted that a low cost integrated digital payments system guarantees authentication, confidentiality, integrity and different payment system requirements, especially the economic ones because it reduces the transaction cost, and increases the return on investments (ROI) for the MSMEs.

Similarly, according to World Bank (2012), the past 25 years have witnessed a 10 per cent increase in the level of mobile phones penetration, a factor that has been associated with a 0.8 percent boost in GDP per capita in developing countries. The institution notes that a similar upsurge in broadband networks, could further increase economic growth by 1.4 percent to general.

3.3 Overall Payment System Landscape

The payments landscape is experiencing major developments that are related to the provision of payment services, and their regulation, supervision and oversight. The rapid pace of evolution has resulted in the emergence of new: providers; platforms; and payment tools on a regular basis. Similarly, as consumer behavior shifts with mobile based platforms becoming more ubiquitous, the expectation of omni-commerce emerges, which is the ability to pay with the same method whether buying in-store, online or via a mobile device.

This calls for the payment solution providers to adapt recalibration towards faster, simpler and secure mobile digital payments. Key considerations must include the following:

a) Real-Time Payments (RTP): Combines the availability of, settlement finality, instant confirmation, and integrated information flow, all in a payment made in seconds;
b) Expansion of Payments to Non-Physical Interfaces: Connected assistants, such as voice assistants and Virtual Reality (VR) become smarter and include additional functionality, with the enhancement of Natural Language Processing (NLP) and image recognition;
c) Distributed Ledger Technology (DLT)/Block chain: Enables all processing to be done over either a distributed system network or in the cloud, avoiding the usage of costly data centers or mainframes, potentially reducing transaction costs.
d) Unified Platforms: Open-source platforms designed for the mobile age that help with easy integration of various payment platforms which are powered by a single payment Application Programming Interface (API) and a set of supporting APIs.

Mastercard (2019) points to the fact that competitive economics is critical to cross-border commerce, with access to new payments technology, i.e. payments through social media, Near Field Communication (NFC) technology, Bluetooth low energy, and block chain, can provide cost-effective solutions, which deliver both speed and security.

Participants	• Card Networks e.g. VISA/Mastercard/Amex • Issuing banks • Acquiring banks • International Organization for Standards (ISOs) & Sub ISOs • Merchants • Card holders
Channels	Six (6) main payment channels based on market participants and underlying funding mechanisms: • Business to Consumer (B2C) • Consumer to Business (C2B) • Consumer to Consumer (C2C) • Business to Business (B2B) • Consumer to Government (C2G) - domestic resource mobilization • Government to Consumer (G2C) Payment systems can be broadly placed into one of the following four (4) payment channels: • Paper-Based systems i.e. cheques or drafts • Real Time Gross Settlement (RTGS) or High-Value Payments, commonly referred to as wire transfers. • Real Time Net Settlement Systems (RTNS) or Automated Clearing House (ACH) • Cards i.e. credit, debit and stored value cards. They are a fast-growing segment of the available methods for making and receiving payments. • Mobile i.e. via phone and initiated via SMS text message, mobile browser, downloadable app, contactless NFC, or quick response (QR) code. • Real-time, low-value payments provide consumers and businesses with the ability to conveniently send and receive immediate fund transfers directly from their accounts anytime.

Payment Schemes	• Online Banking e-Payments (OBeP) scheme is a type of payments network designed to facilitate online bank transfers or direct debits. They often allow for direct merchant integration and guarantee the payment to merchants. Other benefits are the relatively low transaction cost compared to cards, wallets or other alternative payments. • Three Party Model i.e. consumer, the merchant and the scheme. • Four party model i.e. consumer, the merchant, the issuer and the acquirer. Based on an interchange fee revenue model. • Single Euro Payments Area (SEPA) harmonizes the way cashless euro payments are made across Europe. Makes all cross-border electronic payments in euro, as easy as domestic payments.
Processes	• Payment transactions are processed through a variety of platforms, including brick-and-mortar stores, e-commerce stores, wireless terminals, and phone or mobile devices. The entire cycle usually takes place within two to three seconds.

Table 2: Payment system components

3.4 Regional Payment System Initiatives

Genesis (2016) pointed out that traditional cross border payment systems within the region rely on local banks, establishing correspondent banking relationships with banks in other countries in the region, and hold nostro[8] accounts with correspondent banks that initiate the cross-border payments made in USD. The correspondent banks then settle their transaction on a net basis, while using SWIFT to clear all transactions. This process is quite expensive as the local banks have to pay correspondent fees. Additionally, the settlement time is slow.

As a result, Central Banks in the region have been collaborating on the establishment of regional payments systems, which are international mechanisms that are designed to facilitate payments between residents of the participating countries. A multitude of regional payment systems are developing across Africa, including:

a) SADC Integrated Regional Electronic Settlement System (SIRESS)
b) West Africa Economic and Monetary Union (WAEMU)
c) East Africa Payment System (EAPS)
d) The Economic and Monetary Community of Central Africa (CEMAC)
e) Regional Payment and Settlement System (COMESA- REPSS)
f) Pan Africa Payment and Settlement System (PAPSS)

Payment System Initiative	Technical Specifications	Volume of Transactions
SADC Integrated Regional Electronic Settlement System (SIRESS)[9]	• RTGS • Facilitates the settlement of cross-border transactions in the SADC • Participants include Central Banks and financial institutions • Currently settles in South African Rand (ZAR), but work is ongoing on multi-currency regime • Also plans for: regional clearing capability for low-value (electronic funds transfer) credits and debits; regional clearing capability for card and ATM transactions; and regional central securities settlement systems	• 1,415 transactions/ day • Average value of daily transactions ZAR5.38 billion (US$283,703,055.80) (March 2018). • 83 participating banks • Seven (7) Central banks • 14 countries

[8] an **account** that a bank holds in a foreign currency in another bank
[9] https://www.sadcbanking.org/news/multi-currency-project/

West Africa Economic and Monetary Union (WAEMU)[10]	• Centralized governance structure under the Central Bank of West African States (BCEAO). • Based on a common currency • High-quality shared payment infrastructures for RTGS, automated clearing house (ACH), and card payments	• 140 participants • 14,5 million transactions per annum • US$ 92.1 million per annum (Dec 2018)
COMESA Regional Payment and Settlement System (REPSS)	• Multilateral netting system with end-of-day settlement • Single currency (US$ or Euro) is used for net settlement • COMESA Clearing House (CCH) acting as an agent of Central Banks	• Nine (9) participating banks • 1000 transactions per annum • US$ 77 million in transactions in 2020
East African Payment System (EAPS)[11]	• Transactions cleared through the respective EAC central banks with the use of SWIFT messaging. • Local banks required to maintain pre-funded accounts in all EAC currencies in the CBK to facilitate settlement that happens within a day.	• Five (5) countries • 18,307 transactions per annum • US$ 681 million in transactions per annum (CBK, 2018)
Economic and Monetary Community of Central Africa (CEMAC)	• Real-time gross settlement system (SYGMA) • Automated clearing system (SYSTAC) • Supports bulk payments at country and regional level	Still in transition stage of deployment
Pan Africa Payment and Settlement System (PAPSS)	• Cross Border Payment and Settlement Across Africa • A centralized payment and settlement infrastructure • Settlement will be on multilateral net basis and on daily basis • Payments will be in local currencies • USD settlement initially, but EUR will be supported in due course • Settlement Agent: Central Banks	Piloted in six (6) West African countries (Gambia, Guinea, Liberia, Sierra Leone, Ghana & Nigeria)

Table 3: Regional Payment System Initiatives

It is noted that, most of the regional payment systems above are classified as wholesale payment systems, i.e. for large-value transfers, mainly between banks. Given their systemic importance, wholesale payment systems are generally owned and operated by Central Banks of the respective countries. This may lead to the payment systems inadequately catering for small-value transfers that are typical with MSME trade. Furthermore, most of these initiatives are bank-led, facing the risk of sub-optimal system design and costly integration for MMOs/ FINTECHS to interface with bank protocols. There is therefore need to consider the inclusion of non-bank actors in the design of regional payment systems and in overseeing boards/governance bodies.

Retail payment systems are becoming increasingly convenient, instantaneous and available 24 hours a day, seven (7) days a week (Carstens, 2020). Within retail payments, there are person-to-person payments (e.g. transfer of money to a friend or family member), person-to-business payments (e.g. bill payments), business-to person payments (e.g. salary payments) and business-to-business payments. These payment systems are run by both private and public sector providers (Bech & Hancock, 2020).

[10] BCEAO 2018 Annual Report
[11] Information Sourced from The Kenya Financial Sector Stability Report, 2018

It can be argued that insufficient focus is normally put into the retail payment systems, i.e. low value, but high-volume transfers between consumers and businesses. While citing the SADC-TCIB system, which was expected to go live in 2020, Bech, Faruqui, & Shirakami (2020) pointed out that, projects are increasingly focusing on retail payments. The system was aimed at remittance payments across a number of African countries. Authorities should endeavor to ensure the harmonization of regulations across member states, in order to reduce administration frictions and costs. In addition to this, a clear legal hierarchy, which indicates that the supranational provisions override the national legal framework would be conducive.

Regulators/policymakers would also need to guarantee that guidelines pertaining to the systems are understood by all participants. Furthermore, the payment switch should be adequately resourced to ensure compliance by all participants.

3.5 Other International Initiatives

3.5.1 SWIFT Asia-Pacific Initiative

This initiative works with over a dozen banks in the Asia-Pacific region to develop the regional real-time cross-border payments service. According to SWIFT, the system would be based on its Global Payments Innovation (GPI) initiative, a cross-border payments service that had rapidly grown to account for about 25 percent of global SWIFT payment traffic by May 2018 (Faden, 2020). As at November 2019, a total of 120 banks had gone live, and were processing 85 percent of the transactions in the region. Transactions can take up to 30 minutes or less (Finextra Research, 2020).

The Asia-Pacific real-time cross-border payments system was developed through three phases. These were:

1) Phase 1 -Introduced a real-time GPI sub-scheme to enable real-time cross-border payments between regional banks that already use GPI.
2) Phase 2 - Extend the SWIFT GPI rails into existing real-time payment systems within each recipient country, to ensure that payments can be settled in real time, in each of the four countries whether or not customers' accounts were at banks connected to GPI.
3) Phase 3 - Link domestic real-time payment systems via SWIFT GPI to facilitate "full cross-border real-time payments" among their respective customers.

The initiative follows previous agreement among national payment systems in several Asian countries that were designed to facilitate real-time cross-border payments within the region. Several countries in the region signed a MoU authorizing the connection of their regional payment infrastructures, to enable real-time, cross-border payments. This is part of a broader, 10-year economic program within the Association of Southeast Asian Nations (ASEAN) (Bannister, 2018). The parties to the MoU reached a broad consensus to use ISO 20022 messaging standards, as a first step towards regional real-time payments connectivity. Current focus is on modernizing the existing architectures and models to enable them deal with "hygiene factors", such as security and regulatory compliance (Bannister, 2018).

3.5.2 TARGET Instant Payment Settlement (TIPS)

TIPS is a pan-European instant payment settlement service in central bank money (European Payments Council, 2017). It is in compliance with the Single Euro Payments Area (SEPA) instant scheme for PSPs and promotes efficiency and market integration, in the settlement of instant payments across Europe.

Main features: TIPS
1) Settlement in central bank money extended to 24/7/365
2) Payment transactions settled instantly, eliminating credit risk for participants
3) Balances on TIPS accounts included in minimum reserve calculations
4) Service providers reachable without opening a TIPS account (by being a reachable party)
5) Maximum price of 0.20 eurocent per payment for at least the first two years of operation
6) Targets efficient settlement in euro, but technically capable of settling other currencies

Table 4: TARGET Instant Payment Settlement (TIPS)

Table 4: TARGET Instant Payment Settlement (TIPS)

The main difference with the service provided by Automated Clearing Houses (ACH) is that TIPS only provides the service in the settlement of instant payments, whereas ACHs play an important role in the clearing layer. Any participant in an ACH necessarily has to have another account in the settlement layer – either in its own name or facilitated by a participant in the settlement layer – to discharge its responsibilities (see graphic below).

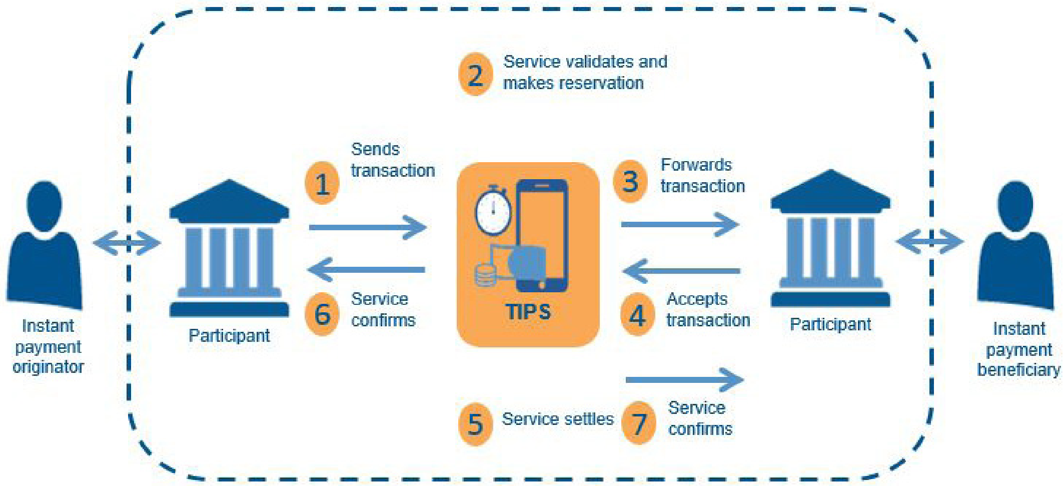

Figure 2: TIPS (Source: European Payment Council)

3.6 Key Observations and Reflection Aspects lessons from Regional Payment Systems Initiatives

Cross-border services are set to increase in popularity. This will therefore call for the realignment of domestic and regional solutions to international standards, systems and applications. Customers, both payers and payees, will be able to connect their devices, such as mobile devices and computers, directly to the payment services. Similarly, there will be less technical differences between domestic and international telecommunications, and the differences that currently exist between domestic and international payments will soon disappear.

a) Governance Structures

A cross-cutting theme across the highlighted regional system, is a governance structure that can be used to develop standards and technical guidelines that will interlink each country's system. This also includes the development of shared payments infrastructures for RTGS, ACH, card payments and other payment service providers.

Additionally, such a structure is essential for the design, development and monitoring of the implementation of common standards among members of the system. This will typically be done through the Central Bank. In the SIRESS systems, this is done through the South African Reserve Bank (SARB), with a SADC Payment System Project Team set up under the Committee of Central Bank Governors (CCBG) to provide leadership to facilitate the day-to-day implementation (Matongela, 2013). In WAEMU, it is done under the auspices of the Central Bank of West African States (BCEAO).

Key considerations - It is important to note that governance structures alongside common technical, operational and ownership guidance are critical elements for facilitating a payment system that is accessible to the widest possible range of payment providers. An unclear ownership, governance and operational structure will pose significant risks to the switch operations and functionality of the system. A comprehensive set of rules and regulations, which will be developed in collaboration with all the scheme participants, will be necessary in mitigating the operational risks that may undermine the customers trust in payment solutions.

b) Common Standards

Within the ASEAN system, the MoU initiatives were put into place to develop protocols and standards that would link the RTGS systems for each of the countries as a first step towards attaining greater payment system integration in the region. A similar scenario was witnessed with the EU- TIPS for European Union and the SIRESS for the SADC region.

Member States participating in SIRESS have structured the legal arrangements among themselves through a number of multilateral agreements, in view of the legal uncertainty that faces them. SADC countries have, however, already committed themselves to harmonize their legal and regulatory frameworks, and establish institutional and organizational structures that are conducive for the establishment of an integrated payments market.

Key consideration – On matters regarding the common standards, harmonization of the legal and regulatory frameworks is an important step towards attaining a fully integrated payment system.

c) Cost efficiency

The system is mostly used to undertake large-scale RTGS system transactions across borders. The fact that it is prefunded makes it difficult to plan for mobile money transactions that are often unpredictable (Cooper, et al., 2017).

Further, trade in multiple currencies necessitates the maintenance of correspondence accounts, which make provisions for an additional cost structure in the different countries. Bech, Faruqui, & Shirakami (2020) argued, that for instance, while values that were settled by SADC's SIRESS had grown over time, they still represent only about one (1) percent of the total number of values in the South African Multiple Option Settlement (SAMOS)[12]. The authors attributed this to the level of importance that is attached to the US dollar for making cross-border payments in the SADC region, and the relatively high liquidity management costs for the participating banks.

Key considerations: Limiting the cost of service provision while providing incentives for switching to the digital systems is essential for MSMEs. An integrated payment system with a multi-currency option would enable MSMEs to hold a single account for the entire region, thereby simplifying the import and export processes, and ultimately the transaction costs. However, the process of switching should not introduce additional barriers to trade and financial inclusion. Scheme governance and charging mechanisms play a pivotal role. Similar to the number portability switching that happened in Europe, the most practical way of limiting the risk of artificial price inflation for switching is that the charging mechanisms should be cost oriented and shared among members.

d) Membership

In some instances, progress has been hampered by the reluctance by member countries to trade in each other's currency. There is a discernible growth in the volume of transactions as concerns the regional payment systems using a common currency. For instance, with regard to the East African Payment System (EAPS), Anyanzwa (2019) concluded that resentment to the usage of each other's currencies resulted in the low uptake by other countries within the system, leaving Kenya to control over 98 per cent of the transactions.

Key considerations: Membership considerations should be formulated in binding agreements among scheme members. Membership should be open to all financial service providers, including FinTechs.

[12] The SAMOS system is an automated interbank settlement system provided by the South African Reserve Bank for banks to settle their obligations on an immediate real-time basis, or in a delayed settlement arrangement, providing guaranteed settlement. Large-value payments are settled one-by-one on a real-time gross settlement (RTGS) basis, while retail payments are settled as a batch on a deferred basis(www.resbank.co.za)

e) Full deployment of an infrastructure

It was noted that the existing infrastructure (national switches, and transmission networks) in some countries is outdated and, not interoperable with other digital payment systems in different countries across the COMESA region. There is therefore need to interface with other infrastructure, while ensuring that all cyber security and compliance aspects are adequately covered.

Key considerations: Participating countries must focus on modernizing the existing architecture and models to enable them deal with factors such as security and regulatory compliance as well as compliance with the requirements of regional scheme. Ideally, this would be through pre-agreed upon MoUs with specific timelines and schedules.

f) Customer experiences

Fragmented experiences across businesses create customer confusion, which results in a limited customer base, and limits opportunities for both the existing and new payment service providers. Emphasis should be put into attaining a single payment experience for customers (based on seamless system interoperability, comparable to mobile telephony), rather than a single payments platform.

It is also observed that while most of the regional payment systems provide an option for putting into place intra-regional trade payments, this has not been extensively used by Payment System providers (PSPs) in the region. This is attributable to the fact that multinational banks already have well established correspondent banking relationships in the region. Furthermore, pre-existing low levels of intra-regional trade demand, have resulted in relatively low intra-regional payments being made.

Key consideration: The development of a customer centric solution with relevant use cases in mind is necessary.

g) Payment System Enablement

The main consideration is that there is need to embrace an open and inclusive interface. An inclusive digital payments ecosystem consists of several building blocks and an enabling environment. The building blocks of such an ecosystem include: digital payment service providers (banks and non-bank payment service providers, including mobile money operators); a payment system that is part of the financial infrastructure; a distribution system (or channels and access points, including agents and direct digital access); an ICT and energy infrastructure; and an effective user identification system.

3.7 Value Proposition

The World Trade Organization (WTO) reports that 95 percent of companies globally are MSMEs, accounting for 60 percent of the world's total employment.[13] However, MSMEs face numerous obstacles when seeking to take part in international trade. In developing countries, exports by the MSMEs' accounted for only 7.6 percent of the total sales in the manufacturing sector, compared to 14.1 percent of the exports by large manufacturing enterprises (WTO, 2019).

Estimates from Mastercard (2018) indicate that the online opportunities for MSMEs currently stand at US$7.7 trillion for business to business (B2B), and US$2.3 trillion for business to consumer (B2C), which is projected to increase further. The global cross-border trade is particularly robust, with 57 percent of all online shoppers indicating they had made an online cross-border purchase during the first half of 2017[14]. Similarly, United Nations Conference on Trade and Development (UNCTAD, 2019) reports that cross-border business-to-consumer (B2C) sales reached an estimated $412 billion, accounting for almost 11 percent of the total B2C e-commerce transactions.

It is worth noting that intra-regional trade by MSMEs in COMESA remains low, averaging about six (6) percent of the global trade (Fig 3).

[13] https://www.wto.org/english/thewto_e/acc_e/ppp_msmes.pdf

[14] https://www.shopify.com/enterprise/global-eCommerce-statistics#GlobalInfographic

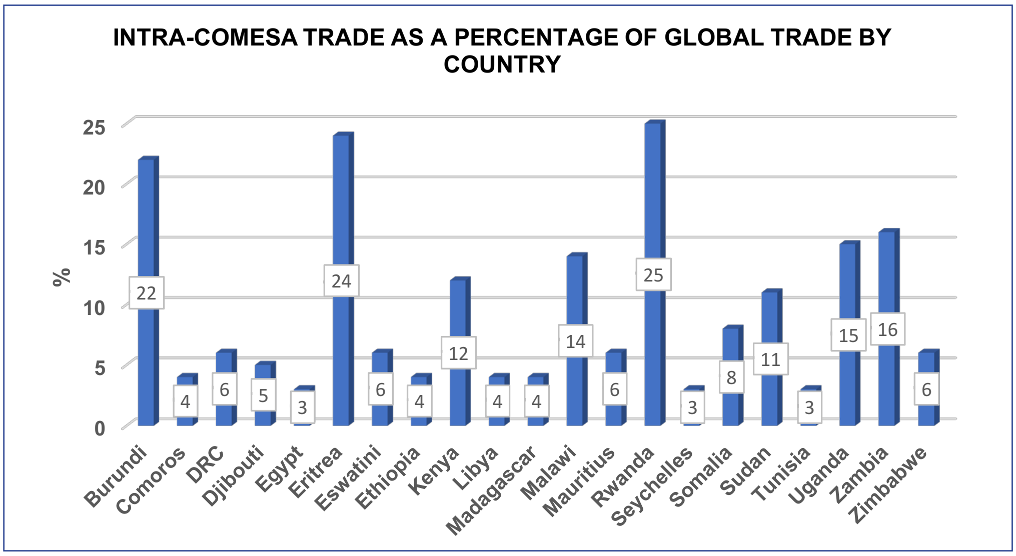

Figure 3: Intra-COMESA Trade

The cross-border market can be challenging for MSMEs to penetrate. However, the enterprises must take advantage of the ever-increasing acceptance of the digital space as the marketplace for trade, to actively participate in it. A major barrier for MSMEs trading regionally is that of access to cost-effective cross border payments, with a clear gap between what MSMES require and what financial institutions provide. This is also compounded by a lack of regional digital payment system for smaller enterprises. Thus, in order to help the MSMEs to enter into new regional territories, payment providers must remove barriers including the poor foreign currency exchange rates and policies, high cross border transfer fees, and slow settlement timescales.

3.8 Limitations

a) Supportive infrastructure such as internet, telecom network coverage, and partnerships between MNOs and actors that can provide financial services to agents is inadequate. This also includes the existing interoperability of different domestic payment systems including the availability of an approved safe and efficient underlying digital payment schemes that can process cross border payments across the region.

b) Information - Up-to-date, information on both the demand and supply of MSMEs, including the products and services on offer is not readily available to the public. Furthermore, even when such information is available, it may not always be widely communicated or presented in useful formats.

c) Political will - There is need for national political will and capacity to build the required infrastructure (in a bid to incentivize MNOs to deploy telecommunications infrastructure in remote areas) towards encouraging digital payments.

4.0 RESEARCH FINDINGS - COUNTRY REPORTS

4.1 Introduction

In this section, an overview of the key country findings from the field missions are presented. The macro-economic conditions in the country, an overview of the MSME sector in the country based on the survey conducted and provide a high-level review of the payment system landscape, including players, products and pricing from a cross border perspective are discussed. This section covers the summary of the nine (9) country reports. The full reports can be found at Appendices two (2) to 10 of this report.

4.2 Questionnaire Thematic Themes

A total of 205 questionnaires were analyzed, covering the nine (9) countries that were included in the study.[15] In terms of response breakdown per country: 25 percent of the responses were from Malawi, followed by Rwanda and Tanzania, at 18 percent and 15 percent respectively. The lowest responses were from Zambia, standing at just four (4) percent of all respondents in the country. Consistent with the project focus on women and youth, 68 percent of the respondents were female, while 32 percent were youth. In terms of the individual country analysis, each of the country's responses were analyzed based on three broad themes, consistent with the project objectives, i.e. demographic profiles, trade facilitation and e-commerce, and market access and penetration.

With regard to the demographic profiles, the analysis focused on the gender distribution, age, and level of education and entrepreneurial intent of the respondents. Entrepreneurial intent was defined as one's passion to be occupied in self-employment, start a business activity and make it a successful venture (Engle et al., 2010). Similarly, the profiles of the actual MSMEs were considered with respect to business sectors, location, registration status and business form.

Concerning trade facilitation and e-commerce, focus was on access to finance as an enabler for e-commerce transactions, and the existence and usage of transaction accounts. This acknowledges the fact that lack of finance has been widely cited as the major obstacle for starting a new business (IFC, 2017; Lakuma, Marty, & Muhumuza, 2019; Rhana, 2016), and hence facilitating trade and ecommerce transactions require finances. The limitation is intense in developing countries because of the underdeveloped financial sector. It has also been observed that, women find it even more difficult to access finance from formal institutions, hence they tend to rely more on informal credit like savings and credit clubs to save towards start-up and/or working capital.

The analysis on market penetration and access focused on the role of trade associations in enabling access, usage of digital platforms to provide access to markets, sources of market information, and the cost of mobile platforms.

[15] Due to translation constraints, the country questionnaires for Egypt were excluded in the analysis

4.3 KENYA

4.3.1 Observations from MSMEs in Kenya

4.3.1.1 The MSME Profile

The Micro and Small Enterprises Act of 2012, defines MSMEs as shown in Table 5 below:

Size	Employees	Annual Turnover
Micro	< 10	< Ksh 500,000 (US$4,800)
Small	10-49	Ksh 500,000 - Ksh 5 million (US$4,800-US$47,000)

Table 5: MSME Classification: Kenya

The profile of the MSME owners was analyzed on the basis of age, level of education, gender, location and the reason for starting the business.

4.3.1.2 Demographic Profile

With regard to gender, 44 percent of respondents were female. In response to their reasons for starting a business, 89 percent and 71 percent of the male and female respondents respectively reported the pursuit of entrepreneurial opportunities. The remaining 29 percent of the female respondents attributed the reasons behind their starting a business to the search for means of survival. In terms of qualifications, about 43 percent of female respondents indicated that they had tertiary qualification.

4.3.1.3 Trade Facilitation and Ecommerce

With regard to access to finance, 66 percent of entrepreneurs started their business using money from their own savings, 22 percent were financed by family and friends, while six (6) percent accessed informal credit. Only six (6) percent of the MSMEs managed to access formal credit from formal financial institutions.

4.3.1.5 Market access and penetration

Concerning the issue of market access and penetration, only six (6) percent of the respondents indicated that they were export oriented, 44 percent of respondents were trading within their municipality of operations, and 31 percent go further into the province, while 13 percent traded countrywide. Additionally, it was established that trade associations provide supporting structures to enable MSMEs to grow, access markets and legal support. Half of the respondents belonged to trade associations. Membership to such associations was also positively correlated with business maturity, with 58 percent of the respondents who had been in business for over three (3) years indicating that they belonged to the trade associations. On the contrary, only 25 percent of the MSMEs that had less than three years in business, were members of trade associations.

A majority (88 percent) of the respondents, reported that they thought the digital business field was one of the most important indicators of success in the 21st century economy, while 94 percent of the MSMEs consider social media to be important for business. At the same time, 56 percent of the MSMEs considered mobile payments to be expensive, while 25 percent thought they are affordable.

4.3.2 Payment Infrastructure Landscape

The Central Bank of Kenya's (CBK) Financial Sector Stability Report, 2018 alludes to the evolution of payment systems in the country, against the background of innovations in financial technologies (FinTechs), and the entrance of technology firms into finance (TechFins) that support electronic-based payment systems. These innovations have accelerated financial inclusion, reduced the cost of transactions and handling of cash in the economy, as well as decreasing the velocity of money, thus reducing inflation as people start saving on their mobile phones instead of spending.

Box 1: MSMEs and Cross-Border Engagements in their own words - Kenya

- Informal traders hugely rely on informal institutions to set up and support their businesses.
- To avoid carrying cash, Kenyan traders indicated that they convert their currency into US dollars and wire it informally to where they are intending to collect on the other side. The same happens when they are returning after selling it in another country.
- The informal remittance house charges a minimum of three (3) percent but it is reliable.
- They also use transaction matching as a way of moving money – hawala system
- Market information is obtained by word of mouth and sometimes it gets distorted resulting in market players acquiring the wrong products.
- The traders cannot enter some markets forcing them to use middleman.

Box 2: Stakeholder Engagements in their own words – Bayer Kenya

- Bayer uses the cheque system for payments.
- Mainly deals with bulk seed and all payments are done through the bank.
- Bayer's smallholder farming division regularly meets with farmers to fully understand their needs and ensure they are getting the resources and training that they need to turn their farms into successful businesses.
- Bayer aims at empowering smallholder farmers through innovative and collaborative partnerships that expand agricultural know-how to address their most challenging issues.

4.4 TANZANIA

4.4.1 Observations from MSMEs in Tanzania

4.4.1.1 MSME Classification

The Tanzanian Government defines MSMEs according to sector, employment size, and capital invested in machinery (Table 6).

Size	Employees	Investment	Investment (Us$)
Micro	≤ 5	Up to Tsh 5m	Us$2,100
Small	5-49	Tsh 5 m- Tsh 200m	Us$2,100 -Us$86,000
Medium	50 -99	Tsh 200m – Tsh 800m	Us$86,000 – Us$345,000
US$1 approximately Tsh 2,300			

Table 6: MSME Classification: Tanzania

4.4.1.2 The MSME Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business.

4.4.1.3 Demographic Profile

With respect to gender, 94 percent of respondents were female. Only 26 percent of the respondents were under the age of 35, with the bulk of respondents, 74 percent being adults, i.e. over 35 years of age. Forty-eight (48) percent of the female respondents had attained tertiary education.

4.4.1.4 Trade Facilitation and Ecommerce

To finance their businesses, the respondents indicated a strong reliance on family and friends (42 percent), as well as own savings (36 percent). Furthermore, the study revealed that 81 percent of the respondents had transacting accounts.

4.4.1.5 Market Penetration and Access

Only seven (7) percent of the respondents indicated that they were export oriented, with 42 percent trading within their municipality of operations, 19 percent going further into the province, while 32 percent traded countrywide. The study shows that 87 percent of the respondents were members of trade associations. The associations are considered useful for accessing both local and foreign markets. It was also observed that 61 percent of the respondents made use of unregistered middlemen to access markets.

Ninety-seven (97) percent of the respondents cited the social media as an important vehicle for business, while 52 percent of the MSMEs considered the use of mobile payments in business to be expensive and 16 percent thought they were affordable.

4.4.2 Payment Infrastructure Landscape

The payment system landscape utilized by the government includes the: Treasury Single Account (TSA); Tanzania Automated Clearing House (TACH); Tanzania Interbank Settlement System (TISS); and Government Electronic Payment Gateway (GePG). Cross-border trade is facilitated through the East Africa Payment System (EAPS) between Tanzania and other EAC countries.

Mobile money has helped many Tanzanians to transact within a few seconds despite the vast distances between some of them. Mobile money services have become popular in a decade with the major players including Vodacom's M-Pesa, Tigo Pesa, Airtel Money and Ezy Pesa competing against each other for customers. This brings additional benefits to the population in terms of number of access points and cost of transacting.

4.4.3 Policy and Regulatory

The Bank of Tanzania (BoT) is responsible for enforcing the: Payment Systems Act, 2015 and its regulations; Payment Systems Licensing and Approval Regulations, 2015; and Electronic Money Regulations since enactment in 2015. Given the various challenges that were experienced from regulators' and payment system providers' perspectives, the bank is in the process of reviewing the Act and its regulations, by gathering issues that were noted during implementation and recommend amendment(s) or enhancement of the legal and regulatory framework. The process is important because, the NPS Act 2015 and its regulations provide compliance and standards for the payment system operators to ensure security and efficiency of the National Payment System (BoT, 2018).

Box 3: MSMEs and Cross Border Engagements in their own words - Tanzania

- Women traders indicated that they feel violated during "body search" for hidden goods
- Informal traders end up paying bribes for confiscated goods
- Information gaps and market linkages are limiting their potential.
- Cost of data to go online is a bit on the higher side
- Access to affordable working capital is a major setback to trade.
- Women were robbed at gun point in the course of their intra-regional trade and they lost cash
- The development of the Regional Common Payment Policy and Framework will be an effective solution and motivation for their businesses.
- Language – there is need for a multilingual platform that will support communication among MSMEs in different countries or regions. Use of both Swahili and English was encouraged

Box 4: Stakeholder Engagements in their own words – Coca Cola Kwanza

- Stakeholders in forward integrations include distributors (primary and secondary) direct channels and indirect channels, retailers and wholesalers
- Currently there are no backward integrations as the concentrates of all their products are imported.
- All payments are done through the bank. Once a deposit is done, Coca-Cola get a notification and customers are allowed to collect the products.
- Working on a sales force automation software application that collects data on all Coca-Cola outlets in Tanzania. This will allow indirect channels to indicate when they are low on products, and Coca-Cola will instruct the area agent to deliver immediately.
- A sales force platform will allow for digital payments from indirect channels, mostly MSMEs, and will cascade down to customers once it is integrated with mobile money operators.
- On access to finance for MSMEs, the company explained that they have not had a good experience with credit, but rather assist MSMEs through their agents to access overdraft facilities from the banks so that the risk remains with the bank.

4.5 UGANDA

4.5.1 Observations from MSMEs in Uganda

4.5.1.1 MSME Classification

According to the Uganda Bureau of Statistics, the definition of MSMEs includes all types of enterprises irrespective of their legal form (such as family enterprises, sole proprietorships or cooperatives) or whether they are formal or informal enterprises to ensure inclusiveness, as shown in table 7 below.

Size	Employees	Total Assets
Micro	≤ 5	≤ UGX10million (US$2,500)
Small	5-49	UGX10 m - UGX100m (US$25,000)
Medium	50-100	UGX100m - UGX360m (US$92,000).

Table 7: MSME Classification: Uganda

4.5.1.2 The MSME Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location, and the reason for starting the business.

4.5.1.3 Demographic Profile

Analysis of respondents across gender shows a dominance of male (52 percent). Out of all the male respondents, 85 percent considered themselves to be born entrepreneurs, while the remaining 15 percent indicated that they started their businesses of desperation. In contrast, 75 percent of the female respondents considered themselves to have been born entrepreneurs, while 17 percent got into business because they were desperate.

Out of the total number of respondents, 56 percent of the respondents were aged under 34, i.e. considered as youth. This is consistent with the overall country demographics, which show that 75 percent of Uganda's population is below the age of 30.

4.5.1.4 Trade and E-commerce Facilitation

The study revealed that 72 percent of the respondents had a transacting account. It was noted that, respondents who had businesses that were older than three (3) years had a higher chance of owning a transaction account, standing at 77 percent in comparison to respondents with businesses that had been in existence for less than a year, which preferred to transact with cash.

4.5.1.5 Market Penetration and Access

Almost 80 percent of the respondents' trade within their municipality of operations, and 12 percent went further into the province, while four (4) percent traded countrywide.

The study also sought to understand how social media is viewed as a business tool. On the issue of the importance of social media, 88 percent of the MSMEs considered social media to be essential for business, While 60 percent of the MSMEs considered the use of mobile payments in business to be expensive.

Regarding the impact of digital payments on turnover, 88 percent of the MSMEs believed digital payments systems had the potential of improving their annual turnover. In the same vein, 72 percent of MSMEs were convinced that regional payment systems for cross-border trading would positively impact their business.

4.5.2 Payment Infrastructure Landscape

The National Payment System (NPS) Department in Bank of Uganda oversees the national payments, with the objective of ensuring overall effectiveness and integrity of the payment systems in the country. The payment infrastructure includes all the payment, clearing and settlement systems operating in Uganda, including those headquartered elsewhere, but whose payment either originates or terminates in Uganda. Due to the importance of the payment system to the economy, appropriate regulation is essential to ensure safety, and efficiency of the NPS. Effective regulation starts with a sound legal and regulatory framework.

Remittances over mobile money platforms transcend the MNO's primary jurisdictions, with international remittances now possible, which have been enabled by bilateral cross-border partnerships and cooperation (BoU, 2019).

Box 5: MSMEs and Cross Border Engagements in their own words - Uganda

- Women complained about harassment at the border.
- Time taken to complete customs processes is too long.
- Informal traders use informal trading routes to cross the borders because of what they call inefficiencies of customs officials.
- Cross-border traders are also under-declaring their imports or exports in order to recover on transport costs, and to make sure that their products are competitive.
- They do not understand why some goods are said to be import duty free, but they still pay a lot of taxes on them.
- Lack of Incentives to use digital platforms
- "There's an issue of sexual harassment and other forms of harassment of women who participate in cross border trade. It would be necessary to consider a security element in this regard."
- When it comes to training of MSMEs, there is need to incorporate visuals in training. Ugandans prefer to see how things work and not only hearing.

Box 6: Corporate Engagements in their own words – Century Bottling Company Uganda

- Stakeholders in forward integration include distributors (primary and secondary) direct channels and indirect channels, retailers and wholesalers.
- No backward integration at the moment as the bulk of all their products are imported.
- All payments are done through the bank. Once a deposit is done, Coca-Cola gets a notification, and customers are allowed to collect the products.
- Most retailers use personal accounts on mobile money, and the limits will not allow them to pay Century Bottling Company. There is need for the promotion of business to business transactions by mobile money operators, to ensure that retailers stop using personal accounts
- Century Bottling Company is already testing an innovative product called coke 'click' mainly aimed for MSMEs. It was brought up as a way of sensitising the dealers to accept mobile money payments. With 'click', customers can order directly from century, and delivery will be done by a dealer or agent.
- Payments to middlemen in their dairy products and millet drink division are done through the bank. The middlemen pay cash to MSME suppliers, to enable them get supplies.
- Imports for mangos from Kenya and Swaziland are paid via banks, while they have tried to buy mangos from local suppliers, through the Buy Uganda build Uganda initiative, the quality of the mangos is however not good enough.

4.6 RWANDA

4.6.1 Observations from MSMEs in Rwanda

4.6.1.1 MSME Classification

Rwanda's Ministry of Trade and Industry classifies MSMEs into three categories[16], i.e. microenterprises, small enterprises and medium enterprises as summarized in table 8 below.

Size	Employees	Capital Investment	Turnover
Micro enterprise	3	RWF 500,000 (approximately US$525)	RWF 300,000 (approximately US$315)
Small enterprise	≤ 30	RWF 15m (approximately US$15,000)	RWF 12m (approximately US$12,500)
Medium enterprise	30 - ≤ 100	RWF 75m (approximately US$78,500)	RWF 50m (approximately US$52,000)

Table 8: MSME Classification: Rwanda

4.6.1.2 The MSME Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business.

4.6.1.3 Demographic Profile

A majority of the respondents were male (56 percent), while 44 percent were female. Similarly, with regard to age, 31 percent of respondents were classified as youth, i.e. under the age of 34, with a significantly higher proportion of the respondents being adults (69 percent).

In respect to the reasons for starting a business, a higher proportion of male respondents (85 percent) considered themselves to be born entrepreneurs, as compared to 67 percent of female respondents. None of the women who responded to the questionnaire were in cross- border trade. In comparison, only five (5) percent of the male entrepreneurs were cross- border traders.

4.6.1.4 Trade Facilitation and E-commerce

It was established that: 40 percent of the respondents started their business using money from their own savings; six (6) percent got assistance from family and friends; 17 percent from informal credit; while four (4) percent used both internal and external funds, inclusive of informal credit sources. Regarding transacting accounts, 94 percent of the respondents had accounts, and this were fairly consistent across genders.

In terms of the mobile technology, 42 percent of the respondents used smartphones, and 58 percent utilized basic feature phones. This indicates that market information can easily be shared with MSMEs using applications.

4.6.1.5 Market Penetration and Access

In analyzing the markets for the MSMEs, 25 percent of the respondents indicated that they were export oriented, 28 percent trade within their municipality of operations, 31 percent went further into the province, and 16 percent trade countrywide.

Some MSMEs (28 percent) indicated that they used unregistered middlemen to access markets and while 61 percent do it single handedly. Gender analysis of the use of unregistered middlemen showed that 38 percent and 20 percent of women and men respectively used middlemen. Studies have revealed that most women use middlemen in an attempt to avoid mistreatment at most customs offices in cross-border trade. On the other

[16] For an MSME to be classified in any one of the three classes above two of the three conditions should be met. It is also noted than the Rwandese Tax Authority has a different classification for tax purposes.

hand, 14 percent of the respondents indicated that they use digital platforms to engage in cross-border trade.

The study equally sought to understand whether MSMEs would use mobile payment solutions in cross-border trade when given the opportunity, with 86 percent indicating they would most likely use the mobile payment solutions.

With respect to the cost of mobile payments, six (6) percent of the respondents considered mobile payments in business to be expensive while the majority (94) percent, thought that they were affordable.

4.6.2 Payment Infrastructure Landscape

Since 2018, Rwanda has been upgrading its payment infrastructure in all aspects of the economy. The upgrades imply that all government agents, departments and ministries can make payments to the Central Bank online. The Government of Rwanda acknowledges that developing an interoperable retail payment system requires the set-up of an interoperable scheme and switch, which has been referred to as the Rwanda National Digital Payment System (R-NDPS). The R-NDPS refers to the overall scheme, which comprises not only the technology / switch, but also the broader set of rules, processes, and standards for implementing the switch.

4.6.3 Policy and Regulatory Aspects

The Government of Rwanda has enacted laws and promulgated policies that are aimed at promoting DFSs over cash transactions. Mobile money has played a key role in Rwanda's efforts to reduce financial exclusion.

Box 7: MSMEs and Cross Border Engagements in their own words - Rwanda

- Reducing the cost of trade to improve competitiveness of Rwandan goods in neighbouring markets
- MSMEs indicated that there was need to strengthen domestic linkages between producers, traders, and markets in the informal and formal sector, before they can look at regional trade.
- Political issues sometimes hamper trade
- Need for government support in trade
- Time taken at borders is too long, and there is need for one stop border stations.
- Need for digital training for MSMEs
- Training for border officials on information sharing

Box 8: Corporate Engagements in their own words – Skol Brewery Rwanda

- Exports into Democratic Republic of Congo (DRC) and Burundi, with distributor from DRC using cash in foreign currency for payments.
- 80 percent of all payments to Skol are done through the bank, while 20 percent are done through cheques.
- With regard to mobile money, not comfortable with a telecommunications company handling their revenue collection, and they are still happy with the bank. However, a team is working on mobile money possibilities, and will present their recommendation.
- They buy rice from rice cooperatives in Rwanda, and these are paid through bank transfers and cheques.
- Rwanda has very small-scale farmers, who cannot meet the demand from Skol, in the few occasions where supplies have been done, payments are in the form of cheques to the cooperative
- While importation is done by agents, the feedback from the agents is that it is easier and faster to import rice from Asia, than to import from African countries. This is due to the lack of standardisation and a lot of non-tariff barriers (NTBs) that exist in international trade in Africa.

4.7 ZAMBIA

4.7.1 Observations from MSMEs in Zambia

4.7.1.1 MSME Classification

The Government of the Republic of Zambia (GRZ) (2010) in the MSME Development Policy provides a detailed classification[17] of MSMEs based on turnover and number of employees as indicated in Table 9 below.

Size	Number of Employees	Investment (K)	Investment (Us$)	Turnover	Turnover (Us$)
Micro	Up to 10	Up to K80,000	Up to Us$4,300	Up to K150,000	$8,100
Small	11-50	K80,000-K200,000	$4,300- $10,800	K151,000-K300,000	$8,000 – $16,200
Medium	51-100	K201,000-K500,000	$10,890- $27,000	K301,000 – K800,000	$16,200 - $43,300
US$1= approximately K18.5					

Table 9: MSME Classification: Zambia

4.7.1.2 The MSME Profile

The profile of the MSME owners was analyzed on the basis of age, level of education, gender, location and the reason for starting the business.

4.7.1.3 Demographic Profile

All the respondents were adults, with no youth under the age of 34. A half of the respondents were between 45 and 54 years, 25 percent were aged 55 - 64 years, and about 25 percent were over 65 years. Non-participation of the youth (age between 18 to 34 years) is worrying as none of the respondents in the study fell in this category. However, this is more a reflection of the association from which the respondents were drawn, rather than the overall country presentation.

With regard to the intention/motivation to start a business, 62 percent of the respondents had entrepreneurial intention when they started while 25 percent where desperate. Only about 13 percent of the respondents indicated that they were registered for taxation purposes. In terms of years in operations, the study revealed that 88 percent of the businesses had been in existence for over five (5) years, and 12 percent for less than a year.

4.7.1.4 Trade Facilitation and E-commerce

The study demonstrates the scarcity of external funding sources i.e. formal credit or equity, for the MSMEs, with most of them getting their funding from own savings (44 percent) or family and friends (56 percent). Similarly, in order to be able to participate in trade, a transaction account is a useful starting point. The majority of respondents, 87 percent, indicated that they had transacting accounts, reflective of a high level of financial access amongst the MSMEs. Interestingly, although the respondents indicated that they had bank accounts, cash was the preferred method of payment with, 53 percent of the respondents preferring cash, as opposed to 47 percent respondents who preferred mobile money.

[17] Report Of The Committee On National Economy, Trade And Labour Matters For The Second Session Of The Twelfth National Assembly Appointed On Wednesday 20th September, 2017, available from http://www.parliament.gov.zm/sites/default/files/documents/committee_reports/MAIN percent20REPORT-2018.pdf

4.7.1.5 Market Access and Penetration

None of the respondents were export oriented, with 75 percent indicating that they trade within their municipality of operations and 25 percent traded countrywide. The study shows that 88 percent of the respondents were members of trade associations, while 12 percent were stand alone and not affiliated. About 63 percent of the respondents indicated that their products could be ordered online.

The study equally sought to understand whether MSMEs would use mobile payment solutions in cross-border trade. They all indicated that they would most likely use mobile payment solution in conducting cross-border trade because they think it is affordable. MSMEs indicated that they needed training on digital platforms, with 13 percent indicating that they needed a basic training course to enable them appreciate the smartphone and digital platforms. On the other hand, 12 percent indicated that they were above basic, in terms of training needs but below advanced, while 75 percent respondents noted that they would prefer an advanced training course, in order to improve their businesses using digital platforms.

4.7.2 Payment Infrastructure Landscape

The Bank of Zambia has identified a number of payment systems which it has categorized as Systemically Important Payment Systems (SIPS) and Non-systemically important payment systems. The SIPS are payment systems whose failure has the potential to trigger systemic risk, and in turn impact on the wider economy of the country.

Bank of Zambia developed the Payment Systems Oversight framework to guide its oversight activities. The bank adopted the Principles for Financial Market Infrastructures (PFMIs), which were issued by the Bank for International Settlements (BIS) and International Organization of Securities Commission (IOSCO) as standard risk management frameworks for systemically important payment systems.

BOX 9: MSMEs and Cross Border Engagements in their own words - Zambia

- Most women indicated that they engaged in informal small-scale cross-border trade to supplement their incomes. Some traders indicated that cross-border trade was the only survival option since no alternative source of income was available at the Nakonde border.
- MSMEs at the COMESA market indicated that for any transaction that was done using mobile money, the customer has to include the cash out fee which the supplier will incur. (MSMEs still see mobile money as a channel not as a wallet from where they can transact)
- On value added services on mobile money, MSMEs were interested mostly in daily exchange rates, as well as credit worthiness statements – credit score and amount of loan they can qualify for.

4.8 EGYPT

4.8.1 MSME Classification

There are different classifications of MSMEs from organizations such as, the Federation of Egyptian Industries (FEI), the Credit Guarantee Corporation (CGC), and Small Enterprise Centre at the National Council for Women (SEC-NCW) and the Ministry of Trade and Industry (MTI). The MTI and the Central Bank of Egypt (CBE)[18] have been working on a unified classification of MSMEs based on turnover, investment and number of employees as indicated in Table 10 below.

Size	Number of Employees	Annual revenues (EGP million)	Investment (EGP million)
Existing Companies			Newly established companies
Micro	Up to 10	Up to 1m (up to US$62,487)	Less than 0.05
Small	Less than 200	1m to 50 (US$62k-US$3,1m)	Industrial companies 0.05 to 5 Non-industrial companies 0.05 to 3
Medium	Less than 200	50 – 200 (US$3,1m- US$12,5m)	Industrial companies 5 to15 Non-industrial companies 3 to 5

Table 10: MSME Classification: Egypt

4.8.2 The MSME Study

The MSME training was done with the help of interpreters. The survey was also conducted in the local language. Due to circumstances beyond the team's control, it was impossible to get the translated versions of the questionnaires that were distributed, hence the absence of MSME country data.

4.8.3 Payment Infrastructure

The CBE is the overseer of the payment system, with the Payment Systems Department within the bank playing three pivotal roles in the payment space, which are:

- Operating a number of payment systems;
- Overseeing payment systems and services in Egypt (through standards, regulations and licensing payment systems and services); and
- Acting as a catalyst for change in the payments market.

The emphasis is on ensuring the trust of the users, consumer protection, regulating the market, and ensuring competitive market conditions. The bank is of the view that digital payments through EFT, enhance the flow of cash in the economy, hence increasing the GDP.

4.8.4 Market Products

The CBE team advised[19] that unlike in majority of sub-Saharan Africa, mobile money in Egypt is bank-led, i.e. a bank is the service provider. The role of the MNO is more peripheral, limited to providing communications infrastructure and/or agency services. Mobile payment service was launched in April 2013. According to CBE, Egypt has 23 Mobile Wallets Service Providers. They all offer money transfers, pay using QR Code in shops, purchase online and pay merchants. Table 11 below gives a summary of two of the mobile wallet products in Egypt.

[18] https://www.oecd-ilibrary.org/sites/9789264304161-11-en/index.html?itemId=/content/component/9789264304161-11-en

[19] Meeting with CBE officials

QNB Al-Ahli E-wallet	CIB E-Wallet
Allows customers to transfer money and pay bills directly from mobile phones in a convenient, fast and secure way.	Mainly used to support online store purchases. All 23 wallets have the same features and were all launched in partnership with banks.

Table 11: Market products

4.8.5 Policy and Regulatory Issues

The CBE has issued several regulations in addition to the less cash law that was issues under the umbrella of the national payment council to endorse Fintechs and digital financial services. These included: mobile payment regulations; simplified KYC; and due diligence procedures for customers of mobile payments in cooperation with the Egyptian AML unit.

The Bank is at advanced stages of setting up and funding innovation hubs as well as issuing sandboxing licenses, with a bias towards electronic payments. The regulatory sandbox will work as a live testing ground for Fintech's, which are developing new business models that are currently hindered by stringent authorization requirements and regulatory uncertainty. The power to license, supervise and regulate financial service providers in Egypt, lies across different departments and ministries.

4.8.6 Interoperability

The central bank revealed that it is ready for digital transformation and regulations are already being promulgated into the DFSs space. The new regulations stipulated the activation of interoperability among the different payment schemes. This therefore implies that it is now possible for a customer of a particular mobile payment scheme, to make a payment to another customer associated with any other mobile payment scheme. Banks that had been licensed by CBE to provide mobile payment services were given a six- month grace period to avail the interoperability services to their customers.

BOX 11: MSMEs and Cross Border Engagements in their own words - Egypt

- Informal traders and MSMEs indicated that legal and regulatory systems to support the development of e-commerce platforms were absent.
- Computer illiteracy has impacted digital inclusion initiatives
- Limited use of internet banking and web portals by SMEs
- Internet security was not guaranteed. However, the Egyptian President ratified the anti-cybercrime law in October, 2018

4.9 ETHIOPIA

4.9.1 Observations from MSMEs in Ethiopia

4.9.1.1 MSME Classification

The Ethiopian Ministry of Trade and Industry (MoTI) defines MSMEs as shown in table 12 below.

Size	Investment (B)	Comments
Micro	not exceeding Birr 20,000	Excluding those enterprises with high technical consultancy, and any other high-tech establishment.
Small	Birr 20,000 up to Birr 500,000	Excluding these enterprises with high technical consultancy, and any other high-tech establishment.
Medium	Birr 500,000 up to Birr 1 million	Including those enterprises that have high technical consultancy, and excluding other high-tech establishments

Table 12: MSME classification

For the purposes of this study, where there is a conflict with the CBC classification, the research will use the CBC classification which is primarily based on the number of employees.

4.9.1.2 The MSME Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business.

4.9.1.3 Demographic Profile

In Ethiopia, 41 percent of the respondents were female, while 65 percent were youth, i.e. aged below 34 years. At least 82 percent of the respondents, were educated up to secondary level, with almost 60 percent having some form of tertiary qualification. About 64 percent of the youth started their businesses because they had an entrepreneurial mind, and 18 percent were desperate.

A good number of Ethiopian MSMEs are not formalized, and their businesses showed some elements of willingness to formalize and grow from sole traders to limited liability companies. Assuming tax registration can be used as a measure of formalization, 86 percent of the female businesses were registered for tax purposes, while14 percent preferred not to disclose.

4.9.1.4 Trade and E-commerce Facilitation

About 29 percent of entrepreneurs started their business using money from both internal and external financing, almost 17 percent were assisted by friends and family, 17 percent used their savings, approximately six (6) percent used informal credit channels, while about five (5) percent got grants. The study further revealed that 94 percent of the MSMEs had transacting accounts. This was also consistent across gender, and maturity of the business.

Respondents indicated that the bank was the preferred method of payment with 62 percent of the MSMEs using it, while cash and mobile money were split evenly at 19 percent each.

4.9.1.5 Market Penetration and Access

In analyzing their markets, 94 percent of the respondents indicated that they were export oriented, while six (6) percent traded countrywide. Some respondents (35 percent) indicated that they used unregistered middlemen to access markets. Gender analysis on the use of unregistered middlemen indicated that 43 percent of the women and 30 percent of the men used them.

At the same time, 65 percent of the respondents reported that their products could be ordered online. In terms of international trade, 41 percent indicated that they used digital platforms to engage in cross-border trade. The study equally sought to understand whether respondents would use mobile payment solutions in cross-border trade, with 59 percent responding in the affirmative.

On the impact of digital payments on turnover, 82 percent of the respondents believed that digital payments systems had the potential to improve their annual turnover.

4.9.2 Policy and Regulatory

The power to license, supervise, and regulate financial service providers in Ethiopia falls across different departments and ministries. It is important to note that Ethiopia has proclamations, whereas the majority of the countries in the region have Acts. These are summarized in the appendices.

4.9.3 Interoperability

The Ministry of Innovation & Technology (MINT) is formulating various regulatory frameworks such as enterprise architecture, interoperability standards and Public Key Infrastructure (PKI), as part of the ease of doing business initiatives.

Box 12: MSMEs and Cross Border Engagements in their own words - Ethiopia

- Lack of markets
- Digital platforms are not accessible to everyone
- Unsupportive government regulations
- Ethiopian MSMEs indicated that majority of them suffer from lack of capital.
- The few that have access to credit are over-indebted because the system allows them to borrow from several institutions since the system is manual.
- Most of the informal traders perform their trade in open air, and along the roadsides.
- Lack of marketing information is hindering trade
- Inefficient marketing system
- Limit to the amount cross-borders can import or export in or out of Ethiopia

4.10 MAURITIUS

4.10.1 Observations from MSMEs in Mauritius

4.10.1.1 MSME Classification

According to the Small and Medium Enterprises bill of 2017, MSMEs in Mauritius are classified as per table 13 below:

Size	Measurement	Measurement (Us$)
Microenterprise	≤ Rs.2 million	≤ Us$48,600
Small enterprise	Rs.2 million - Rs10 million	Us$48,600 -Us$243,300
Medium enterprise	Rs. 10.1 million – Rs 50 million	Us$244,000 – Us$1.2m

Table 13: MSME Classification Mauritius

For the purposes of this study, where there is a conflict with the CBC classification, the research will use the CBC classification, which is based on the number of employees.

4.10.1.2 The MSME Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business.

4.10.1.3 Demographic Profile

About 70 percent of the respondents were female, who were primarily urban based. Only 20 percent of respondents where under the age of 34, i.e. youth. Similarly, with respect to the level of education, 85 percent of the respondents had tertiary education.

From the gender perspective, the reason for starting a business shows that all men had an entrepreneurial mind. In comparison, 86 percent had an entrepreneurial mind while 14 percent acted out of desperation. In terms of the size of the enterprise, 79 percent of the women ran micro-level enterprises, and 14 percent were small enterprises.

4.10.1.4 Trade Facilitation and Ecommerce

The majority of respondents initiated their businesses with their own savings (41 percent) and support from family and friends (27 percent). Only about five (5) percent of the respondents accessed formal finance, which is reflective of the challenges which MSMEs face when trying to access finance from formal financial institutions. None of the youths and women who participated in the survey got financial assistance from formal financial institutions.

About 80 percent of the respondents had transaction accounts. In terms of gender, 67 percent of male respondents indicated that they had a transaction accounts compared to 86 percent of their female counterparts, which implies that access to financial services is not a significant constraint for women in Mauritius.

4.10.1.5 Market Access and Penetration

An analysis of their markets showed that 45 percent of the respondents were export oriented. The study also shows that 80 percent of the respondents were members of trade associations. It was also observed that while the majority of respondents indicated that they belonged to an association, at least 45 percent of the respondents were skeptical about the services they got in return for their affiliation. As a result, some of the respondents (20 percent) still made use of unregistered middlemen to access markets.

Also, 55 percent of the respondents indicated that their products could be ordered online. With respect to international trade, 45 percent of the respondents indicated that they used digital platforms to engage in cross-border trade.

The study equally sought to understand whether MSMEs would use mobile payment solutions in cross-border trade. Approximately 65 percent of the respondents indicated that they would most likely use mobile payment solutions in conducting cross-border trade. Out of the respondents that were most likely to use mobile payments, 15 percent of them indicated that they would use mobile payments because they thought it was convenient to do so. On the use of social media as a business tool, 95 percent of respondents considered social media as an important tool for business success. The responses on the affordability of mobile payment platforms were fairly mixed.

4.10.2 Policy and Regulatory

The power to license, supervise and regulate financial service providers in Mauritius lies across different departments and ministries. These are summarized in the country appendices

4.10.3 Interoperability

Management of the Bank of Mauritius indicated that, all retail payments are driven by private initiatives which are only inter-operable through international intermediaries. Because of this, the cost structures are heavy and become expensive for the ordinary customer who is at the bottom of the pyramid. It is critical to note the fact that the country's infrastructure is not mobile payment friendly. This means that for a customer to be able to use a certain PoS machine, for example, they must have an account with the particular bank that owns the PoS device.

Box 13: MSMEs and Cross Border Engagements in their own words - Mauritius

- Mauritius MSMEs indicated that they are willing to trade with mainland Africa, although there have been trust issues regarding these types of transactions, hence their move to trade with Asia and Europe.
- One MSME indicated that they lost a substantial amount of money after transacting with a potential supplier in mainland Africa, where no delivery was made after payment.
- MSMEs proposed the use of escrow/trust accounts on COMESA e-commerce platforms that ensure customers receive their product before payment is released to the supplier.
- Public ledger platform for e-commerce management with consumer ratings.
- More trade options can be opened since COMESA goods can enter Mauritius duty free.

4.11 MALAWI

4.11.1 Observations from MSMEs in Malawi4.11.1.1 MSME Classification

Table 14 below shows the classification of MSME according to the Ministry of Industry, Trade and Tourism & Micro Businesses.

Size	Number of Employees	Turnover (MWK)	Turnover (Us$)
Micro	1-4	K120,000	Us$160
Small	5-20	K120,001- K4 million	Us$160-Us$5,300
Medium	21-100	K4 million – K10 million	Us$5,300- Us$13,300

Table 14: MSME Classification: Malawi

4.11.1.2 The MSME Profile

The profile of the MSME owners was analyzed on the basis on age, level of education, gender, location and the reason for starting the business.

4.11.1.3 Demographic Profile

With regard to demographic profile, 90 percent of the respondents were female and 69 percent youth, i.e. under the age of 34. With regard to level of education, 94 percent of respondents had at least secondary level of education.

Most respondents, 88 percent indicated that their businesses were sole proprietorships, with the dominant sectors being cross border traders (35 percent). However, the level of businesses that had not been formalized was very high, with over 70 percent of respondents indicating that they were not registered for tax purposes. With regard to the reason for going into business, at least 71 percent of the respondents indicated that they were pursuing an entrepreneurial opportunity while, some of the female respondents cited being divorced and the need to cater for their families' needs.

4.11.1.4 Trade Facilitation and Ecommerce

With regard to sources of funding for businesses, about 41 percent of the respondents started their business using money from friends and family and 22 percent from savings. Less than 10 percent of the respondents were able to access external financing. Approximately 67 percent of the respondents had a transacting account, which was consistent across the gender types, while cash was the preferred method of payment with 42 percent of the respondents indicating that they relied on cash payments.

4.11.1.5 Market Access and Penetration

The market analysis revealed that, 10 percent of the respondents were export oriented. At the same time, 69 percent of the respondents were members of a trade association, while 56 percent of the respondents indicated that their products were available and could be ordered online. Regarding international trade, a majority of the respondents (58 percent) did not use digital platforms to engage in cross-border trade. While all respondents indicated that they currently procured locally, at least 62 percent would be willing to both place orders and pay for them, or sell and receive payments digitally (60 percent).

Mobile payments were the preferred payment solution for cross-border payments (60 percent), partly due to the perceived affordability (15 percent). The study also sought to understand how social media was viewed as a business tool. In line with this, 87 percent of the MSMEs considered social media to be important for business. The study further sought to understand how MSMEs view the cost of mobile payments, 38 percent of the MSMEs reported that they considered mobile payments in business to be expensive, while 56 percent thought they were affordable.

4.11.2 Policy and Regulatory Issues

In as much as markets play a role, the fact that growth of the sector is dependent upon the regulatory system cannot be over emphasized. The Reserve Bank of Malawi (RBM) has played an important role in creating a conducive regulatory environment that has fostered private sector led innovation and growth. RBM permits both banks and nonbank financial institutions to offer DFS. There are critical laws that were passed through parliament in 2016, including Payment Systems Act, E-Transactions Act and the Communications Act, which have provided further guidance on the development of the DFS market. Following the Payment Systems Act, RBM issued a directive in September 2017, mandating interoperability of DFS through the National Switch.

The power to license, supervise and regulate financial service providers in Malawi cuts across different departments and ministries. These are summarized in the appendix of the Malawi country report.

4.11.3 Interoperability

Interoperability is a pre-requisite for all players in the payment systems, because in the absence of interoperability, the cost of transactions for individuals, informal traders, MSMEs is high, which results in traders carrying cash. This explains the high propensity for cash at the border towns. The RBM is currently advocating for a cashless economy, because it provides data thus making it easy for planning. Secondly, it brings back all the money circulating within the informal sector to the formal sector, thus widening the tax base.

Box 14: MSMEs and Cross Border Engagements in their own words - Malawi.

- We asked cross-border traders whether they get information about the duties and taxes that they are supposed to pay and the majority responded negatively saying that they are not even sure what they are supposed to pay. They unanimously agreed that the same order with the same quantity, ordered by two different people at varying times, may incur different duties. Similarly, the same person may incur different duties on different days.
- With regard to trade facilitation and ecommerce, majority believed that digital skills will improve the manner in which they do business, in terms of interacting with customers, suppliers and other stakeholders. They are convinced that digital finance has the potential to improve their revenues from both local and regional sales.
- Majority of the MSMSEs requested some form of digital skills training. They have a feeling that what they already know is inadequate for them to be sustainable in the digital space.
- Critical to their business is commodity price information, which they do not get making it difficult to make market decisions.
- The time taken to cross the border was an issue with cross-border traders. The majority were saying that they will spend more than two hours to cross the border. Their biggest hold up being customs officials from both Zambia and Malawi.

Box 15: Corporate Engagements in their own words – Bayer Malawi

- Stakeholders in forward integrations include agro-dealers, retailers and wholesalers.
- Backward integrations include out growers (rarely MSMEs) and corporative farmers.
- All payments done by Bayer are online. However, they are moving over to cashless payments even for contractors. It is mandatory that they have access to a bank account (they are not yet paying into mobile money wallets).
- Payments from agro-dealers, retailers and wholesalers are also done at the bank implying that Bayer does not receive cash.
- Payments from customers to the distribution channel are still dominated by cash. Bayer hopes their push for cashless will cascade down to the final customers.
- They are working on having PoS and mobile money systems in all their payments offices.

4.12 FIELD STUDY OBSERVATIONS AND LEARNING POINTS

A total of 205 MSMEs representatives responded to the questionnaires, 68 percent of whom were women. MSME population within the COMESA region is fairly young with majority half (50 percent) falling in the 25-34 years age group. In the same vein, 74 percent of the MSMEs are aged under 44. This age group is generally receptive to new innovative technology. Seventy-nine (79) percent of the respondents indicated that they owned smart phones and are comfortable with the technology. Only 20 percent of the MSMEs get their information from the internet. However, despite this, if the total market information received on the phone is considered, the proportion increases to 31 percent.

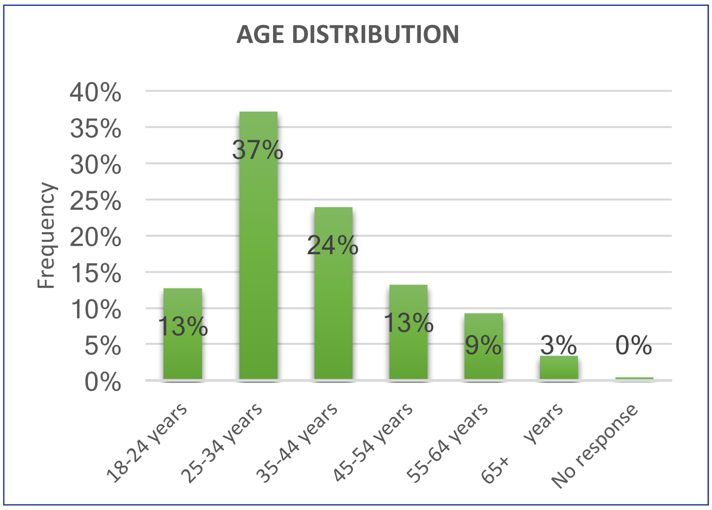

Figure 4 : Age Distribution: Consolidated

This is further solidified by the fact that 86 percent of the MSMEs indicated they would consider using a platform that sends market information through their phones, which presents an opportunity for e-commerce applications.

Only about 28 percent of the MSMEs indicated that they used digital payments in transacting cross-border trade, while 61 percent indicated that they did not, with a strong possibility of them using cash, although 80 percent of them indicated that they had an account. Interestingly, 81 percent of the MSMEs were uncomfortable using cash, with their preferred mode of payment being mobile money.

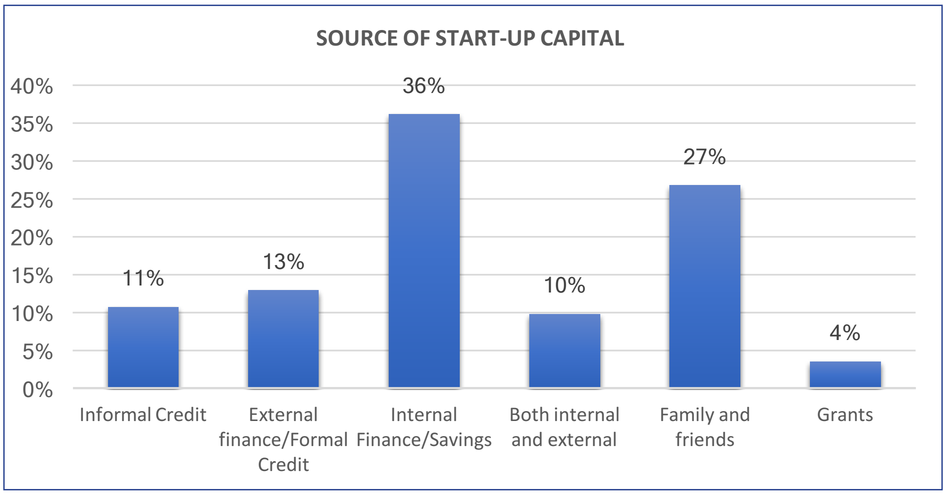

Figure 5: Sources of Capital: Consolidated

The research revealed that access to formal finance was a challenge within the COMESA region. Only 13 percent of the MSMEs had access to formal finance, 36 percent used their own savings, while 27 percent got assistance from friends and relatives.

A majority of the MSME businesses were sole traders employing less than nine (9) employees. Just about 16 percent of the respondents considered themselves to be in cross- border business, while most of them were in agriculture (38 percent), and retail and wholesale (30 percent). About 30 percent started their businesses with less than US$50, and 29 percent started them with over US$250. The recorded intra-regional trade remains relatively low.

The payment landscape within the COMESA region has undergone significant changes over the past decade, especially with regard to the proliferation of non-financial institutions such as MNOs, PSOs or PSPs, and retailers in the payment industry.

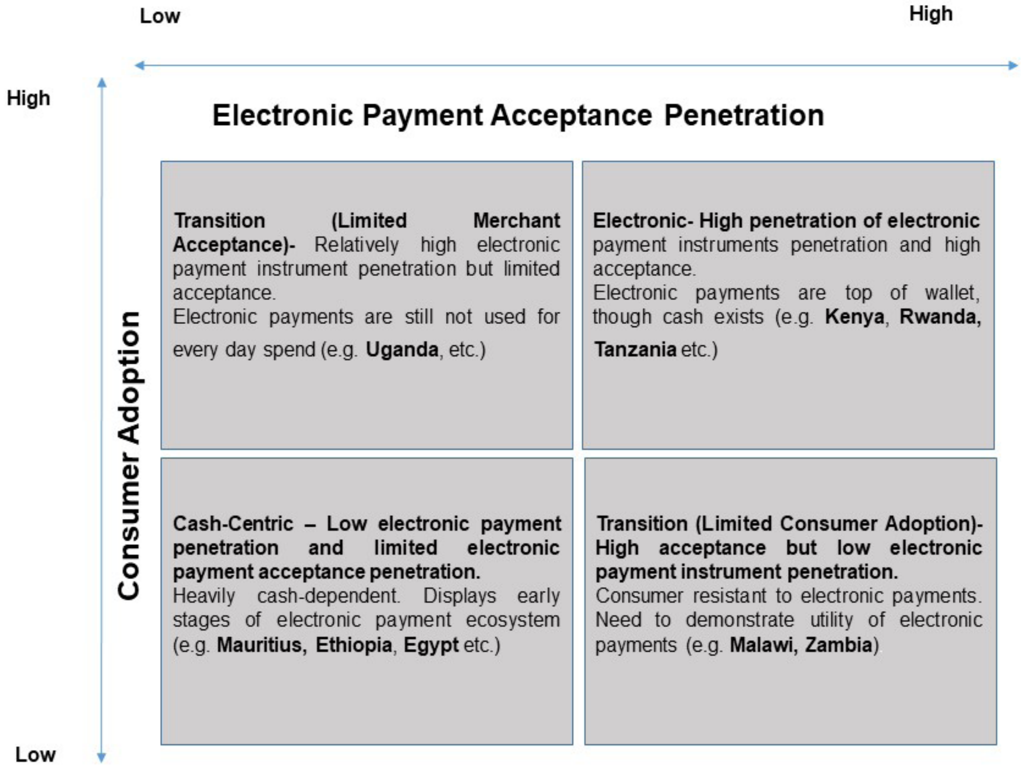

Figure 6: Electronic Payment Acceptance Penetration in COMESA (Author's analysis)

Other important trends in the payment landscape include, the convergence of e-commerce and mobile payments through the uptake of smart phones (79 percent) and mobile applications; the adoption of e-payment (B2G and P2G) by government organizations to capture revenue (e.g. taxes and utilities), and disburse payments (e.g. pension and social benefits); and the growing cross-border, low-value e-payment market, such as remittances, international bill payment, e-commerce, and trade services.

Interoperable infrastructure remains a key challenge in the region. This necessitates the adoption of the ISO 20022 international message standard, to facilitate the transmission of payment and business data, to meet the needs for data connectivity of the business sector. However, fostering payment services innovations to meet consumer needs, will improve cross-border payment and funds transfer services.

4.12.1 Observations of the COMESA Region Payment system

a) Payment system regulatory framework is in need of review: Current laws and regulations related to the retail payment were established in the early 2000s, and are not fully reflective of trends in innovative payment solutions. A few countries have initiated work on reviewing them, but these will need standardization, while being relevant and proportionate to the requirements of the specific jurisdictions.

b) Barriers to cross-border payments and international remittances: Limited and bank-led regional payments integration, as well as interoperability due to a lack of regional regulatory harmonization. The multi-currency regime restrains the operational and economic efficiency of payment systems, as well as affordability for the end consumer.

c) Cash-dominated economy: COMESA region remains highly cash centric, which presents a significant cost to MSMEs. The cost of cash for countries that are dominant users of cash can easily exceed one (1) percent of the GDP, which perpetuates a shadow economy. This will require a high-density digital payment acceptance infrastructure, as well as robust incentives for customers and merchants to shift to digital payment methods.

d) Gaps in network infrastructure: Currently, a number of gaps exist in the network infrastructure, including: unstable back-end and front-end infrastructure of providers; low penetration of smart phones which limit the usage of innovative channels; limited mobile network and electricity coverage especially in rural areas, which reduces the number of places where customers can utilize POS and ATMs; and frequent network failures and problems that arise during the use of e-payments, which reduces customer confidence in digital payment channels.

e) Profile of COMESA MSME: On average, the MSMEs that engaged in cross-border activities were primarily women aged between 25-34 years. They have limited formal education and rely on family and friends for financing their entrepreneurial ventures. These MSMEs are typically affiliated to trade associations. They are comfortable with mobile devices and are generally happy to transact with same. They are uncomfortable carrying cash, although they do so because of lack of viable options when they cross the borders. It was reported that some informal cross-border traders goes through three or more borders to reach their final trading destination.

5. MODEL LOW COST DIGITAL INTEGRATED COMMON PAYMENT SCHEME FOR MSMEs

5.1 Introduction

Findings from field mission confirm a business case, both in terms of value of the intra-regional transactions, and the possible value-added services that could be introduced to MSMEs by the regional digital integrated payment system. Different countries within the COMESA bloc participate in other regional payment systems such as SADC's SIRESS, COMESAs -REPSS and EAC. From a review of the publicly available information, the level of data available for the transactions, does not differentiate between segments, i.e. MSMEs compared to the large corporates.

While a digital payment system for MSMEs will and should have a definite cross-border component, most transactions (payments) for MSMEs are domestic. Consequently, this necessitates an enabling digital platform for MSME business transactions (including payments) that will support both domestic and cross-border trade for MSMEs.

In this section, a summary of some of the available options for the payment scheme, including possible advantages and disadvantages are given. Conclusions and recommendations are made including a high-level indication of possible next steps.

5.2 Models of Integration for Digital Payment Systems

There are four main types of digital payment models for cross-border payments, namely: correspondent banking model; closed loop model; interlinked model; and peer to peer model. Within this framework, there could also be decentralized or centralized models.

5.2.1 Correspondent banking models

Correspondent banking model refers to an arrangement under which one bank (correspondent) holds deposits owned by other banks (respondents) and provides payment and other services to these respondent banks (BIS, 2018). In international banking, balances held for a foreign respondent banks may be used to settle foreign exchange transactions. In practice, a series of correspondent banking relationships may be involved in a single payment transaction, resulting in increased complexity, cost and processing time of the transactions. Large transaction banks frequently offer correspondent banking services to smaller and/or domestically focused PSPs (BIS, 2018).

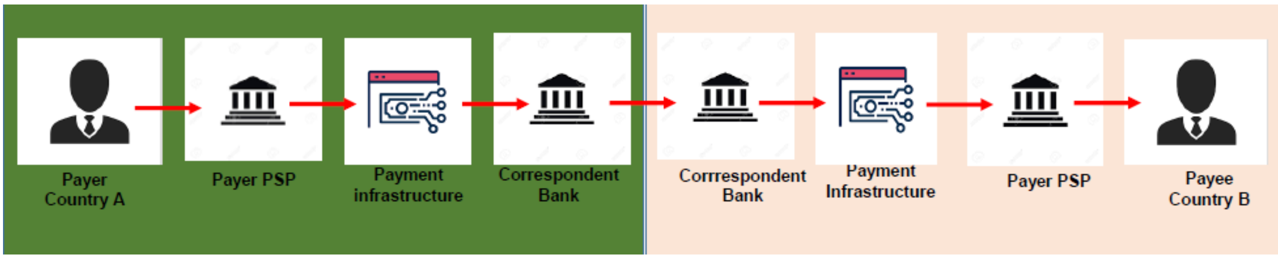

Figure 7: Correspondent Bank Model

5.2.2 Closed Loop Model

Closed loop systems depend on both the payer and payee opening an account in or otherwise using the same closed-loop system, and can therefore offer services to both and control the end-to-end payment. A closed loop payments system operates without intermediaries. The end parties have a direct relationship with the payments system. Bech & Hancock (2020) refer to this as an in-house or intragroup transfer system given the existence of a single centralized PSP that provides services to both the payer and payee. Examples include Western Union and MoneyGram for remittances, and more recently AliPay and WeChat Pay for making domestic payments in China. AliPay and WeChat Pay (Table 8) are increasingly partnering with overseas payment operators to allow Chinese travellers to use their mobile payments application while abroad (Bech & Hancock, 2020). The table below shows comparison between WeChat and Alipay digital platforms.

WeChat vs Alipay	
微信支付 WeChat Pay	Alipay
• Instant message payments. • WeChat is a whole ecosystem: a messenger, a social network, games • WeChat Mini Program for e-commerce • Largely fee-free, with fees on withdrawals over RMBY 10,000 (about $153) • Merchant fee at 0.6 percent, about 40 percent less than debit and credit cards • Strong security complete with encryption • Vast selection of possibilities for marketing • Deals with 13 currencies • Market penetration at 84.3 percent	• Initially purely for business to cater for both buyers and sellers in completing transactions faster • Only charges for withdrawals, in excess of RMBY 20,000, or approximately $2,900. • Merchant fee at 0.55 percent. • Internet escrow service i.e. keeps the money a buyer pays until the transaction is completed according to the agreement. • Deals with 27 currencies • Market penetration at 62.6 percent

Table 15: Comparison between WeChat and Alipay

Potential benefits of such a network include, increased efficiencies as well as faster and more transparent payments while maintaining risk management and compliance standards. However, according to a Survey conducted by BIS (BIS, 2018), the majority of respondents used proprietary messaging formats, with only a small proportion accommodating ISO message types, which permit greater interoperability.

A growth in the number of these networks, may result in market fragmentation, which is not a significant upside to the existing correspondent banking setup, in case users need to negotiate a series of closed-network corridors. Jurisdictional variations in terms of regulatory, supervisory and oversight requirements over closed-loop proprietary systems may also prove to be a significant draw back.

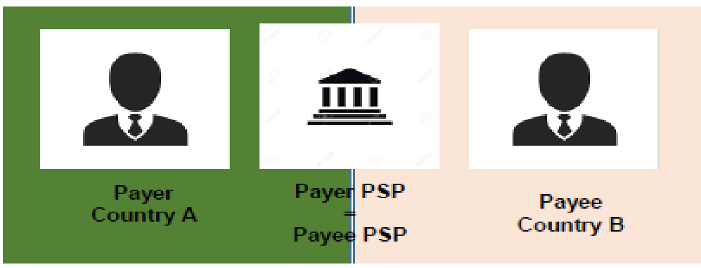

Figure 8: Closed Loop Model

5.2.3 Interlinking model

The Interlinking model links the domestic payment infrastructure. These types of schemes have struggled to meet expectations, and account for small amounts of cross border retail payments that have been made between the jurisdictions they link (BIS, 2018), as a result of cross-country variations in legal, technical and operational aspects.

Additionally, interlinked systems usually offer a narrower range of currencies and countries as compared to a network of correspondent banks. Consequently, individuals, small enterprises and their banks will almost certainly need to supplement their use of interlinked structures in order to reach a wider range of countries using different currencies in the growing global marketplace (BIS, 2018).

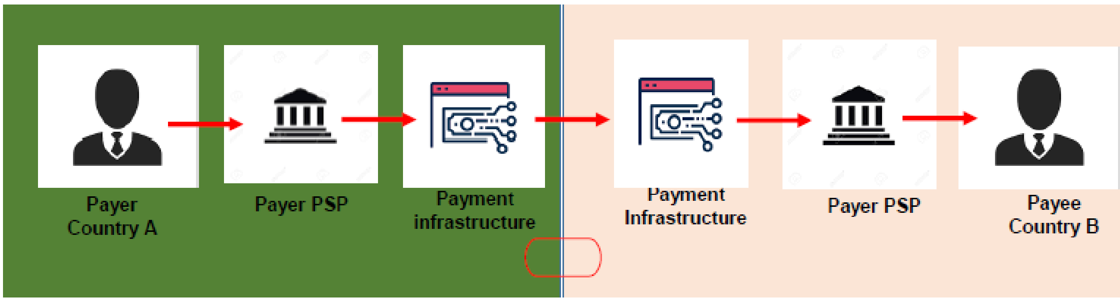

Figure 9: Interlinked Model

5.2.4 Open Loop Model

The open loop model refers to a system in which buyers and sellers can send funds to one another without having direct relationship with the same bank. Similarly, the banks can transact with each other without having a direct relationship. All trade stakeholders are in a way connected to each other through the payments system and the intermediary banks. An open loop payments system relies on intermediaries, usually banks, to connect to the end parties with whom they establish a business relationships. [20] An advantage of an open loop system lies in the fact that when a participant or intermediary joins the system, it translates into the customers automatically becoming members and they can immediately start transacting with other end users who are already on the platform. For example, if Airtel Zambia joins the platform and Equitel Kenya is already on the platform, this means that the MSMEs that are on the two platforms (Airtel and Equitel) can transact with each other immediately. In an open loop payments system, the network defines the operating rules to the participating banks, which must then ensure that their end parties comply with, thus creating a chain of liability[21].

5.2.5 Peer-to-peer model

The peer-to-peer model eliminates the financial intermediary PSP between the payer and the payee. Until recently, this model would have mainly involved paper-based transactions (e.g. the payer sending cash via mail to the payee). The emergence of distributed ledger technologies and digital currencies now allows these types of transaction also to be executed electronically.

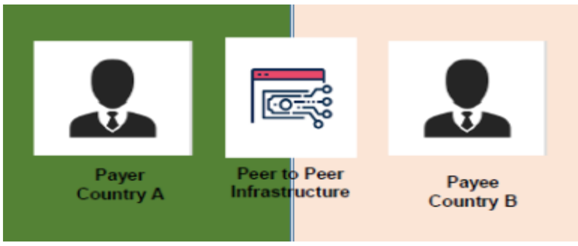

Figure 10: Peer–to-Peer Model

[20] Coye C., Scott B., Jones L. A Guide for the Payments Professional

[21] Glenbrook Press

5.3 Model Architectures

5.3.1 Decentralized Model

This is a system in which arrangements using a decentralized payments system for regional payments link the existing national settlement systems to different levels of sophistication and complexity (World Bank, 2014). Typically, these modes are structured in the form of a 'hub-spoke' structure, which has a central administrative and technical-operational facility that links the participating systems. Standardized messaging and connectivity technology provide connections between account management and the various national payment systems. These have generally been successful in situations where a regional common currency exists (World Bank, 2014).

Schemes that offer a decentralized settlement system involving multiple parties have been developed in regions where there is a regional currency, as well as for settling cross-border payments that are denominated by a single foreign currency. The most well-known example of a unified scheme, which had a decentralized settlement system for a regional currency, was the original TARGET in Europe, which linked the Euro RTGS systems of the national central banks in the EU.[22]

5.3.2 Centralized Model

Centralized platforms are mostly identified with regional integration projects that have evolved into a monetary union. They use a regional currency which, by either minimizing or eliminating the distinction between cross-border and domestic payments, opens up the possibility to process both types of payments, such as in the cases of WAEMU and SADCs SIRESS. Over the past decade, centralized payment system infrastructures have also been developed regionally, where no regional currency existed, to facilitate the settlement of domestic, regional, and cross-regional payments, in more than one settlement currency.

The centralized platform model, replaces the NPS infrastructures are replaced with a single international system. In this case, it is more appropriate to talk about the integration of the international payment system, whereby, participants access the system directly or indirectly through any direct participant that already exists in the system. Centralized platforms are mostly identified with international integration projects, most notably regional ones, which have evolved into monetary unions that use a regional currency. They either minimize or eliminate the distinction between cross-border and domestic payments, and allow for the seamless processing of both types of transactions in the same system. East African Payments System (EAPS), is one example where the national payment systems are linked through the holding of bilateral accounts among the Central Banks.[23]

5.4 Possible Alternative Considerations for COMESA Business Council

From the preceding discussions, MSMEs broadly face the following challenges: access to markets; where they have access, a payment system that is affordable and convenient; and issues of trust with regard to existing payment systems, notably in relation to cross border trade payments. At the same time, the existing regional payment systems are struggling with increasing the number and volumes of transactions, which implies that they are not fully utilized.

Consequently, in order to attain sustainability in any payment intervention, these three aspects must be adequately addressed as part of a holistic digital payment strategy. Therefore, it may be important to put into consideration MSME-specific appropriately digitized services that are conceptualized in the form of an e-commerce platform in the MSME digital value-chain, i.e. separate from payments. This platform will interface with the payment system as part of the business transactions. The platform should be composed of the following constituent parts: export credit guarantee schemes; access to credit for the transactions; customs and excise duty requirements; any foreign currency specific requests; interfacing with logistics services; and digital letters of credit, among others. There is a very strong business case for such a development.

[22] https://chaturvedimayank.wordpress.com/tag/regional-payment-and-settlement-systems/

[23] Evolving Networks of Regional RTGS Payment and Settlement Systems

If this approach is followed, then the attributes of the regional (cross-border) payment system that is required to support this regional "hub" could be defined as part of the development process, although the payment systems operator(s) should enable such payments, as opposed to the "hub".

5.5 CBC 'HUB'

It is proposed that CBC establishes an electronic marketplace known as a 'hub' for cross-border MSMEs. Conceptually, the CBC 'Hub' will serve as the regional marketplace, connecting buyers to MSMEs in the region, thus creating the "network effect" that is required for intra-regional trade. The chart below depicts this possible envisaged network effect in the COMESA region.

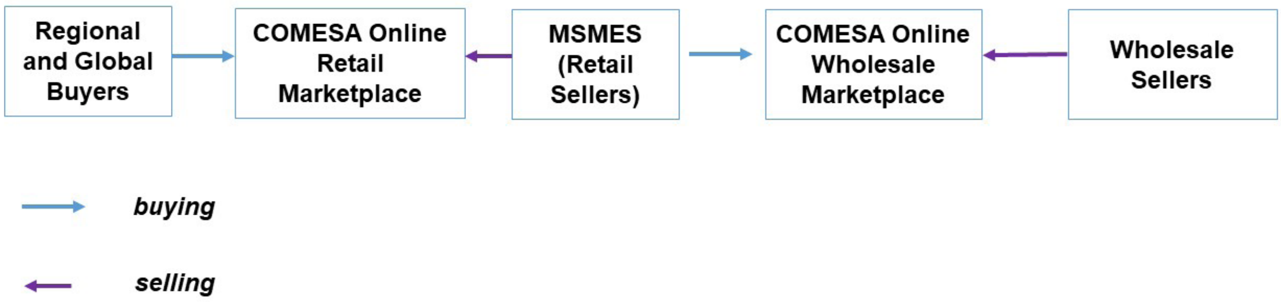

Figure 11: Proposed COMESA Ecommerce Platform

Both the retail and wholesale marketplaces could for the basis for the different product segments that CBC is prioritizing as part of its strategic framework. The focus must be on enabling MSMEs operating under the traditional retail model to transition to an easy to use and cost-effective digital interface. It is noted that there is scope for synergies with existing COMESA platforms such as the Digital Free Trade Area (DFTA).

The platform must enable MSMEs to directly acquire and communicate with customers and manage their interactions and relationships across online and offline channels. In order to create incentives for usage, considerations should be made to reduce merchant fees to as close to nil as possible, while buyer transactions must be free, except withdrawing funds, which should also be kept below a certain threshold. Functionality should allow transactions across different currencies.

5.6 Settlement System Considerations

This section addresses the third component of the payment system ecosystem - the settlement process.

5.6.1 Envisaged Payment System

There is a strong business case in terms of value of intra-regional transactions and in terms of possible value-added services that could be introduced by the regional system. In view of this development, an efficient, regional settlement bank will be chosen, which has the capability to operate both the Real-time Gross Settlement (RTGS) and Automatic Clearing House (ACH). This prevents the back and forth that happens between a clearing house and a settlement bank with the Telegraphic Transfers (TTs). Ultimately, it reduces the settlement time and eliminates foreign correspondent banking charges, towards meeting the goals of the project.

Alternatively, banks, payment services providers and all other authorized financial institutions that participate directly in the NPS can become part of an international payments system. In this case, end parties can transact instantly through the authorized intermediaries.

MSMEs will transact through their preferred method of money transfer as below:

- Mobile Payments (Smartphones or USSD)
- ATMs, Branch Banking & Agency Banking
- Fintech payments
- Internet platforms such as ecommerce (Biznet) etc.

It should further be taken into account that the preferred method of transfer will be operating under the regulatory frameworks of each country (ICT regulators, Central Banks and Telecom Operators), for secure and transparent transactions. The money transfer methods will be duly authorized by either the financial institution or payment services provider in their countries of origin, in order to ensure a clear chain of liability.

Depending on the model, selected insurance firms may also be involved in availing their services over the transaction period. An agreed upon profit margin will be calculated on each transaction after doing Total Cost of Ownership (TCO) that will be reasonable to the MSMEs that are involved in cross border trading over the region.

Given the feedback that was gathered in the field, there is an urgent need for an interoperable and affordable intra-regional payments platform. CBC needs to come up with the ideal model given the needs of the MSMEs. Therefore, the decision to either develop or leverage on the existing payment models lies with CBC. As indicated in this report, there is a business case for a low-cost payment system for MSMEs.

6. POLICY CONSIDERATIONS

6.1 Introduction

Regulatory frameworks are at the epicenter of both regional and national payments settlement schemes. Different countries within the COMESA region are at different levels of the development of the operational, legislative and policy frameworks on the payment systems. Almost all countries within the region have legislation and supporting regulations and directives on payment systems. These however tend to be aligned to national payment objectives rather than the regional block. Therefore, currently, harmonized legal and regulatory framework for payments does not exist in the region. Bech et al (2020) opines that cross-border systems will face challenges that will arise from a conflict of laws (e.g. ambiguity to do with which jurisdiction's laws apply), and sealing of legal gaps require potentially new legislation or treaties. This highlights the importance of putting into place a regulatory framework that underpins CBCs regional integrated digital common payment scheme for MSMEs.

Policy alignment and harmonization will affect a number of issues including cross-border payments and system integration, security, e-payments, channel access, data handling and protection. The World Bank Committee on Payments and Market Infrastructures (CPMI) (2016) cites the following as key aspects of the payments legal and regulatory framework: regulatory neutrality and proportionality; risk management; protection of deposits and e-money customer funds; financial customer protection; and financial integrity. It should also be able to support settlement finality, digital payments, electronic signatures, and interoperability across the scheme. This will also help economies to grow together and pull in the same direction regarding digital payments and Digital Financial Inclusion (DFI).

A properly structured policy framework on payment systems at the regional level, will benefit five types of digital transactions. These are: the B2B type - in which MSMEs need to participate in global, local and regional value chains; B2C type; the consumer to-consumer (C2C) type; the Business to Government (B2G) type for tax remittances; and the Government-to Business (G2B) type which offers various types of e-procurement (Rillo & Cruz, 2016).

6.2 Situational Analysis- Current regulatory scope

In this section, an analysis of the existing regulatory framework vis-à-vis the operation of the regional payment scheme and definition of certain issues that need to be addressed for policy and regulatory harmonization is done.

The table below highlights a comparison of the regulatory and policy frameworks in the nine (9) pilot countries, which is based on the input from stakeholders and the Better than Cash Alliance (BTCA), Responsible Digital Payment Guidelines[24]. The guidelines identify eight practices for engaging with the previously excluded market segments which are now using digital payments.

[24] https://www.betterthancash.org/tools-research/case-studies/responsible-digital-payments-guidelines

Table 16: Regulatory and Policy Framework Comparison										
Digital payments guidelines	Underlying policy and regulation Issues	Zambia	Malawi	Tanzania	Rwanda	Kenya	Uganda	Ethiopia	Egypt	Mauritius
Treat clients Fairly	Transparency of the transaction costs	×	√	√	√	√	√	√	√	√
	Respectful treatment	×	√	√	√	√	√	√	√	√
	Advertising and Sales information	×	√	√	√	√	√	√	√	√
Keep Client Funds Safe	Banks, (PSPs), and other financial institutions authorized to issue e-money.	√	√	√	√	√	√	√	√	√
	Customer funds must be held in trust	√	√	√	√	√	√	√	√	√
	Pre-funding	√	√	√	√	√	√	√	√	√
	Fund isolation	√	√	√	√	√	√	√	√	√
	Deposit Insurance	√	√	√	√	√	√	√	√	√
Ensure Product transparency for clients	Disclosure of terms of service		√	√	√	√	√	×	√	√
Design for Client Needs & Capabilities	Payment Service Design User Support:	√	√	√	√	×	√	√	√	√
Support Client Access and use through interoperability	Collaborative and industry-led Discourage deliberate barriers to interoperability.	×	√	√	√	√	√	×	√	√
Take Responsibility of Client Services across the value chain	Liability Training and oversight of Agents and Employees	√	√	√	√	√	√	×	√	√
Protect Client Data	Confidentiality & security	√	×	√	√	√	√	√	√	√
	Audit Trail	√	√	√	√	√	√	√	√	√
Provide Client Recourse	Consumer redress	√	×	√	√	√	√	×	√	√
Anti-Money Laundering and Countering Financing of Terrorism	Risk-Based Customer Due Diligence.	√	√	√	√	×	√	√	√	√
Interest-bearing mobile money accounts		×	×	√	×	√	×	×	×	×
Mobile Money Transaction Taxation		×	×	×	×	×	√	×	×	×

Table 16: Regulatory and Policy Framework Comparison

The analysis indicates that, majority of the countries already have regulations or a set of policies and guidelines that deal with the underlying issues related to digital finance and digital payments; albeit most of these regulations are at a national level. Furthermore, some differences, related to AML and data protection policies some of which are more comprehensive than others, still exist. Some of these differences for instance, while Tanzania has regulation with regard to payment of interest to individual mobile money accounts, Kenya's mobile money is not treated as a savings platform, and therefore, no interest is paid to such accounts, interest is only paid on balances that are transferred to bank accounts.

6.3 Incremental Vs Structural Changes in Cross Border Retail Payments

The design framework should consider incremental upgrades to the current arrangements of the small-value, cross-border retail payments as opposed to significant structural changes to the current business and payment practices. This is motivated by the manner with which the curve of innovations is shifting towards disintermediation of payments functions through fintechs, regtechs and insuretechs. This may result in the competitive balance of payments, marketplace success and financial intermediaries tipping and in turn impacting payments and financial markets architecture. As a result of this, effort should be put into made into effecting the payment functions such as fintechs and non-bank PSPs that are not currently regulated or covered by existing regulatory regimes for deposit-taking or non-deposit taking (credit only) financial institutions in many COMESA markets. One notable recent example is CBK's efforts to curtail lending and payment services by credit only mobile Fintechs/lenders such as TALA and BRANCH.

6.4 Preliminary Assessment

There is need to understand the nature and functionality of small-value cross-border retail payments systems in order to:

a) Identify problems, inefficiencies or improvements it is addressing;
b) Identify the affected part or parts of the value chain;
c) Map the MSMEs Payments Journey (end users);
d) Identify country level impediments and enhancers; and
e) Identify the level of implementation and readiness of e-KYC and Consumer Due Diligence metrics.

It is also critical to carry out an assessment of the country level bilateral and multilateral agreements, and political relations between countries. This will allow for the proactive identification of teething issues and allow enough time to either deal with them or attempt addressing them.

6.4.1 Payments assessment

It is recommended that before any design is implemented, a decision must be made with regard to the speed of clearing and settlement, both intra and inter country. This should focus on increased market and payments efficiency, improve safety of payments, clearing and settlement systems, promote technological, product and service innovations and influence, but not determine how to improve systems for cross-border remittances.

The engagement with MSMEs indicated that they rely on their money to make orders and payments, thus any delays may make them to revert to cash transactions, hence the need for an instant inclusive payment solution. The instant payment systems should therefore encompass two main features:

a) Speed; and
b) Service availability.

This means that final funds are credited and available either in real time or near-real time, seven (7) days a week, and 365 days a year. Not only should the funds be available within seconds or minutes, but the service should also run on a continuous basis almost always.[25]

25 IIPS - www.digitalfrontiersinstitute.org

6.4.1.1 Payment, Clearing and Settlement

Settlement in an open loop system refers to the process through which the intermediaries receive or send funds to each other. The settlement function in an open loop system can be done on either a net or a gross settlement basis[26], which may require net debt collateral for some participants to safeguard the system from systemic attacks.

6.4.1.2 Ownership

Decisions must be made with respect to ownership of the solution, that is: bank owned; third party owned; or owned by the participants in the sector. Ownership considerations are pivotal before the drafting of the policies. This will partially determine whether the solution will be for profit or not, and the resultant effect on the financial modelling of the same.

6.4.1.3 Regulation

Each individual country has a mix of governmental and/or private rules that regulate payments systems. Government rule is both by law, and through regulations that are issued by government agencies to implement these laws. Private system rules are mostly association based and include things that need to be considered when setting up regional policies, those that determine the technical system rules, and the operational rules that determine the compatibility of payment messages or codes.

6.4.1.4 Risk Severity Matrix

Small-value, cross-border retail payments in an interconnected system require that more data is shared across the key payment service providers and intermediaries. While these may offer benefits in ensuring greater market transparency and more effective risk management across payments and settlement systems. They may expose MSMEs to digital risks such as:

a) Systemic events and outages (like VISA recently experienced in Germany).
b) Online digital (hacking) risks.
c) Failure of a systemic Financial Markets Infrastructure (FMI) that would cause an immediate payments systemic outage which, through contagion and interconnectedness could spread to other PSPs and NPS.
d) Broad financial market risks at the early stages of development and implementation
e) Unknown future risks (due to the digital nature of payments solutions).
f) Risks of interconnections with other systems e.g. National Digital IDs, Distributed Ledger Technology (DLTs).
g) Measures to prevent, detect and address execution of malicious codes, faulty payments instructions or plain fraudulent transfers (in a high Fraud environment).
h) Operational and security risks facing End Users, Front-End PSPs, Back-End PSPs, and central banks (CBs).
i) Key operational risks affecting the resilience, reliability, security, and operational capacity and scalability of small value, high volume payments.

In addition, there are also specific risks relating to data and privacy such as data management and protection, guarantees on data integrity and customer/ transaction data traceability, and data privacy and confidentiality.

6.5 Stakeholders input- Policy and Regulatory Considerations

The stakeholders who were interviewed cited some policy and regulatory gaps that need attention in developing a regional payment scheme. They identified the following policy and regulatory gaps;

a) Security and consumer protection principles;
b) Alignment of national and regional financial services regulations (money laundering, data privacy, Know Your Customer [KYC], etc.);
c) Inter-Bank Payment Compensation Rules;
d) Routing rules;

[26] Benson C.C. at al, (2010) 3rd edition, Payments Systems in the U.S.A Guide for the Payments Professional, Glenbrook

e) Regulatory and operational framework;
f) Mobile money guidelines;
g) Interoperability with various payment systems and distribution channels;
h) Ease of access especially to MSMEs;
i) Clearing and settlement issues;
j) Exchange rates convertibility;
k) Complementing existing national and regional systems

6.5.1 Restrictions on Foreign Payments

A number of countries have implemented administrative or legislative requirements that inhibit the free flow of payments across the region. There is therefore need for the CBC to lobby/advocate for MSMEs to be considered a priority sector in foreign currency allocations. This can be managed through a mechanism where MSMEs exports are netted against their imports. This is critical towards ensuring that the member country's balance of payments position is not affected.

Also, countries can be encouraged to allow MSMEs to either use free funds or a prefunded model where if the allocation for MSMEs is used up payments will be delayed until the next allocation.

The overall country position calls for a meeting with the relevant central bank departments, as well as relevant trade and MSME ministries of the respective countries.

6.5.2 Absence of Escrow Facilities

It is noted that in some instances, although MSMEs made orders for goods online, and paid the required deposits, the actual deliveries did not occur. In such cases, the option would be litigation, which tended to be more costly than the funds that had been lost. As a result, MSMEs would forfeit their funds, which adversely affected their willingness to trade across borders.

This was specifically pronounced in Mauritius, where MSMEs indicated that they had lost interest of transacting with mainland Africa and had resorted to trading in Europe and Asia. This was attributable to their bad experiences with mainland Africa where did not have any recourse mechanism.

6.5.3 Gender inclusiveness

One of the key takeaway from the mission, with regard to gender was a statement from National Smallholder Farmers' Association of Malawi (NASFAM) which stated: "…instead of bringing the women to the market, there is need to bring the market to the women." A special consideration should be made to ensure that the digital route embraces gender inclusive policies, in order to facilitate women-owned MSMEs in the physical movement of goods.

It was observed that while some women indicated that they are comfortable with smartphones, a majority did not own the smartphones they were using. Both the SIM cards and mobile money accounts were not registered in their name hence legally, the financial transactions were not considered to be theirs. In some countries the microfinance institutions indicated that although some women took loans for their businesses, the money ended up with their husbands. When the bank delved into the data further, they realized that while some women were defaulting on their own accord, a significant number were failing to repay because of their spouses.

With regard to the foregoing, there is need to embed into trade policies into a micro-ecosystem to facilitate women empowerment, skills upgrading and market connections. Traders in rural Uganda were not aware of the existence of Buy Uganda Build Uganda (BUBU) initiatives, yet they were struggling to find markets.

In relation to this, it is therefore imperative that, the CBC undertakes technical capacity building programs to train women and MSMEs on standards, market access and digital technical skills in the development of the regional integrated digital common payment system for MSMEs. .

6.6 Comparative Regional Frameworks on Common payment schemes

There are a number of regional payment schemes that already exists globally and within the African continent which facilitate cross-border payments. These include: EU Single European Payments Area; SADC SIRESS; West Africa Economic and Monetary Union (WAEMU); East Africa Payment System (EAPS); and COMESA Regional Payment and Settlement System (REPPS). Different regulatory options that are proposed include building on the existing RGTS systems as is the case in the EAC, or through separate governance structures such as the SEPA, SIRESS and REPSS.

6.6.1 EU Single European Payments Area

The legal framework for EU Single European Payments Area (SEPA) provides for cross-border payments within the European Union (EU). The EU currently covers 36 countries - whole of the EU and also applies to payments in Euros in other European countries including Andorra, Iceland, Norway, Switzerland, Liechtenstein, Monaco, San Marino and Vatican City State. It is based mainly on the following regulations: Cross-border payments regulation, the Payment Services Directive (PSD/PSD2), the SEPA migration end-date regulation, and the interchange fee regulation.

- Regulation (EC) No 924/2009 cross-border payments in the EU - The aim of this regulatory framework is to provide for cross-border payments and charges for cross-border payments.
- Directive 2007/64/EC on Payment Services in the Internal Market - This provides the legal platform for SEPA. The directive focuses on harmonizing legislation pertaining to the provision of payments services within the EU, covering issues of charges and define the rights and obligations of payment service providers and their users.
- Regulation (EU) No 260/2012 Technical and Business Requirements for Credit Transfers and Direct Debits in EURO - regulates credit and debit transfers within the EU market.

Other supporting provisions include:

- Directive 98/26/EC Settlement Finality in Payment and Securities Settlement Systems (1998) - The key provisions on transfer orders and netting, provisions concerning insolvency and collateral security.
- Other regulations include Directive 2009/110/EC E-Money - Guidelines on e-money, anti-money laundering, and the EU General Data Protection Regulation.

The SEPA is managed through the European Central Banks and European Payment Board (industry, government and consumer representatives). This includes development of the payment's regulations or rules book for the operation of the payment scheme.

6.6.2 Analysis

Chapter 5 provides a summary of the analysis for the sampled countries in the study, but the scope may need to be expanded to cover all the countries in the region. Ideally, such an analysis should cover the following aspects:

Jurisdictional Comparative Analysis		
Primary Legislation	Payment systems Acts	Directives, policies and position papers
Payment Systems	Regulatory rules, clearing rules and participation criteria	Constitution, agreements and policies
Settlement Arrangement	Service agreements	Operational standards/requirements
Provision for Innovation	Sandbox requirements	Operational requirements

Table 17: Jurisdictional Comparative Analysis

In assessing what works effectively in the current framework versus what does not, it will be important to consider how effectively the existing policy and regulatory frameworks in the different countries have achieved their intended regulatory objectives.

The following are identified as important attributes to determine the level to which the different legislative frameworks could have achieved their overall objectives:

a) Extent to which the frameworks are delivering on their objectives;
b) Level of coverage of the payment space;
c) Adherence to international standards and best practices;
d) Effectiveness and accountability of the institutional arrangements;
e) Proportionality and efficiency of the regulatory framework;
f) Flexibility of the regulatory framework;
g) Timeliness and responsiveness of the regulatory framework;
h) Compliance and enforcement mechanisms; and
i) Redress mechanisms.

6.6.3 Considerations for CBC

It has been noted that there has been an increase in the number of countries coming together to develop regional payment rules, schemes, and infrastructures, and evidently there is a number of different regional payments integration models for the CBC to consider. Each model of regional payments integration has its own definition of success, despite and although there are diverse measurements of success, there are some common features among the different models. Most models seem to be in agreement that successful implementation of a regional system can be achieved by maximizing the effects of enablers while minimizing the impacts of disablers.

According to Lipis and Adams (2014), the enablers roles include ensuring the widespread involvement of a wide range of stakeholders, receiving cooperation from the banking industry, regulatory, strong political will, looking at lessons and borrowing standards from other geographies, bringing in outside experts when needed, ensuring common standards in regions that need to build domestic payment systems from scratch, the existence of modern IT platforms within banks and PSPs, and limiting participation in the regional schemes or systems.

They further observed that disablers include regional payments integration and the existence of varied levels of payment system sophistication within a region, lack of uniformity in implementation standards, using a third currency for settlement or conversion, failure to involve all stakeholders, lack of modernized internal infrastructures within banks, pursuing the "build it and they will come" model, having too much inclusiveness within a regional organization, banks focused on regulatory compliance instead of innovation, and unreliable energy supplies and telecommunication networks within the region.

In relation to this, it is critical important that CBC focuses more energy on the enablers as they make a decision on the payment systems.

6.7 Policy and Regulatory Recommendations for a digital integrated regional common payment scheme for MSMEs

6.7.1 Key drivers of policy and regulatory harmonization

The transformation of a payment system is a process that requires a significant amount of flexibility. Payment regulations should be anchored in clear and specific objectives, which should be shared across all the member states. At the same time, success is an ecosystem value play, and players must focus on and understand how their value proposition integrates into the ecosystem.

The payment space is rapidly evolving with changes in both the wholesale and retail aspects. These changes necessitate a review of the regulatory frameworks within the region to ensure that they are aligned to international best practice and standards. These matters relate, but are not limited to, the payment aspects of financial inclusion, digital currencies, cyber security, recovery and the resolution of financial market infrastructures, including cross-border payment facilitation (SARB, 2018).

Furthermore, various initiatives that are aimed at harmonizing trade and other aspects of the economy, of which payment systems are a component of are in existence within the region. The increased focus on the development of retail payment systems as well as the need for increased financial inclusion, specifically for women, access to the payment systems, and competition necessitates harmonization and a review of the current payments legislative framework to ensure that they are appropriately aligned with the general principles.

6.7.2 Overarching objectives underpinning a digital regional common payment scheme for MSMEs

The policy framework will have to outline the key objectives including the interventions it seeks to address.

These objectives may include the following:

a) Financial Inclusion: This remains one of the region's priorities and is recognized for its vital role in eliminating poverty and reducing inequality, providing for MSMEs trade facilitation, and reducing barriers to access to financial services.
b) Open loop systems: This allows the two end parties to transact with each other without having direct relationships with each other's banks. Similarly, the banks, can transact with each other without having a direct relationship.[27] Open loop systems are the backbone of most successful payment schemes world over, and they rely on intermediaries, usually banks, to connect end parties. The advantage of the open loop structure is that it allows a payment system to scale up rapidly, which is critical in any new system that is being introduced into the market. Benson et al., (2010) argues that as intermediaries join the payment system, all their end party customers are immediately accessible to other intermediaries participating in the system.[28] From a regulatory and policy perspective, it is recommended that the system is open loop and interoperable.
c) Interoperability: This recognizes the different payment interfaces, and the need to ensure that they can all work together seamlessly without an additional cost burden on the consumer. Considerations would be made for unified payment systems that allow consumers to make, receive and request for payments using unique identifiers.
d) Promoting competition and innovation: This is facilitated by enabling non-banks to participate directly in the payment system provided they are regulated. Typically, direct access to payment systems are the preserve of regulated providers. This is a necessary consequence of the need for appropriate oversight, and for the stability of the payment system. Direct access by end-users is, from a regulatory perspective, an unprecedented and high-risk scenario. This implies that access to the payment system (national and cross-border) will be through regulated providers, e.g. banks and regulated non-bank operators such as the PSPs. Competition should be fostered by facilitating cross-border payments for banking and non-banking operators, guided by COMESA-wide standards, and supported by send/receive licenses across the region.
e) A clear and transparent regulatory and governance framework: This entails a collaborative approach to the regulatory review, and putting into place robust governance mechanisms, to monitor and oversee the implementation of the solution. Ideally, this should include attaining the relevant political buy-ins.
f) Cost-effectiveness: There is need to ensure that solutions come at a price level that does not constrain the end user.

[27] Benson, C, C., Loftesness, S., and Jones, R. (2010) 3rd edition, Payments Systems in the U.S.A Guide for the Payments Professional, Glenbrook

g) Regional integration: This confirms and reiterates the importance of ongoing harmonization efforts and positions with regard to the digital payment system within this paradigm.
h) Flexibility and adaptability: It includes the need to collaborate with other role players, such as FinTechs and other telecommunication providers, to deliver a cost-efficient system. Regulatory frameworks need to be accommodative enough to allow non-banks to be innovative in the payment system. This could be facilitated through regulatory sandboxes.
i) Common data standard: Without a common data standard that all participants in the regional infrastructure or scheme agree to use, it is difficult for banks, Central Banks, corporates, and other stakeholders to communicate with each other. This leads to inefficiencies and mistakes that can doom the project from the start.[29]

6.7.3 Main policy issues, proposals, and recommendations

Based on the plan, and the policy and regulatory issues that were identified, the required policy instruments can be designed to ensure that the regulatory changes are in line with the development of the MSMEs. Leading consideration should be put into improving trust within the sector through increased visibility of the system. Overall, this will be done through five key considerations as summarized below:

i. Facilitation of cross-border payment integration:

a) Open loop and interoperable regional payment infrastructure to foster innovation and competition among service providers while maintaining system stability and security.
b) Harmonization of cross-border payments regulation and standardized system design.
c) Enable the biometrics standard for identity verification in the electronic e-KYC to facilitate future payment innovations.

ii. Fostering innovation and Payment Services

a) Encourage financial institutions to test each innovation in their own sandbox in order to increase business opportunities, aimed at addressing consumer needs at a faster pace.
b) Promote pilot projects in partnership with the public and private sectors for the implementation of end-to-end e-Business processes and digital payment to reduce costs and increase operational efficiency.
c) Support the adoption of various technologies in the development of payment services, such as, contactless payments, an alternative service in place of cheques, cross-border funds transfer and convenient, secure and low-cost payments, , and payment services that help build trust in online shopping, such as a secure / escrow payment facility.

iii. Promoting Access and Use of Payment Services (Inclusion)

The development of a digital payment system in the COMESA region will yield the highest benefits, if it caters for MSME needs. It is therefore essential to improve access to, and ensure the widespread use of convenient digital payments towards replacing the use of cash and cheques. Key measures include:

a) Encourage increased adoption of the digital payment by government agencies and state enterprises that frequently transact with the public to broaden the usage of digital payments.
b) Reduce costs related to mobile payments, in order to allow people in remote areas to gain access at a low cost.
c) Increase the availability of infrastructure country-wide.
d) Educate consumers on safe practices and correct use of digital payments and technology through various channels, to promote consumer confidence and empower them to choose appropriate services that best serve their needs.

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iv. Strengthening supervision and risk management (Immunity)

Safeguarding system security and ensuring sound consumer protection are essential to the promotion of stable payment systems, and increasing consumer confidence in electronic financial transactions, particularly today when technologies are becoming increasingly complex and changing rapidly. Key actions are:

a) Encourage the adoption of cyber security standards at both organizational and national levels, in close collaboration with industry.
b) Build a sound management mechanism, and good governance among payment service providers.
c) Improve consumer protection.
d) Enhance the supervisory framework to ensure it is proportionate with the nature and risk profile of the business providers (risk-based supervision).
e) Adopt the Regulatory Impact Assessment (RIA) principles in the policy formulation and revision processes towards fostering innovation and reducing regulatory burdens.

v. Enriching Payment Information

Data has become a fundamental factor that is driving economies towards the digital economy. In this regard, payment data can be utilized in many aspects, including the use of: payment data to analyze online stores, and cross-border payment data to evaluate expenditures of foreign tourists'. Therefore, COMESA must emphasize on proper data management and data integration. Key measures under this initiative include:

a) Integrate payment data among capable entities to encourage data sharing and provide in-depth information for all parties to be used under appropriate and rigorous data governance and privacy measures.
b) Enhance efficiency in payment data analysis and utilization to foster the development of financial innovations, and support various policy works and supervision.
c) Promote the adoption of modern technology, such as machine learning, to increase speed and accuracy in data processing. COMESA must also focus on improving the quality of existing statistical data, alongside the acquisition of new data or developing new indicators and collaborating with government agencies in establishing a micro-data infrastructure that is necessary for national policy implementation.
d) Allow regional and cross-border data flow.

7. RECOMMENDATIONS AND CONCLUSIONS

7.1 Conclusion

Most COMESA countries have the necessary foundational legislative frameworks to support the functioning of a regional digital common payments scheme for MSMEs. The COMESA Treaty already provides the foundation for the integration of financial services within the region. The participation in the regional payments schemes (SIRESS, EAPS, REPSS) by COMESA member states highlights the readiness and ability of the countries' regulatory systems to enable a regional digital retail payment scheme for low value customers -such as MSMEs.

Each country is unique and has its own challenges, and some economically smaller countries would fear joining the bandwagon because of the need to protect their monetary system from imported risks. As such it is critical to analyze the various payment services and the respective countries' policies, regulations guidelines and laws prior to developing a comprehensive policy for the region. It is however recommended that because some countries take longer to come up with policies the COMESA policies supersede all other policies in dispute, although individual countries must agree on this. Discussion on legal constraints facing cross-border payments remains to be an outstanding issue.

There is need to develop regional policy that will support the establishment of the Regional Digital retail payments scheme for MSMEs.

7.2 Recommendations

The following are recommendations to member states, which will support further engagement on addressing the integration of MSMEs into digital financial space for cross-border trade.

a. Development of regional policy to support digital retail payment scheme for Micro Small and Medium Enterprises (MSMEs)

Member states are urged to consider developing a regional policy on digital retail payment for MSMEs, which will support the scheme. This will pave way for the development of a business model on regional digital retail payment scheme for MSMEs.

b. Acceleration of implementation of digital policies within the region

Member states are urged to accelerate the implementation of the twenty-three guiding digital policies that form the basis for supporting the level of readiness for e-trade across the COMESA region.

c. Development programs to support MSMEs access to digital financial services.

Member states are requested to put in place national programs to develop the MSMEs' technical skills in order to strengthen their usage of digital solutions within their markets and across the region.

d. Building capacity in Financial Literacy

Member countries are urged to build the MSMEs' capacity in financial literacy in their respective countries. This can be done through the development of financial literacy programs. It is anticipated that financial literacy will catalyze the uptake of digital platforms and enhance DFI, thereby opening up markets beyond borders. This is expected to positively impact on trade within the COMESA region.

e. Improving on the quality of products for the MSMEs

The MSME products face challenges of market access due to quality issues. There is therefore need to conduct training programs on quality issues for MSMEs and also provide them with trade information and market forecasts

f. Instant inclusive payments

The MSMEs may lack the budgetary elasticity that large companies have. As such, there is a need for the payers to do instant settlements because MSMEs cannot afford capital being tied up in the payment system.

Majority (38 percent) of the MSMEs indicated that they are comfortable with using mobile money. It is therefore recommended that the payment system that will be considered, allows for access through the mobile phone. Interestingly, majority of the MSMEs (55 percent) indicated that they would consider ordering inputs online and pay digitally, while 59 percent reported they would contemplate selling their produce online and receiving payments digitally. It is therefore important to use the gadgets that the MSMEs are comfortable with.

In order for payments to be affordable, there is need for COMESA to come up with an interoperable, open-loop system that allows all sector players to participate in the scheme.

g. Commissions Limits and fees

It is recommended that the scheme must be scalable, robust and should be operated on a not-for-loss basis. The participants should not make profits from the system itself, but they will be allowed to earn profits through adjacencies. This will make it affordable for MSMEs, the informal sector, as well as individuals who intend to use the platform for domestic remittances. A significant number of the MSMEs who were interviewed were of the opinion that the transacting through digital channels was expensive.

Another challenge that was shared by MSMEs are the low limits allowable on their accounts. Low transaction limits results in more transaction time being needed to complete orders. Secondly, daily transaction limits may also not be adequate for some orders, while monthly transaction limits may mean that the MSME are unable to continue running their businesses as a result of having reached the mandated limit. While it is appreciated that each country is unique, the recommendation is that a risk-based approach to AML/CFT becomes central to implementing all the FATF standards.

It is also recommended that daily transaction limits be increased from an average of US$500 to US$3000. In the same vein, it is understood that the scheme ought to be sustainable while operating as a not-for-loss entity. It is therefore recommended that the pricing for cross-border payments be standardized at about 0.75% of the total amount of money being sent. To ensure uniformity and fair competition, there is also need to develop COMESA digital payment guidelines.

h. Data security and consumer protection

It is critical for the success of the payment scheme, consumers ought to trust the system. While MSMEs may be happy to use the system, there is need for their data to be protected by making their transactions irrevocable. Tariffs should be easily accessible by consumers, in addition to a validation module, before funds are transmitted to the payee.

In cases where countries do not have data and/or consumer protection regulations, the regional standards will be used. In cases where there are disputes, the regional data and consumer protection guidelines will be the supreme guidelines.

Before the payment scheme becomes operational, it is recommended that scheme rules explicitly indicate the roles of each participant, as well as highlighting all compliance and risk issues including the penalties in case participants are found wanting.

i. Financial deepening

While most of the MSMEs have access to transacting accounts, majority still lack access to financial services, which limits their options. The MSMEs indicated that most of the financial service providers do not accept their mobile money statements for credit analysis, which excludes them from accessing affordable credit. Most small holder farmers are a step away from falling back into poverty, although there are insurance products that they can afford, if only the collection cycle can be changed. It is recommended that participating financial service providers offer tangible incentives for MSMEs to adopt and use digital financial services.

7.3 Proposed Options

The proposed options considered in this report include the following:

a) Developing a completely new payment system;
b) Leverage existing solutions already in the market; and
c) Leverage open-loop interoperable systems designed to opening economies

	Option A- Develop New System	Option B- Leverage off existing systems	Leverage open-source software
Benefits	✓ Increases available payment options which could potentially improve the efficiency of the cross-border retail payments market	✓ Central banks already have accounts set up. ✓ Reduces foreign correspondent banking charges ✓ Provides high trust channel as payments are exchanged through central banks.	✓ Users can easily acquire and use DFS services ✓ Affordable ✓ Reliable ✓ Plug and play ✓ Open-loop/ Interoperable ✓ Irrevocable Payments
Challenges	✓ Cost and administration set up cost of putting together an entirely new system ✓ Potential duplication and cannibalization of existing resources ✓ Need to drum up new political will and support	✓ Legacy systems and costs associated with interfacing with newer technologies. ✓ Current low uptake by banks ✓ Ability to adapt to new and modern standards such as distributed ledger systems	✓ Lack of political will ✓ Fear of cloud-based technologies ✓ Absence of laws supporting its implementation

Table 18: Proposed options

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APPENDICES

APPENDIX 1: METHODOLOGY

In order to assess the feasibility and potential digital payment model within the COMESA region, the underlying theory used to understand the phenomenon was the Theory of Constraints (TOC). Based on Goldratt & Cox (2004), the essential concept is that every entity must have at least one constraint, and the focus is with regard to the constraint in the processes. While initially conceptualized in a manufacturing organization, non-manufacturing constraints exist, such as market demand, and the ability to convert market demand into sales. It helps decision makers to decide on what to change, what to change it to, and how to cause the change. Despite its name, the "Theory of Constraints" is not particularly theoretical, but rather helpful in finding practical and effective solutions to business problems.

TOC takes the analytical and diagnostic view at processes within the business and lays it out in a step-by-step procedure as shown below.

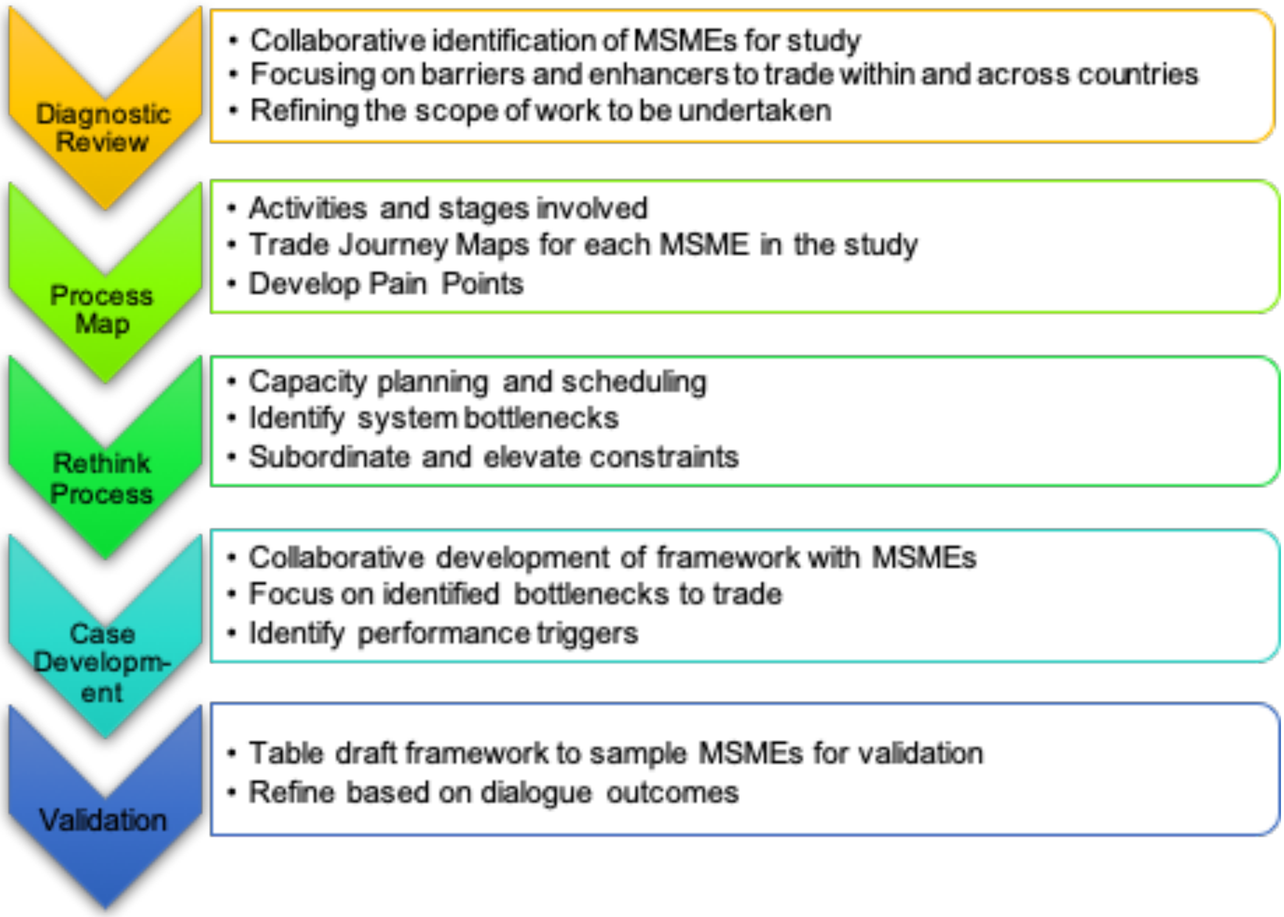


Figure 12: TOC Procedure

1.1. Research Population and Geographical Scope

The field missions were carried out in nine (9) countries[30] as shown in Fig. 13 below. These were selected on the basis of common trade corridors. While Tanzania is not part of COMESA, it was included in the study because of its advanced digital financial system, as well as being in both Southern African Development Community (SADC) and EAC, it trades with the COMESA member states regularly.

[30] Zambia, Malawi, Uganda, Kenya, Ethiopia, Egypt, Mauritius, Tanzania, Rwanda

Figure 13: Member States for Study Sample

1.2. Diagnostic Review

This entailed a collaborative identification of stakeholders for the data collection. The sampling and data collection methods used for each stakeholder category is highlighted in this section. The diagnostic review focused on barriers and enablers to trade within and across COMESA countries.

1.3. Desktop Review

A review of secondary literature was done on published documentation from government and oversight bodies, news reports, independent studies, and publications from stakeholder and other interest groups. All the sources that were used are cited.

1.4. Interviews (MSMEs)

Due to time and financial constraints, purposive sampling was used with the aim of leveraging on the existing CBC networks.

Stakeholder	Target per country	Approach
MSMEs	• 25 companies: • 10 Micro • 15 Small	• Data collection technique: Interviews • Duration: 2 hours max • Participants: 6-20 per group

Table 19: Targeted MSMEs

Meetings were held across the selected countries within the COMESA region, with each meeting taking at least two hours. Different representatives of different groups (micro vs small) were invited to ensure broader representation. The views, which were collected in these sessions were collated into the broader country reports.

1.5. Expert Semi Structured Interviews (Stakeholder Drivers)

The purpose of this data collection approach was to solicit the inputs of stakeholders on the supply side for MSMEs, with respect to MSMEs and digital payments. These included infrastructure providers such as financial service providers, mobile money operators and payment system associations.

Purposive sampling was used with the MSMEs, in order to leverage on the existing CBC networks. On the other hand, meetings were set up with a senior official for each of the identified 'driver', where the semi-structured themed interview schedules were used to obtain the primary data. Themed interviewing, also known as "in-depth" interviewing, is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program, or situation (Boyce & Neale, 2006). Using this method, a list of themes was compiled, with each theme introducing an issue to the interviewee(s), which the interviewer sought new information and perspectives on.

Stakeholder	Target per country	Approach
Drivers	• Banks, MFIs, Credit savings schemes (5) • Mobile Money Operators, telecommunication companies (3) • Payment systems operators/associations (1)	• Data collection technique: Themed Interviews • Duration: 1-hour max • Number: at least 9 • Participants: 1 per interview

Table 20: Targeted Drivers

1.6. Regulators

These stakeholders were grouped as follows: both financial and ICT sector regulators; NPS authorities; and policymaker's i.e. relevant ministries in the respective countries.

Consistent with the 'drivers' interviews, this also followed a themed interview approach. Using this method, a list of themes was compiled each introducing an issue to the interviewee(s), on which the interviewers sought new information and new perspectives on them.

Stakeholder	Target per country	Approach
Regulators	**4** • Bank regulators • ICT regulators • Ministry of Finance • Ministry of ICT	• Data collection technique: Themed Interviews • Duration: 1-hour max • Number: at least 3 • Participants: 1 per interview

Table 21: Targeted Regulators

1.7. Companies

This stakeholder grouping included established companies that engage with MSMEs. Sampling was done using a purposive sampling approach, followed by a themed interview approach.

Stakeholder	Target per country	Approach
Companies		• Data collection technique: Themed Interviews • Duration: 1-hour max • Number: at least 3 • Participants: 1 per interview

Table 22: Targeted Companies

These sessions were all recorded for further interrogation.

1.8. Process Map

Based on data from the diagnostic review, as well as the review of secondary data, trade activities and stages involved in the cross-border transactions were mapped out, which culminated in the trade journey maps for a selected group of MSMEs to identify the main pain points to which a solution can be designed. This was shared with the MSMEs for validation and for further iteration.

1.9. Rethink Process

On the basis of the process map, new operational capabilities were developed, including new processes, procedures, and structures and operating models. This entailed capacity planning and scheduling, identification of system bottlenecks, and subordinating and elevating constraints.

1.10. Business Case Development

The business case development leveraged the earlier phases to provide a framework for the planning and management of the expected process change. In developing the business case, the following aspects were considered:

a) What are the MSME needs;
b) What benefits are expected and how are they aligned with business strategy;
c) What factors are critical for a defined successful outcome;
d) Why a particular option is preferred from among the others;
e) How external resources will be sourced, and why this offers the best deal;
f) How funding will be provided, and whether the cost will be affordable;
g) When and how the benefits will be delivered; and
h) What are the risks and how they will be managed?

1.11. Validation

Creswell & Poth (2018; 254) position validation in terms of quantitative equivalents, postmodern and interpretive lenses, and importance of the construct. The essence of validation is, however, to establish the 'trustworthiness' of a study. In this study, the validation techniques were done:

a) Researcher's lens – the fieldwork team undertook to check the accuracy of a qualitative account through collaborating evidence using triangulation of multiple data sources. Consequently, primarily data from the fieldwork, i.e. interviews and questionnaires was collaborated with secondary data from already published work, Central Bank annual reports and databases such as the World Telecommunication/ICT Indicators Database.
b) Reviewer's Lens – the report was externally checked by a peer team within CBC. The objective of the external reviews was to ask hard questions about methods, means and interpretations. This was done iteratively between February and April 2020.

c) Participant's or Stakeholder Lens- participants played a key role in the validation, through member checking. In this context, the team solicited the participants' views on the credibility of the findings and interpretations (Creswell & Poth, 2018). For this validation strategy, several validation workshops were conducted with participants from April to July 2020.

1.12. Methodological Summary

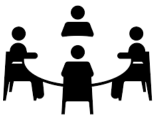
	Research from published documentation from government and oversight bodies, news reports, independent studies, stakeholder and other interest group publications. All sources used are cited.
	Field Work entailed the design of a comprehensive data collection tool, which was customized for the different stakeholders, leveraging CBC's informational networks and diagnostic reviews of selected countries.
	Extensive interviews were conducted with key stakeholders in the nine countries that were selected COMESA, which focused on barriers and enhancers to trade within and across COMESA countries, and prioritized digital payments. Site and border visits were done in all countries except Egypt, Ethiopia and Mauritius. (In Mauritius a visit to the port was done)
	Questionnaire was used as a primary data collection tool with the MSMEs, informal traders and cross-border traders being the primary respondents, due to their huge numbers. The questionnaire was used in all nine countries. The focus was mainly on the identification of major challenges that the MSMEs are facing in terms of domestic and international trade. The survey consisted of 51 questions. The first five (5) questions sought to profile the MSME owners. The second eight (8) questions examined the profile of the MSME as a business. The next 10 investigated the major challenges the MSMEs were facing in terms of access to finance. The last 28 questions thoroughly studied country level trade facilitation and e-commerce initiatives, and readiness for both local and international trade. Results are present in country by country basis.
	Development of the Business Case Report for Digital Integrated Regional Common Payment System, as well as reporting on the same to a private sector engagement and public-private dialogue.

Table 23: Methodological Summary

1.13. Limitations

Limitations are the possible weaknesses of the study, which are out of the researcher's control (Saunders, Lewis & Thornhill, 2016). There following limitations were faced in this study:

a) The willingness of the research participants to be candid in their responses in this research.
b) Some participants considered the data collected to be private information and the responses could have been weakened as a result of this. Similarly, some participants refused to have the interviews electronically recorded, affecting the team's ability to refer back to the transcribed records.
c) Time was limited - A lot of time could have been spent with MSMEs, informal traders and cross-border traders, to further understand their operations and challenges.
d) Some stakeholders considered the exercise to be in competition with their own programs, thus meetings could not be conducted with them.
e) Sample sizes where small considering the size of the project.

APPENDIX 2: KENYA

1. MACRO-ECONOMIC OVERVIEW

With a population of 53,771,296 (UN, 2020), Kenya is a market-based economy with a liberalized external trade system and a few state enterprises. Major industries include agriculture, forestry, fishing, mining, manufacturing, energy, tourism and financial services. By 2019, Kenya had an estimated GDP of US$ 99.246 billion and per capita GDP of US$ 2,010.

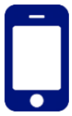
		
Mature mobile payments market and mobile penetration is more than 100%[31] ICT contribution to GDP of 2.6%[32]	Limited access to traditional banking methods including cards and bank accounts	Median age of 19; an entire generation has grown up with mobile payments

Table 24: Key Statistics Kenya

Firms use digital platforms to offer commercial products and services including e-commerce (e.g. Amazon, Alibaba, and Jumia), search engines (e.g. Jumia, Masoko by Safaricom), content platforms (e.g. Mdundo, irokotv, Waabeh) and ride-sharing applications (e.g. Mondo Ride, SafeBoda, Little Cab).

The banks in Kenya c have also embraced the use of mobile banking, with a majority of them having more than 60% of their products and services accessible via digital platforms.

2. OBSERVATIONS FROM MSMES IN KENYA

2.1 The MSME Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business. This was useful in understanding the entrepreneurial densities across these classes. There were sixteen (16) MSME respondents in Kenya, with the majority (88%) domiciled in urban areas.

2.2 Demographic Profile

With regard to gender, 44% of respondents were female, which when extrapolated into the actual adult population, reflects an inverse relationship, i.e. the female population is bigger in Kenya (50.5%). Incidentally, in response to their reasons for starting a business, 89% and 71% of the male and female respondents respectively reported the pursuit of entrepreneurial opportunities. The remaining 29% of the female respondents attributed the reasons behind their starting a business to the search for means of survival. This implies that female entrepreneurs could benefit significantly from capacity building trainings, and market linkage opportunities to grow their businesses. In terms of qualifications, about 43% of female respondents indicated that they had tertiary qualification; however, a majority of them can be classified as micro-level entrepreneurs.

[31] Unless specifically indicated, data from https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

[32] https://www.knbs.or.ke/?page_id=3142

Figure 14: Gender Distribution: Kenya

All the male respondents could be classified as micro-entrepreneurs, with an equal percentage, 44% having attained secondary or at most tertiary education, with the remaining (12%) received vocational training. The higher proportion of male business owners in the micro- level enterprises can be attributed to most of them having had lower educational attainments and hence fewer formal employment prospects.

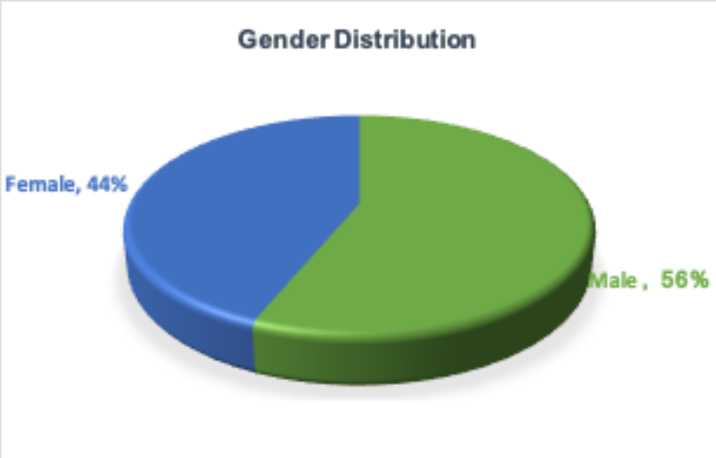


Figure 14: Gender Distribution: Kenya

An analysis of the gender matrix amongst Kenyan MSMEs, revealed that female respondents are more likely to be involved in retail and wholesale (43%), agriculture (14%) and others - mainly services industry (29%). This pattern was similarly observed with the male respondents.

However, it can be noted that the majority of MSMEs in Kenya (56%) were in the retail and wholesale sector, 13% were in agriculture and 25% were in other industries. At least six (6%) of the respondents did not disclose their industry.

Regarding the forms of business, sole proprietorship and partnerships were predominant with the male respondents, at 58% and 66% respectively. Conversely, all limited liability companies that were encountered in the study had a 100% female ownership.

As shown in Figure 15, half the respondents were under 34 years, with adults aged between 35 and 44 years constituting 44% of respondents. It is observed that the MSME sector has the potential of alleviating the unemployment among the youth. If well managed in an inclusive and sustainable policy environment, MSMEs have the capacity to contribute to the government's effort of promoting economic empowerment of the youth in the country. It also implies that most MSME owners are young entrepreneurs with limited business experience, which provides an opportunity for the government and CBC to expand business support services to this market segment, locally known as "Jua Kali".

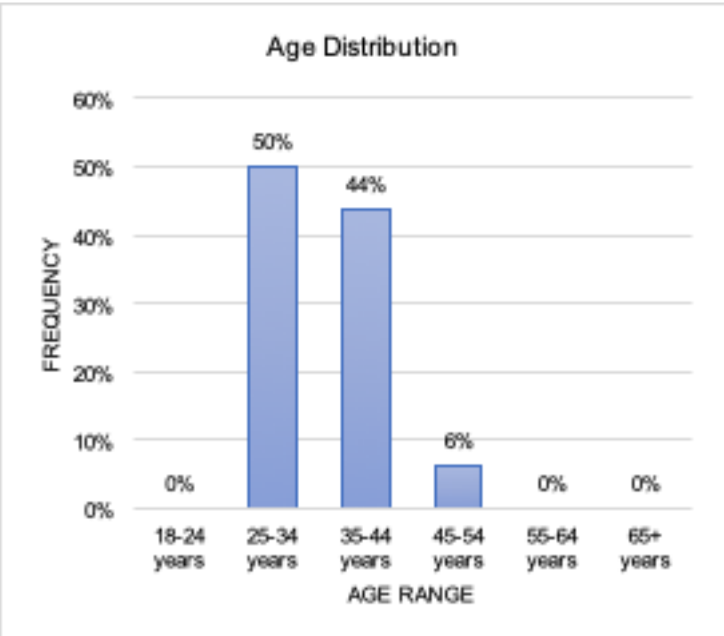


Figure 15: Age Distribution: Kenya

2.3 Trade Facilitation and Ecommerce

With regard to access to finance, figure 16 shows that 66% of entrepreneurs started their businesses using money their personal savings, 22% were financed by family and friends, while six (6) percent accessed informal credit. Only six (6) percent of the MSMEs managed to access credit from formal financial institutions.

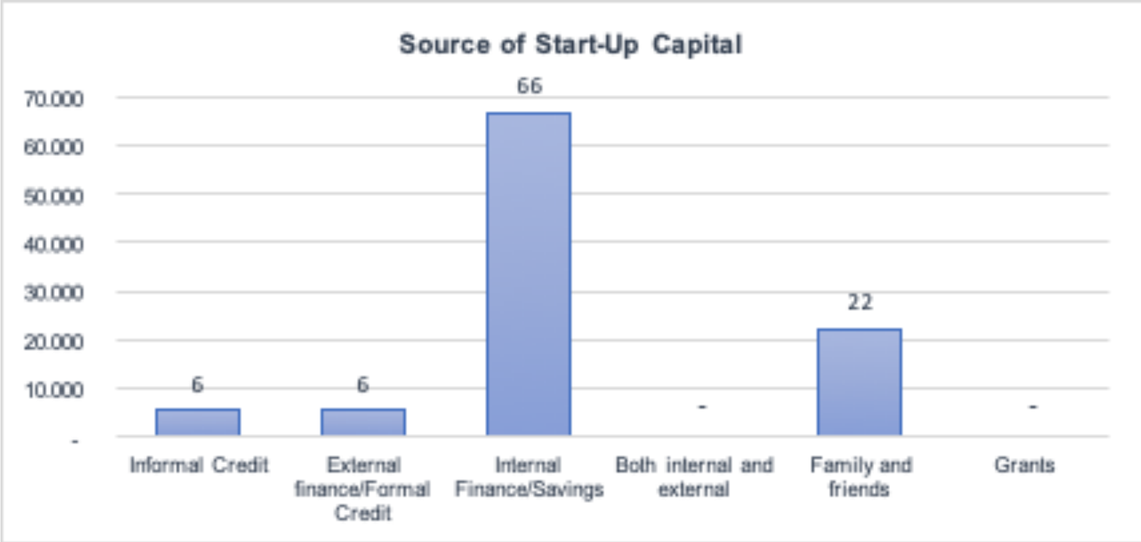


Figure 16: Sources of Capital - Kenya

Over reliance on internal finance, money from family and friends or otherwise from informal lenders poses a significant challenge to the MSME sector. It takes time for individuals to accumulate enough savings to finance a start-up. The second challenge is that there may be an increasing number of micro-enterprises that remain the same over a considerable number of years. The study has shown that although a majority of the respondents have been in business for over five (5) years, they however still remained micro-enterprises.

The study also revealed that 81% of the respondents had a transacting account (financial institution and/or mobile money), which is a critical starting point for DFI. The respondents attributed this to the security that transaction accounts offer, as opposed to handling cash. This also confirms the extent to which Kenya's thriving technology and innovation has created new market opportunities and introduced alternative channels to provide accessible, safe and cost-effective MSME financing solutions.

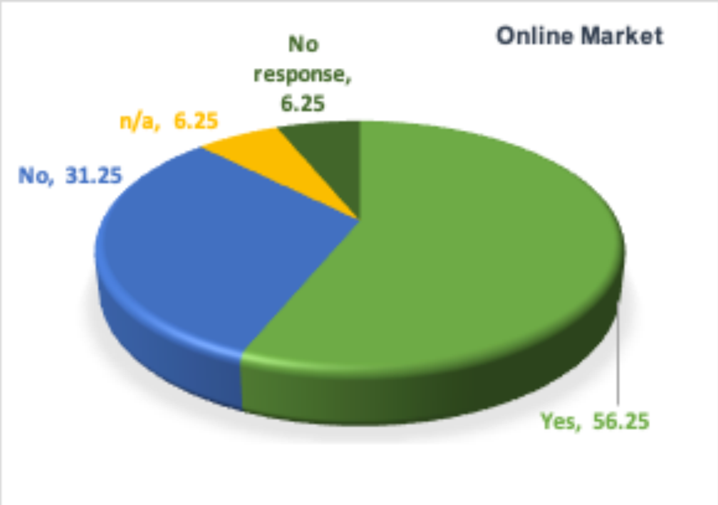
In terms of satisfaction with their transacting accounts, which is one of the proxies for cash payments: 81% of the respondents indicated that they were satisfied with the services they were getting from their business bank accounts; 94% indicated satisfaction with their personal accounts; while 94% expressed satisfaction with their mobile money accounts. The latter remained the preferred method of payment, with 60% of respondents indicating usage.

In terms of the mobile technology, 94% of the respondents reported that they were using the smartphones, while six (6%) were using basic feature phones. The availability of applications and social media on smartphones is seen to be opening up new markets for MSMEs. Customer records can be saved orders made using smart phones.

2.4 Market Access and Penetration

With regard to market access and penetration, only six (6%) of the respondents indicated that they were export oriented, with 44% of respondents' trading within their municipality of operations, 31% went further into the province, and 13% traded countrywide. Additionally, trade associations provided supporting structures to enable MSMEs to grow, access markets and legal support, with half of the respondents belonging to a trade association. Membership to such an association was also positively correlated with business maturity, with 58% of MSMEs that had been in businesses for over three (3) years belonging to a trade association. Of the businesses that had been operating for less than three years, only 25% were members of a trade association.

Some of the respondents indicated that: they used unregistered middlemen (19%) to access markets; 69% did not use unregistered middlemen; while 12% did not respond. Studies have revealed that most women use middlemen in an attempt to avoid mistreatment at most customs offices.



The majority of respondents 56%, indicated that their products could be ordered online, as shown in Figure 17. On international trade, 31% indicated that they used digital platforms to engage in cross-border trade, while 50% said they did not use digital platforms, 13% indicated that the question was not applicable. On the probability of ordering raw materials online and paying digitally, 81% of the respondents indicated they would consider doing so. However, however majority, 56% of the respondents still procured raw materials inputs locally.

Figure 17: Online Market Presence - Kenya

In terms of sales and payments, it was established that 75% MSMEs would consider trading online and receiving payments digitally. The study equally sought to understand whether MSMEs would use digital payment solutions in cross-border trade, with 63% responding in the affirmative, with either mobile payments or an equally accessible and secure digital payments platform being the preferred option.

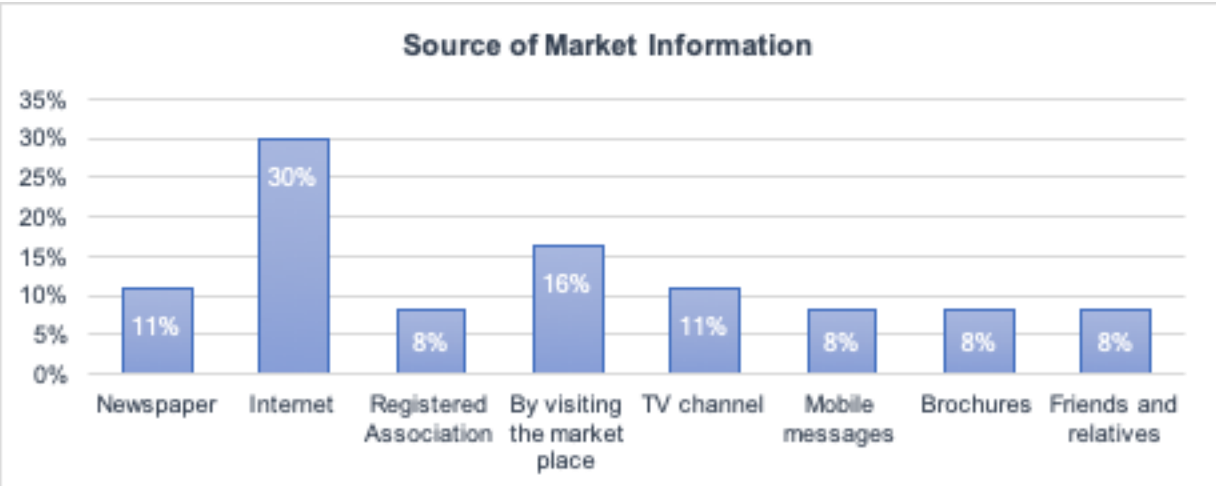


Figure18: Sources of Market Information- Kenya

The study found that the internet was the main source of information for the respondents in Kenya, with 30% of respondents using it as shown in Figure 18. To ensure that MSMEs enjoy the convenience of up to date regional market intelligence, 94% of the MSMEs indicated that they would be happy if market information was sent to their phones. Thus, this presents an opportunity to share market information with MSMEs conveniently.

Having realized the information gap, the questionnaire investigated how proficient the respondents were in basic digital skills and their training needs in order for them to be confident in the digital world and be digitally included. In response: 31% of the respondents indicated that they need basic training to enable them to appreciate the smartphone and other complementary digital platforms; 13% reported that they were above basic in terms of training needs but below advanced; while 56% indicated they would want an advanced training course to improve their business prospects through the use of digital platforms. Regarding their willingness to expand their digital skills, 81% were enthusiastic about the initiative.

On how the MSMEs felt about their own participation in the digital space, 50% were convinced that they were under-represented in the digital space, 25% thought that the number was alright, while 12.5% said they did not know, with a similar proportion not responding. Additionally, majority (88%) felt that the digital business field was one of the most important indicators of success in the 21st century economy.

The study also sought to understand how social media was viewed as a business tool: 94% of the MSMEs considered social media to be important for business; while 6% think did not consider it important.

The study went on further to establish the views of the MSMEs with regard to the cost of mobile payments: 56% of the MSMEs considered mobile payments in business to be expensive; and 25% thought they were affordable.

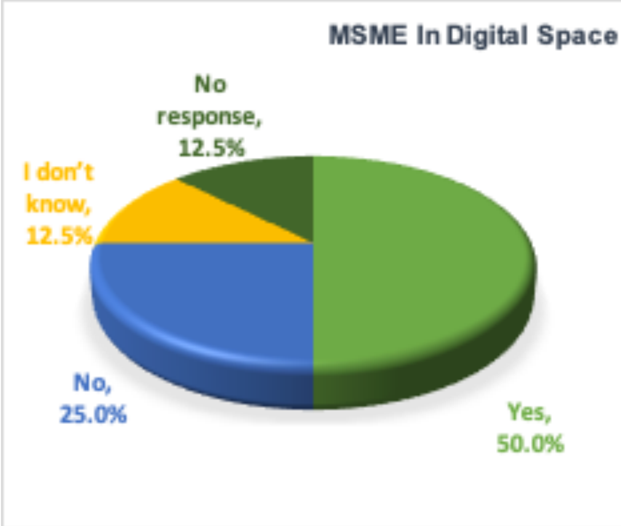


Figure 19: MSMEs in Digital Space-Kenya

Figure 20: Cost of Mobile Payments- Kenya

Concerning the Value-Added Services (VAS) that MSMEs would wish to see on their mobile payment platforms, 26% of the respondents indicated bank statements, commodity price information (21%), currency exchange rates (19%), product focus demand (15%), and credit worthiness statements (19%).

With respect to the impact of digital payments on turnover, 87.5% of the MSMEs believed that digital payments systems had the potential of improving their annual turnover, while 12.5% believed that the turnover would not be impacted at all. In the same vein, 68.75% of MSMEs were convinced that digital regional payment systems for cross-border trading would positively impact their business, while 12.5% believed there would be no impact, and another 12.5% felt the question was not applicable to their businesses.

3. STAKEHOLDER CONSULTATION MEETINGS

3.1 The Banking Sector in Kenya

Kenya's financial sector is well developed with over 40 registered banks. The market is highly concentrated with the 12 listed commercial banks owning 89% of the total assets as of 2018. The CBK and economic observers consider the industry's performance to be steadily picking up momentum, since the market shock of 2016. This was when the government introduced capped interest rates that discouraged savings, reduced private sector and MSME access to credit, and impeded the banking sector's competition, particularly reducing profitability levels of the smaller banks'[33]. Innovations such as agent banking have improved financial inclusion in rural and urban areas.

[33] https://www.globenewswire.com/news-release/2020/02/05/1980053/0/en/Kenyan-Banking-Industry-Report-2019-Featuring-Profiles-of-37-Industry-Players.html

3.2 Mobile Money

Mobile financial services have become the preferred method of accessing financial services in Kenya. There are already more than 20 digital credit services in Kenya, and new services continue to come on board.

Mobile money services include M-Pesa, M-Shwari, Airtel Money, T-Cash, Equitel Money, Mobikash and Tangaza. Out of these, M-Pesa has the bulk of the market share in terms of active subscribers, number of transactions, and value of transactions.

3.3 Ministry of Information, Communications and Telecommunication

The function of the Ministry is executed by the two State Departments as outlined in the Executive Order No.1/2016. The two State Departments are: the Department of ICT and Innovation and the Broadcasting; and Telecommunication Department.

The Department of ICT and Innovation has the following functions among many others as assigned to it by the government:

1) National ICT policy and innovation;
2) Promote e-Governance;
3) Promotion of the software development industry;
4) Promote ICT Agency (e-Government, Kenya ICT Board and Government Information Technology Services);
5) Provision of ICT technical support to Ministries, Departments and Agencies;
6) Policy on automation of Government Services;
7) Development of National Communication Capacity and Infrastructure;

There is a common fund that was created, where service providers will contribute and the government will use the funds to construct towers in rural areas to be leveraged by MNOs. Government has a policy on infrastructure sharing. This policy was developed in an effort to keep the cost of communication low and affordable.

8) Ensure Interoperability of digital finance.
9) Management of National Optic Fiber Infrastructure.

It is the duty of the department to install and commission the internet infrastructure backbone to ensure last mile connectivity. To date 47 counties are already connected through fiber. The optic fiber has assisted all government offices to be connected to high speed internet access. Through this initiative, other residents are also connected to free WIFI. MSMEs, informal traders, youth, women and students are free to use the technology to access market information. The goal of government is to ensure that all county and sub-county offices are covered by data and mobile services. Geographical network coverage of digital infrastructure now stands at 90%, and the department is targeting a 100% network coverage by 2021.

3.3.1 MSME Support

The government has various programs which are running to ensure that MSMEs and all citizens are literate and are able to use ICT Services. However, MSMEs seem to be the biggest beneficiaries as this initiative will open new businesses, new ideas and new markets for them. The programs include.

- Digital Literacy Program.
- MSME hub – the hub is aimed at providing strategic leadership and support to MSMEs towards inclusiveness and global competitiveness.
- Presidential Digital Talent Program – It is an internship program that develops the ICT talent pool in Kenya through collaboration between the public and private sectors.
- Constituency Digital Innovation Hubs - the objectives of the project are to support entrepreneurs and access to free Wi-Fi in all the 290 constituencies countrywide. It will also enhance awareness and uptake of on-line platforms for employment and business opportunities.

3.3.2 **MSME Challenges**

- Information gap – MSMEs lack the essential market or business information to assist them in trading.
- Inability to meet export standards requirements – Specifications of products for exports are not always available. Where the specifications are available, there is lack of appropriate training and technology to maintain the same quality that is needed in the export markets.
- Fear of digital contracting – over reliance on paper

3.3.3 **Regulation and Policy**

The Data Protection Act (2019) is administered under this department. The National ICT Policy 2019, Blockchain - Emerging Digital Technologies for Kenya, The Huduma Bill 2019, Kenya Digital Economy Blueprint 2019, National Broadband Strategy 2018-2023, National ICT Policy 2003, and the National ICT Policy 2016 are also administered by this department.

3.4 **Ministry of Finance – The National Treasury**

The National Treasury derives its mandate from the Constitution 2010, the Public Finance Management Act 2012, and the Executive Order No.2/2013.

The core functions of the National Treasury are to:

- Formulate, implement, and monitor macro-economic policies involving expenditure and revenue;
- Formulate, evaluate, and promote economic and financial policies that facilitate social and economic development in conjunction with other national government entities;
- Mobilize domestic and external resources for financing national and county government budgetary requirements;
- Design and prescribe an efficient financial management system for the national and county governments, to ensure transparent financial management and standard financial reporting;
- Strengthen financial and fiscal relations between the national government and county governments, and encourage support for county governments;
- Assist county governments to develop their capacity for efficient, effective, and transparent financial management;
- To prepare the National Budget, execute/implement and control approved budgetary resources to Ministries Departments Agencies and other Government entities.[34]

It was observed that for any payments system to be effective, they should start nationally and then expand to the regional level.

With regard to regional payments, the following aspects were recommended:

- Use of netting system to reduce demand for foreign currency;
- the harmonization of regulations across countries;
- A prefunded model in regional transfers may be ideal given the different political and economic environments;
- There is a need to harmonize policies that support AML and CFT in the region in an effort to minimize cross-border importation of these risks.

3.4.1 **Treasury Vision 2030**

Vision 2030 is the country's development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrialized nation by the year 2030. The target is as follows; "middle-income country providing a high-quality life to all its citizens by the year 2030". The Vision is based on three pillars namely, economic, social and political[35].

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34 https://www.treasury.go.ke/aboutus/background-information.html
35 http://e-promis.treasury.go.ke/portal/development-strategy/vision-2030/

The following developments were noted:

- The GDP growth rate is targeted at 10% per annum and MSMEs are viewed to be critical in achieving this target;
- Most government payments are now digital;
- E-citizen platform is now up and running;
- Kenya Revenue Authority (KRA) collections are now digital, and this has significantly improved collections.

3.4.2 Risk

The following risks were identified upon developing the regional payments system:

- Payment risks
- Legal & regulation risk
- Credit risk
- Settlement risk
- Liquidity risk
- Operational risk
- Recourse and reversal

3.4.3 Challenges

The biggest challenge to a regional payment system is centered on the question below:

"At what stage will Central Banks allow non-banks to participate in a clearing/national payments system: can an MNO be allowed to participate in clearing?"

The general feeling was that if Central Banks can allow non-bank participants, then the regional payments can improve, since players in the mobile money industry will be participating on their own and not through partner banks. It should be noted that using partner banks has the adverse effect of increasing costs to the MSMEs.

3.4.4 Existing legal framework[36]

The following regulatory and guiding instruments are in existence:

- Constitution of Kenya 2010;
- Public Finance Management Act 2012;
- Executive Order No.2/2013;
- Public Financial Management Reforms Program's Dissemination Notes;
- Public Finance Management Regulations;
- Procurement and Asset Disposal; and
- Proceeds of Crime and Anti-Money Laundering.

3.5 Communication Authority of Kenya

The Communications Authority of Kenya (CA) is the regulatory authority for the communications sector in Kenya. It was established in 1999 by the Kenya Information and Communications Act, 1998. The Authority is responsible for facilitating the development of the information and communications sectors including; broadcasting, cyber security, multimedia, telecommunications, electronic commerce, and postal and courier services.

The major responsibilities of the CA include:

- Licensing all systems and services in the communications industry, including, telecommunications, postal, courier and broadcasting;
- Facilitating the development and management of a national cyber security framework;
- Facilitating the development of e-commerce;
- Protecting consumer rights within the communications environment;

[36] https://www.treasury.go.ke/publications/regulations.html

- Managing competition within the sector to ensure a level playing ground for all players;
- Regulating retail and wholesale tariffs for communication services;
- Managing the universal access fund to facilitate access to communications services by all Kenyans; and
- Monitoring the activities of licensees to enforce compliance with the license terms and conditions, as well as the law.[37]

The Authority pointed out that regulation of mobile money is mainly done by the CBK. It was further noted that since the facility is based on SIM cards, there is a Mou between the CBK and CA.

3.5.1 Mobile Network Coverage

The mobile network coverage was standing at 96% (in terms of population) by the time of the meeting. The table following shows the technology breakdown in terms of population and geographical network coverage.

Technology	Population (%)	Geographical (%)
2G	96	45
3G	93	17
4G	59	-

Table 25: Mobile Network Coverage

3.5.2 Risks

The Authority identified the following risks which may result in MSMEs losing money:

- Fraudulent SIM card replacements
- Phishing
- Mobile Number Portability was once a challenge, but it was resolved after the authority liaised with the MNOs.
- Mobile money registration should correspond with mobile network registration. This significantly reduces mobile money fraud and SIM card replacement frauds.

3.5.3 Universal fund

It is the duty of the Authority to manage the universal fund. Below are some of the areas where the funds have been used:

- Additional locations for network coverage in non-priority areas;
- Consumer awareness and education;
- Broadband provision of education in partnership with Ministry of Education in all secondary schools;
- Public library tele-centres; and
- MSMEs are already using technology in public tele-centres.

3.5.4 e-Commerce

A committee was set up to look at e-commerce. It is mandated to focus on delivery and trust issues around digital platforms among other roles. There is a bigger committee that falls under another ministry.

3.5.5 Existing legal frameworks

- Kenya Information and Communications Act, 1998
- Articles 33 and 34 of the Constitution
- Kenya Information and Communications (Amendment) Act, 2013
- Consumer Protection Regulations, 2010
- Dispute Resolution Regulations, 2010
- Fair Competition and Equality of Treatment Regulations, 2010
- Numbering Regulations, 2010

[37] https://ca.go.ke/about-us/who-we-are/what-we-do/

- Tariff Regulations, 2010
- Universal Access and Services Regulations, 2010

3.6 Central Bank of Kenya

The CBK is responsible for formulating monetary policy to achieve and maintain price stability. it also formulates and implements such policies to promote: financial stability; an effective and efficient payment, clearing and settlement system; formulation and implementation of foreign exchange policies; holding and management of foreign exchange reserves; issuance of currency; and is the banker for, adviser to and fiscal agent of the Government.[38]

3.6.1 National Payment System

The NPSs are the conduits through which buyers and sellers of products and services make transactions and are an important component of a country's financial system. In Kenya, participants comprise of the CBK, the Government, commercial banks, and PSPs. The National Payment Systems in Kenya are classified into two categories namely: Large Value (Wholesale); and Low Value (Retail) Payment Systems. The classification is based on the throughput in terms of values and volumes that are processed.[39]

Wholesale payments stakeholders include:

- Kenya Electronic Payment and Settlement System (KEPSS)
- Regional Payment Systems
  - East African Payment System (EAPS)
  - Regional Payment and Settlement System (REPSS)

Retail / Low Value Payment Systems include:

- Nairobi Automated Clearing House
- Payments Card Industry
- Mobile Phone Money Transfer Services

3.6.2 National Switch

The major issues that were discussed included the need for all countries to have national switches. These national switches will be integrated with the regional payment switch. The bank team also shared their experience with the EAC Payment System.

3.6.3 Derived challenges

- Trade in the region is growing, but the existing regional payment channels are not yet fully embraced by customers.

3.6.4 MSME Support

- MSMEs need training on DFI.
- Linkages between MSMEs and financial service providers are weak.
- Financial services providers do not have appropriate products that are tailor -made for MSMEs.

3.6.5 Recommendations

- Open loop regional switch whereby each country's authorized online PSPs can connect.
- In an effort to achieve operational excellence, the platform should be driven by the private sector, or private sector councils, with The CBK coming in as an oversight institution.
- Each country should have a mandatory national switch.

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[38] https://www.centralbank.go.ke/
[39] https://www.centralbank.go.ke/national-payments-system/

3.6.6 Existing legal Framework[40]

- Constitution of Kenya 2010
- Central Bank of Kenya Act (2015)
- Banking Act (2015)
- Microfinance Act (2006)
- The National Payment System Act (2011)
- Kenya Deposit Insurance Act 2012

3.7 Central Bank of Kenya Side Meeting

The CBK indicated that they have an interest in MSME development in Kenya, as this drives innovation, contributes to employment, and stimulates GDP growth.

MSMEs are a global phenomenon, and they need support for them to be sustainable. An example of the important role that MSMEs play in the German economy was given. While it is acknowledged that one of the problems facing MSMEs is that of access to finance, in Kenya, the next biggest challenge is how they are treated by financial service providers. It was noted that branch location in terms of distance, branch setup, and branch staff, could result in the formal financial exclusion for MSMEs.

3.7.1 Key Highlights

- There are about seven (7) million MSMEs in Kenya;
- MSMEs are considered to be important in the country's economic well-being, and their digital inclusion is critical to the development of the economy;
- The uniqueness of countries in Africa should be respected when considering the DFI;
- In 2007, access to DFSs was 26%, which rose to 83% in 2019;
- The key challenge is with regard to the use of digital channels and products that are available. There is need to investigate their relevance to MSMEs.

3.7.2 MSME challenges

- The CBK advised that CBC should come up with initiatives on training and reorienting DFS providers, to serve the MSMEs in their comfort zones.
- Meeting export standards
- Only 5.6% of MSMEs accessed loans from formal financial institutions.

3.7.3 Recommendations

- Training of MSMEs.
- Start with intra-country DFI initiative, followed by trade.
- Quality of production is a major concern for MSMEs - training on standards in order to ensure that they meet the export requirements is critical.
- There is need for an MSME platform that rates suppliers and adds reviews.

3.8 Integrated Payments Service Limited (IPSL) - Pesa Link

The IPSL was established by the Kenya Bankers Association (KBA) under the National Payment System (NPS) Act. It was formed to address the challenge of integrating retail payments, and to provide a secure, fast and efficient money transfer system by tapping into the latest technological advances in the country. The inter-banking money transfer service, allows customers to send money from one bank account to another in real time, through the banks' retail payment channels including, mobile, ATM, internet banking, agency, bank branches and POS. Pesa Link aims at creating value for the industry, banks and customers through innovation and interoperability[41].

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[40] https://www.centralbank.go.ke/policy-procedures/legislation-and-guidelines/

[41] https://www.ipsl.co.ke/about-us

It was noted that IPSL is owned by a total of 42 banks, and 30 banks are already live on the system. Mobile Money transfer giant M-Pesa is not yet on Pesa Link.

The services offered by Pesa Link include:

- E-commerce Solutions - to enable merchants to collect real time payments made into their respective bank accounts
- Government Payments - these include:
  - E-Citizen – used to access government services
  - M-Akiba - a good way of saving money through government bonds
- Bulk Payments

It was indicated that their system has capacity to handle regional transactions, and it is interoperable.

3.9 Bayer

Bayer is an agricultural company that applies innovation and technology to help farmers around the world produce more, while conserving more. Their goal is to help farmers grow their yield sustainably, so that they can be successful, produce healthier foods, better animal feed and more fiber, while reducing the impact of agriculture on the environment[42].

One of their biggest challenge they face is that of delayed payments from customers including the governments.

Bayer Smallholder Farming division regularly meets with farmers, to enable them fully understand their needs, and ensure they are getting the resources and trainings they need, for turning their farms into successful businesses. Bayer aims to empower smallholder farmers through innovative and collaborative partnerships that expand agricultural know-how to address most challenging issues.

3.10 Kenya Association of Manufacturers (KAM)

Kenya Association of Manufacturers (KAM) is the representative organization for manufacturing and value-add industries in Kenya. KAM provides an essential link for co-operation, dialogue and understanding with the Government, by representing the views and concerns of its members to the relevant authorities.[43]

The Association believes that MSMEs are the backbone of the economy, and they have programs that are aimed at assisting them. KAM plays a crucial role in advocating the government to create a conducive environment for entrepreneurship and MSME development, in order to secure the future of industry. It has set out to provide strategic leadership in supporting manufacturing SMEs, towards inclusive global competitiveness.[44]

It was highlighted that KAM has launched the following programs to assist MSMEs:

- The MSME hub - the goal of the hub is to address the challenges affecting SMEs, mainly focusing on policy and regulatory issues. It also addresses issues to do with poor governance structures, and access to markets and affordable finance.
- The Business Growth Program

The interventions used by KAM to assist MSMEs include:

- Product development support;
- Facilitation of access to markets;
- Facilitation of access to affordable finance;
- Facilitation of access to technology; and
- Facilitation of procurement opportunities

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[42] http://www.Bayerafrica.com/default.asp

[43] http://kam.co.ke/about-kam/

[44] http://kam.co.ke/about-kam/

3.11 Coca Cola

Coca Cola Beverage Africa (CCBA) is the largest beverage firm in Africa serving 13 countries, including Zambia, Uganda, Kenya, Ethiopia, Eswatini, Tanzania, South Africa, Ghana, Mozambique, Namibia, Mayotte, Comoros and Botswana.

Their goal is to build a strong business that can be achieved through the support and long-term prosperity of their customers. Coca Cola believes that a more successful system will create greater shared value for the business, including the communities they serve across the value chain through job creation, skills development, and support to MSMEs.

Currently, Coca Cola Kenya indirectly employs 10,000 people. It has lined up programs for women and youth, including training more specifically on business starter skills. They are involved in local sourcing, especially for mangoes. In view of this development, they deal with middle-men and not directly with farmers.

4. PAYMENT INFRASTRUCTURE LANDSCAPE

The Central Bank of Kenya's 2018 Financial Sector Stability Report 2018 alludes to the evolution of payment systems in the country, against the backdrop of innovations in FinTechs, and the entrance of TechFins that support electronic-based payment systems. These innovations have accelerated financial inclusion, reduced cost of transaction and handling of cash in the economy, as well as reducing the velocity of money, thus reducing inflation as people start saving on their mobile phones instead of spending.

The key aspects of the payment landscape in Kenya are highlighted below:

		Cross Border Implications
Payment Type	Cheques Cards Wire transfer	
Sender	Banks RTGS EFT MNOs Money Transfer Operator (MTOs)	
Aggregator	PESALink Interswitch Kenswitch Cellulant	Charge a fee of KES 40 (USD$ 0.40) for processing an ATM transaction.
Clearing	Nairobi Clearing House	
Receiver	Banks MNOs Utilities Agents	
Settlement	KEPSS CBK Correspondent Cellulant EAPS REPSS	

Table 26: Payment landscape in Kenya

4.1 **Pricing Structure for Cross Border Mobile Payments**

The MNOs such as Airtel and Equitel provide mobile money services that allow customers to transact over their mobile phones, without the need of a bank account. Customers can store, send and receive money on their mobile phones. Different functionalities are available, such as Person to Person (P2P), Bank to Wallet (B2W), and Wallet to Bank (W2B), person to business (P2B), business to person (B2P), bulk payments, and Micro and nano loans.

With regard to pricing, transaction fees are based on the amount of funds being transferred as indicated below:

	MPESA	Airtel Money	Equitel
Description	Mobile money service allows storing, sending, and receiving funds via a mobile device.	Mobile money service allows storing, sending, and receiving funds via a mobile device.	Mobile banking service operated under Mobile Virtual Network Operator (MVNO) license.
Cross Border Pricing Structure	Based on transaction size[45] Max fee of $1 for up to $50 send Max fee of $5 for up to $700	Based on transaction size[46] Max fee of $8.80 for up to $10 send Max fee of $570 for up to $49,000	Available in Kenya only. Cross border transactions are done via Equity bank
Coverage	Rwanda, Tanzania & Uganda Global to bank accounts & Western Union Paypal	Uganda, Tanzania and Rwanda	Kenya

Table 27: Pricing Structure Kenya

5. POLICY AND REGULATORY FRAMEWORK

Kenya has a robust policy and legislative framework for making digital payments. In addition, these are aligned to international best practices, such as the International Organization of Standards (ISO) - ISO 20022, which is the ISO standard for electronic data interchange between financial institutions. It is also affiliated to the Financial Action Task Force (FATF) which provides guidance for a risk-based approach - prepaid cards, mobile payments and internet-based payment. Over and above this, the country recently passed into law the Data Protection Act (2019), which complies with the European Union legal standards, as it looks to bolster investment in its information technology sector[47]. The new law sets out restrictions on how personally identifiable data obtained by firms and government entities can be handled, stored and shared.

[45] https://www.safaricom.co.ke/personal/m-pesa/getting-started/m-pesa-rates

[46] https://www.airtel.co.ug/airtelmoney/transaction_fees

[47]https://www.reuters.com/article/us-kenya-dataprotection/kenya-passes-data-protection-law-crucial-for-tech-investments-idUSKBN1X-I1O1

Policy/Regulation/Directive		Key Issues
Central Bank of Kenya Act (2015)		Formulate and implement policies that best promote the establishment, regulation and supervision of efficient and effective payment, clearing and settlement systems
		Designation of high value Systemically Important Payment Systems (SIPS) and payment instruments (Sections 3 and 6)
		Finality of payments through a designated system (Section 9 and BIS Principle VIII)
		Recognition that rights contained in netting rules and agreements with regard to insolvency, supersede the rights of statutory managers in specified statutes (S.16)
		Authorization of payment service providers. (Section 12 and 13).
Banking Act (enacted 1991, amended through 2014)		Regulating the activities of banking institutions within the financial sector in Kenya, which is critical to managing trust accounts
The National Payment System Act (2011)		The National Payment Systems (NPS) Act divides the different possible market participants in the following areas:
	1	Electronic Retail payment service provider - applies to all electronic retail transfers (excluding Banks, Microfinance Institutions), utilizing an electronic payment system and includes mobile PSPs (mobile money)
	2	Designated Payment System or a Payment Instrument - This Part applies to all issuers of payment instruments that qualify to be designated.
	3	E-Money Issuer - "an entity that issues monetary value, which can be exchanged for cash and accepted by parties other than the issuer."
	4	Small E-Money issuer
National Payment System Regulations, 2014		The NPS Regulations provide certain requirements that are key to safeguarding the interests of the customer: Consumer Protection
	Reg 38	**Customer Care Service** - This provides a service where customers can make inquiries and complaints concerning its services.
	Reg 40	**Resolution of Complaints** - All complaints from users should be resolved within 30-day time frame.
	Reg 41	**Customer Service Agreements** - Providers of the service are required to sign a customer service agreement with each user that meets a set minimum threshold.
Kenya Information and Communication (Amendment) Act, 2013		Provides the legal recognition to electronic transactions. It also deals with the following
	1	Promoting public confidence in the integrity and reliability of electronic records and transactions;
	2	Foster the development of electronic commerce through the use of electronic signatures to, lend authenticity and integrity to correspondence in any electronic medium
	3	Develop sound frameworks to minimize the incidence of forged electronic records, and fraud in electronic commerce and other electronic transactions (Cyber Crimes)
Consumer Protection Act (2012)		An ACT of Parliament to provide for the protection of the consumer, prevent unfair trade practices in consumer transactions, and to provide for matters connected with and incidental thereto.
Proceeds of Crime Act and Anti-Money laundering Act, 2012		CBK continuously strengthens the AML/CFT risk assessment frameworks to address risk associated with rapid adoption of financial technology and innovations
The Money Remittance Regulations 2013		Mobile operators can be licensed under the Money Remittance Regulations (2013) to provide international remittance services

6. PICTORIAL FOCUS

Traders in the local market

DFI Training for youth in Nairobi-Kenya

African print attire in one of the SME stalls

Mobile Money dealers in Kenya-Tanzania border

Figure 21: Pictorial focus - Kenya

APPENDIX 3: TANZANIA

1. Macro-economic Overview

As at 2018, Tanzania had an estimated GDP of $495 million and per capita GDP of $1,075[48] (BoT, 2019). The economy continues performing well, and is among the fastest growing economies in Sub-Saharan Africa. The country's GDP growth rate stands at 6.9%, which has been bolstered by scaling up of public investment and steady private sector activity and stable consumption expenditure and export growth. Tanzania's main drivers of growth are: construction; agriculture; and transport activities (BoT, 2020). The population stands at 59,734,218 (UN, 2020).

		
• Mature mobile payments market (55%) • Mobile penetration is more than 90% • Internet penetration at 25% (2017)	• Limited access to traditional banking methods i.e. cards & bank accounts • Formal bank accounts at nine (9%)	• Median age of 18; an entire generation has grown up with mobile payments

Table 29: Key Statistics- Tanzania

The BoT has continued spearheading and encouraging innovations in the payment systems instruments and utilization of interoperability capability in mobile money services. As a result, , the number of active registered accounts for mobile money stood at 24.4 million for the year ended December 2019, compared with 23.3 million in the corresponding period in 2018. This growth was partly driven by interoperability of the mobile financial services (BoT, 2020).

2. Observations from MSMEs in Tanzania

2.1 The MSMEs Profile

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business. This is useful in understanding the entrepreneurial densities across these classes. A total of 31 entrepreneurs were involved in this study in Tanzania.

2.2 Demographic Profile

With regard to gender, 94 percent of respondents in Tanzania were female as indicated in Figure 10, with 93 percent of the female respondents considering themselves as entrepreneurial, albeit with small businesses they were involved in i.e. micro-entrepreneurs. About 26 percent of the respondents were under the age of 35, with the bulk of respondents, 74% being adults, i.e. over 35 years of age. Similarly, 48 percent of the female respondents had tertiary education (Figure 11). An explanatory factor for the higher proportion of female business owners in the micro- level enterprises could be attributed to fact that the bulk of women have lower educational attainments and hence lower formal employment prospects.

Analyzing the gender matrix amongst Tanzanian respondents, 38% of female entrepreneurs were more likely to be involved in agriculture, 34% in retail and wholesale, and 14% in others - mainly services industry. Additionally seven (7%) of the respondents considered themselves to be cross-border traders, while four (4%) were in construction – an industry that was previously believed to be male only, another three (3) percent of the women decided not to respond. A majority of the respondents (90%) were primarily urban based.

[48] https://www.bot.go.tz/Publications/EconomicAndOperationsAnnualReports/ANNUAL%20REPORT%202018-19%20SIGNED.pdf

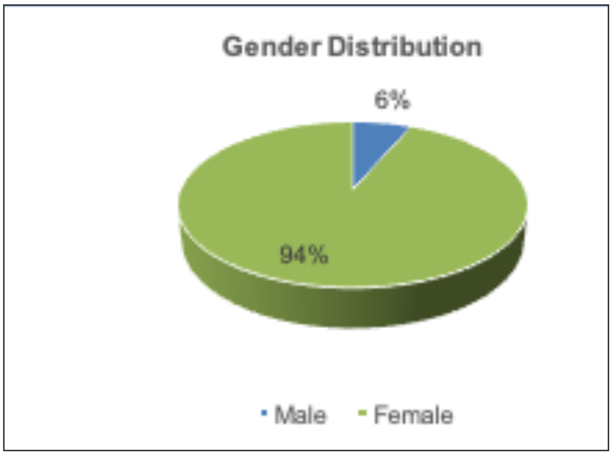

Figure 22: Gender Distribution Tanzania

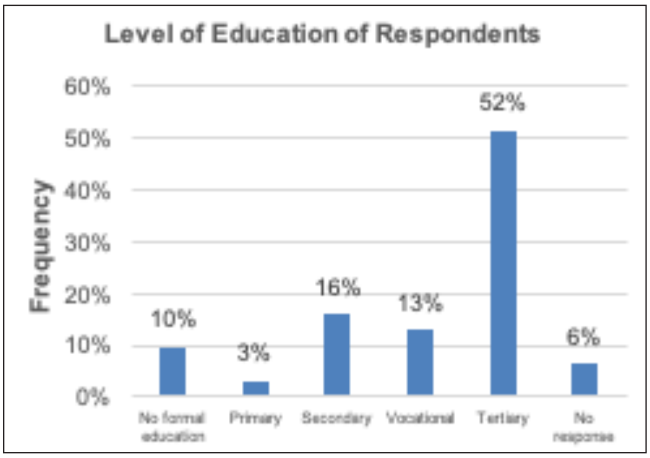

Figure 23: Level of Education Tanzania

2.3 Trade Facilitation and Ecommerce

In financing their businesses, the respondents indicated a strong reliance on family and friends (42 percent) as well as own savings (36 percent) as shown in figure 12. Furthermore, the study revealed that 81% of the respondents had transacting accounts.

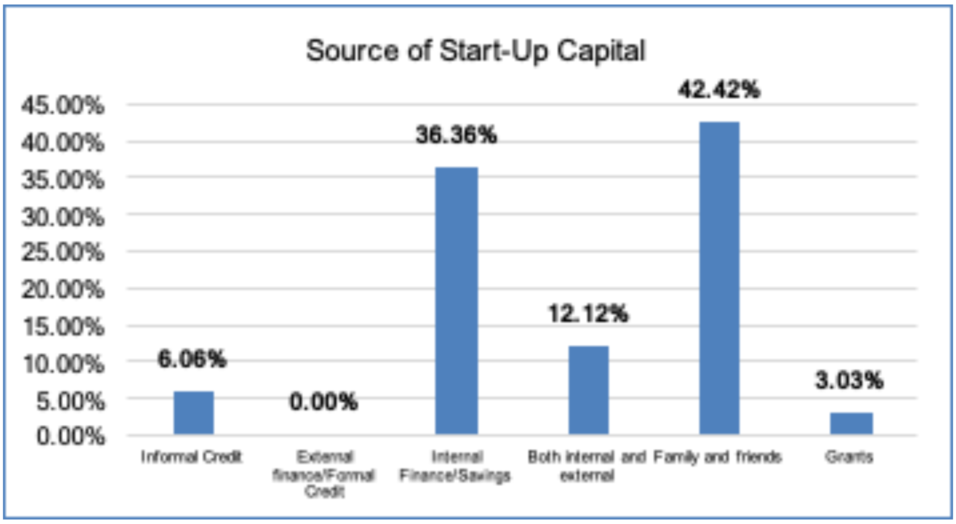

Figure 24: Sources of Funding Tanzania

In terms of satisfaction with their transacting accounts, at least 71% of the respondents were happy with their transactional account, although mobile money was the most preferred payment method.

It was established that distance between the MSME owners and the nearest financial services center, be it a mobile money agent or bank branch, affects businesses, as it could increase the cost of accessing financial services. In a bid to access financial services, 48% of the MSMEs travelled less than a kilometer to be served, while 39% travelled between 1 - 5kms to get financial services.

In terms of the mobile technology, 97% of the respondents were using the smartphone, while three (3%) were using the basic/feature phone. With regard to local trade, 55% of the respondents' preferred immediate payment, as compared to 23% who were involved in international trade.

2.4 Market Penetration and Access

Only seven (7%) of the respondents indicated that they were export oriented, with 42% trading within their municipality of operations, 19% going further into the province, while 32 % traded countrywide. The study shows that 87% of the respondents were members of a trade association. The study found that these associations were considered useful for enabling accessing both local and foreign markets. Notwithstanding, it was also observed that 61%of the respondents made use of unregistered middlemen to access markets.

The majority of the respondents (84 %) indicated that orders could be placed for their products online. International trade through digital platforms was relatively low, with only 32% of respondents using such platforms for cross-border trade. On the probability of ordering inputs online and paying digitally, 81% indicated that they would consider doing so, despite the fact that a majority (58%) of the MSMEs bought inputs locally. With regard to digital trade, 94% reported that they would consider selling and receiving payments digitally, while six (6%) indicated that they would need more information before they could make a decision.

The study equally sought to understand whether MSMEs would use digital payment solutions in cross-border trade, to which 68% of the respondents affirmed that they would most likely use mobile payment solution in conducting cross-border trade, 10% responded in the negative, while 19% were not sure. Out of those that were most likely to use mobile payments, 33% of them indicated they would use mobile payments because they thought it was convenient to do so.

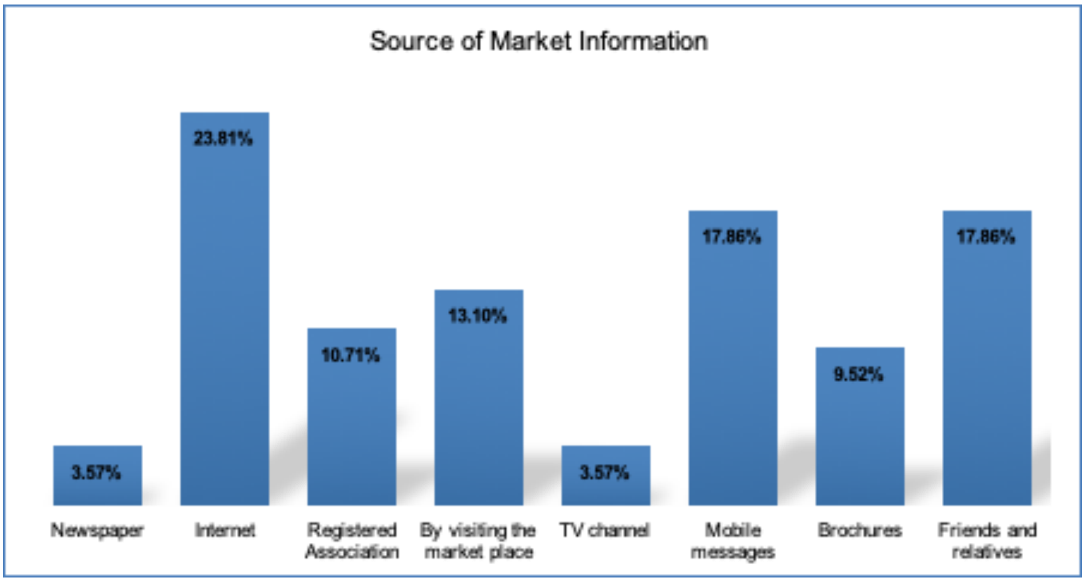

Figure 25: Sources of Market Information Tanzania

With regard to their sources of information, 24% of the respondents got their market information from the internet, while 18% reported that they got their information through mobile channels as well as friends and relatives each. To ensure that they were getting the correct information, 87% of the MSMEs indicated that they would be happy if the market information was sent to their phones.

As concerns the digital platforms and training needs, 26% of respondents indicated that they needed the basic training course so that they can appreciate the smartphone and digital platforms, 32% reported that they were above basic training in terms of training needs but below advanced, while 42% indicated that they would benefit from an advanced training course to improve their business using digital platforms. Regarding their willingness to expand their digital skills, 87% where enthusiastic about the initiative.

On participation in the digital space, 61% of respondents indicated that MSMEs were underrepresented in the digital space, 13% thought that the number was okay, and another 13% said they did not know, with a similar proportion not responding. The majority of respondents, 87%, considered the digital business field as one of the most important indicators of success in the 21st century economy.

The study also sought to understand how social media is viewed as a business tool, with 97% of the respondents affirming that social media was an important vehicle for

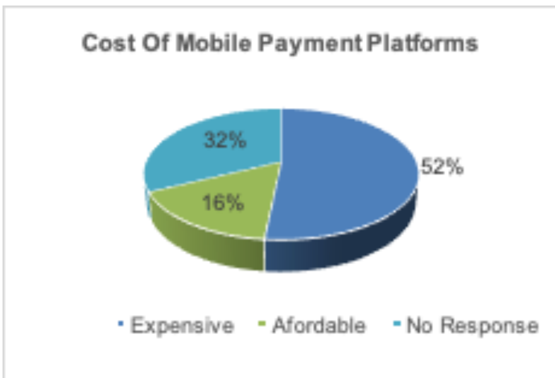

Figure 26: Cost of Mobile Payment Platforms: Tanzania

trade and another three (3%) responding in the negative. Figure 26 shows that 52% of the MSMEs considered mobile payments in business to be expensive, 16 percent were of the opinion that they were affordable, while 32 percent decided not to respond. It was further established that bank statements (28%) and product focus demand (24%) were the important Value-Added Services (VAS) that respondents would want to see on their mobile platforms. On the impact of digital payments on turnover, 90% of the respondents believed that the digital payments systems had the potential to improving their annual turnover, while three (3%) did not know whether how they would impact their businesses. In the same vein, 77% of respondents were convinced that regional payment systems for cross-border trading was positively impacting their business, three (3%) thought their business would be impacted negatively, while 13% believed there would be no impact.

3. Stakeholder Consultation Meetings

As a preamble, it should be noted that during the past three (3) years, the financial sector in Tanzania grew at an average of 13% in terms of assets. The supportive legal and regulatory framework, conducive macro-economic environment and innovation in digital finance platforms contributed to this growth. The sector is dominated by the banking sub-sector, which contributes about 70% of the total assets, while insurance, pensions and securities account for the remaining 30%.

The sector comprises of regulated and non-regulated players. The microfinance sub sector is mostly unregulated, yet it has set out to serve most vulnerable groups, such as low-income and rural populations. Efforts are currently underway to develop a legal and regulatory framework for the currently unregulated segments of the microfinance subsector.

3.1 *Ministry of Finance and Planning*

The role of Ministry of Finance and Planning in Tanzania is to promote sustainable and shared economic growth and macro-economic stability, through developing robust social-economic policies, prudent financial management, enhancing professionalism and optimal use of ICT which is well aligned with the DFI Agenda.

A meeting was held with the Financial Sector Development department which is responsible for DFI matters. The department was instituted to provide services and expertise in financial sector development, for broadening household level access to financial services and firms, towards ensuring sustainable economic growth and poverty reduction. Access to finance is one of the common problems facing the MSMEs.

In addition to the above highlighted roles, they are also responsible for the following macro-finance issues:

- Undertake research on macro-finance farmers;
- Financial literacy and development;
- Monitor and evaluate financial sector reforms; and
- Promote access/affordability and reliability with support for economic growth

The following regulatory and guiding instruments are in existence[49]

- Implementation strategy for the National Development Plan 2016/17-2020/21 Volume I- The Action Plans April, 2018 (Annex 1)
- Implementation strategy for the National Development Plan 2016/17-2020/21 Volume II- Financing Strategy April,2018 (Annex 2)
- Implementation strategy for the National Development Plan 2016/17-2020/21 Volume III- Monitoring and Evaluation Strategy April,2018 (Annex 3)
- Implementation strategy for the National Development Plan 2016/17-2020/21 Volume IV-Communication strategy April,2018 (Annex 4)
- National Development Vision 2025 (Annex 5)

[49] https://www.mof.go.tz

In conclusion, it was noted that the driving force behind the realization of Tanzanians vision are as follows:

- Developmental mindset and empowering culture
- Competence and competitiveness
- Good governance and the rule of law

3.2 *Bank of Tanzania (BoT) – National Payment Systems (NPS)*

The primary objective of the bank is to formulate, define and implement monetary policy that is directed toward the economic objective of maintaining domestic price stability, which is conducive to a balanced and sustainable growth of Tanzania's national economy.

The NPS is defined as a group of institutions and a set of instruments and procedures, used to ensure the circulation of money within a country. The NPS supports the full spectrum of financial activities, right from Tanzanian businesses transacting globally in the international markets, to servicing of the individual payment requirements of the Tanzanian populace.

(a) NPS Stakeholders

NPS stakeholders for the whole payment ecosystem are highlighted below:

- The BoT is the monetary authority in Tanzania. It fulfils a pivotal role in the economy and specifically in the NPS.
- Financial Institutions such as commercial banks and other registered financial institutions, under the BOT act
- Infrastructure Providers e.g. Telecommunication companies.
- The PSPs e.g. Swift, Card Operators.
- Payment System End-Users: e.g. Individuals, corporate businesses and government.
- Regulatory authorities e.g. Dar es Salaam Stock Exchange (DSE) and Capital Markets Authority Government.
- Regional Monetary Authorities and Regional Arrangements e.g. the EAC.
- International Monetary Authorities such as International Monetary Fund (IMF) and World Bank.

(b) Existing Policy framework[50]

The following regulatory and guiding instruments are in existence

- The National Payment Systems Act, 2015 (Annex 6)
- Tanzania Automated Clearing House (TACH) Rules 2016 (Annex 7)
- Tanzania Interbank Settlement System (TISS) Rules and Regulations (Annex 8)
- The Payment Systems Licensing and Approval Regulations 2015 (Annex 9)
- The Electronic money Regulations 2015 (Annex 10)

Mobile money is regulated by the Central Bank under a MoU between BoT and Tanzania Communications Regulatory Authority (TCRA). Mobile Money companies holding application services license were allowed to offer mobile financial services after getting a no objection letter from the BoT. However, the bank is now working on proper licensing of the companies.

Banks get licenses for the payments systems by default, and the rest of the industry players who may want to participate in the payments systems need to apply directly to the Central Bank.

The MNOs who wish to participate in the payment systems have to create new companies, open trust accounts with the banks, and partner with the bank before a licenses can be issued. The Central Bank prioritizes the financial access to MSMEs, and they are happy with the developments that have been registered to date. The bank indicated that in 2017, about 79.9% of the MSMEs had access to banking and non-banking financial services, up from 73% in 2013, a growth that was driven by mobile money technology. Financial access to

[50] https://www.bot.go.tz/

smallholder farmers increased from 14% in 2009, and 41% in 2013, to 59.8% in 2017. This suggested that the rural population whose main source of income is farming, is progressively transforming from using rudimentary means of payment, transfer and saving money, to sophisticated digital means.

(c) Existing Digital Infrastructure and Cross-border payments

Bilateral agreements between companies such as Vodacom Tanzania, Safaricom Kenya and Tigo Pesa across the EAC are allowed to execute mobile money transfers. Outside EAC, outward transactions are not allowed on mobile money platform which presents a policy challenge. There is no use of a national switch in such transactions, but companies use bilateral arrangements on the settlement and rates.

The users (cross -border trader and general remitters) have urged the Central Bank to either regulate charges on such transfers, or come up with an alternative inclusive solution, since bilateral arrangements are considered expensive by the users.

The BoT is already working with the Bill and Melinda Gates Foundation to come up with a regional and local switch aimed at making transactions cheaper.

3.3 *Information and Communication Technologies (ICT) Commission*

The ICT Commission was established by the Presidential Decree, published in November, 2015.

The Mandate of the commission is centered on the following four pillars:

- ICT Promotion;
- ICT Policy Research and Advice;
- ICT Projects Investment; and
- Registration and Promotion of ICT Professionals and Standard.

The commission has the role of coordinating and facilitating implementation of national ICT initiatives countrywide. As a government institution, it provides foresight on trends and opportunities in digital innovations.

In terms of Strategic objectives, they are categorized into four main areas namely

a) ICT market development

Digital inclusion is the main aim under this strategic objective. The key agenda is to make the most of the economic benefit created by the spread of digital ecosystem. Digital platforms create opportunities in all sectors of the economy and also in terms of the value chain activities that are required in the provision of ICT services. This strategic objective focuses on improving innovation and entrepreneurship in the ICT industry, attract and manage ICT project investments, and assume the leading role of coordinating the ICT sector in Tanzania.

b) ICT infrastructure and security

The focus of this strategic objective is to create an ICT infrastructure, friendly environment, and protect national ICT systems with a leading-edge cyber security strategy. It is aimed at enhancing the ease of doing business in the digital space. It is also important to note that investors in switches, fintech and digital trade are assisted through a one-stop shop model.

ICT certification and standards

In respect to certification and standards, the Commission acts as an adviser on policy issues related to the ICT sector in Tanzania. ICT cuts across all the sectors of the economy and the Commission advises all ministries on this aspect. The Commission provides expertise in coordinating policy implementation, monitoring and evaluation, periodic review of the policy strategies, and awareness creation and guidelines. The strategic objective is to have an ICT profession that is structured and recognized by the market and, promote use of standard and compatible ICT systems and solutions.

c) Capacity building and human capital

The Commission aims to support the development of ICT human capital which needs to be addressed for full exploitation of benefits of the ICT sector. It does this by recognizing ICT professionals, providing appropriate ICT skills, and training to obtain a competent human resources base to accelerate Tanzania's socio-economic development efforts in the information age. This strategic objective is aimed at adopting best practices in organization management, transform the Commission, an ICT Body of Knowledge and a Reference Centre, and develop ICT skills and leadership capacity in the sector.

Existing Policy framework

The following regulatory and guiding instruments are in existence:

- National ICT Policy 2016 (Annex 11)
- National ICT Policy 2003 (Annex 12)
- Presidential Decree Government Notice (GN) No. 532 published in the §Government Gazette No. 47 Vol. 96 dated 20th November 2015
- Universal Communications Service Access Fund (UCSAF) Act 2006, UCSAF Regulations (Annex 13)
- Circulars

Universal Communications Service Access Fund (UCSAF)

Communication is a basic human right, and the Government of Tanzania is making sure that communication as a universal right is accessible to its entire population. The rural citizens are often left out when communication infrastructure development is left to private sector players.

While it is the responsibility of private entities to provide communication services, the Government came to realize that not all areas in the country could be economically viable for the provision of these services. The Fund came to existence to ensure that even those areas which are not economically viable have access to communication services.

3.4 *The Tanzania Communications Regulatory Authority (TCRA)*

The Tanzania Communications Regulatory Authority (TCRA) is a quasi-independent Government body that is responsible for regulating the Communications and Broadcasting sectors in Tanzania. TCRA looks at consumer affairs in terms of Quality of Services (QoS) and dispute resolution in service delivery. It has regulatory authority to promote competitive behavior in the market and prevent development of monopolies. All ICT participants have similar licenses thus levelling the playing field, and making it open to all.

In mobile money payments, Economic and Technical regulation is jointly done through a MoU between TCRA and BoT. Technical aspects such as QoS are handled by TCRA whereas economic/finance aspects are handled by BoT.

The TCRA recognizes the importance of digital in enhancing businesses in the country. They are however more concerned about recourse mechanisms for customers and their payments when it comes to cross-border trade.

a) Existing Digital Infrastructure

In terms of existing digital infrastructure, there is a national exchange point for all internet related issues in Tanzania. It can further be noted that Tanzania has independent companies that operate the mobile network towers, and MNOs rent from them, e.g. Helios towers international and Tanzania towers. Such companies are awarded a Network Facilities license under the Converged Licensing Framework (CLF).

b) Existing Policy framework

In terms of DFI policy framework, Tanzania has the National Financial Inclusion framework (2018-2022) (Annex 14). It is the second framework to be implemented under the Financial Inclusion National Council, building up on the first Framework, which ended in December 2016. The Framework that lapsed focused on building infrastructure that facilitated access of financial services that were ready to be used by Tanzanians. Key achievements under the Framework that ended include the increase in the proportion of adults accessing formal financial services from 58% in 2013 to 65% in 2017, as well as a reduction in the usage of informal financial services from 16% to seven (7%) during the same period. This outcome was possible through collaborative efforts, dedication, and support of the implementing agents.

Consequently, preparation of the second Framework, was preceded by an assessment/evaluation of the previous Framework. The evaluation appraised the extent to which the set targets were achieved, and identified the challenges that were encountered when implementing the previous Framework. Additionally, an assessment of the extent and quality of stakeholders' engagement, timeliness of the activities and appropriateness of resource mobilization and utilization for implementing the prioritized actions were carried out. Inputs for this new Framework include findings from this assessment, FinScope Survey 2017, and stakeholders' ideas that were collected through industry rethinking workshops.

Therefore, the new Framework comprehensively uses lessons learnt from the implementation of the previous Framework, insights from the country's development strategies, new dynamics in the behavior of consumers, sector or industry future aspirations, and technological opportunities.

The following regulatory and guiding instruments are in existence:

- National Telecommunications Policy of 1997 (Annex 15)
- Tanzania Communications Regulatory Act No.12 of 2003 (Annex 16)
- Regulations (https://www.tcra.go.tz/index.php/regulations)

3.5 *Agricultural Council of Tanzania (ACT)*

The ACT is the umbrella organization of the agricultural private sector in the country. It unites the groups and associations of farmers, livestock keepers, suppliers, processors, transporters and researchers, in order to push for improved economical and organizational environment of the sector. In terms of the consultation meeting, a meeting was held with the Director of Policy Planning and Advocacy, Mr. T.M Mmbaga.

From the discussions, it was observed that farmers mostly use banks and cash in their transactions. The big farmers use banks when they export, and then use cash to pay their out-growers. The smallholder farmers tend to use associations and middleman who pay them using cash. It can therefore be noted that most smallholder farmers remain excluded, because they do not have a digital footprint of their transactions. As a result of this, the middlemen take advantage of, and con them. The other disadvantage is that they do not have access to credit, since credit analysis cannot be done on the basis of cash transactions.

It was also highlighted that the farmers face the challenges outlined below:

- Market access
- High cost of inputs such as fertilizers
- Closed borders for agriculture products
- Non-tariff barriers to trade
- Taxes/Levies/stringent regulations whereby one value chain can be regulated by more than one regulator

In-line with the regional common payment system, ACT is advocating for digital payments, as a way of digitally including smallholder farmers, thus improving access to finance, thus improving production. Digital inclusion eliminates the challenges experienced with middleman. For instance, some middlemen normally disappear with farmers' produce, and it is anticipated that instant digital settlement of all cross-border transactions will solve such challenges. Trends have shown that women tend to settle for instant small cash payments, as opposed to the delayed better digital payments. Experience has also shown that the majority of the smallholder farmers are paid half of what they deserve as a result of exclusion.

3.6 *Tanzania Private Sector Foundation (TPSF)*

The Tanzania Private Sector Foundation (TPSF) was incorporated for the purpose of promoting the private sector-led social and economic development in Tanzania. As an apex body and focal Private Sector Organization (PSO), TPSF is the voice of the private sector and the umbrella body for private sector associations, and corporate bodies in all sectors of the economy, including trade associations.

Members of the Foundation are business associations, corporate companies, multinationals, MSMEs, start-ups organized under different sector boards, and working groups which reflect the various sectors of the economy. The TPSF opens up potential markets for its members through business forums, and participation in local and international trade fairs, as well as offering programs to build the capacity of its members to become competitive. The Foundation pointed out that they are currently managing projects funded by USAID, which are aimed at promoting international trade. Additionally, TPSF is working on investing in infrastructure that promote a one-stop border post.

(a) Existing Digital Infrastructure

The TPSF has the Digital platform known as MSMEs Information Portal. The platform is mainly used for capacity building, entrepreneurial, financial literacy, and digital inclusion purposes.

The foundation is already working with Financial Sector Deepening Trust (FSDT) and the government to revise the existing MSME development policy of 2003. The TPSF indicated that the project prioritizes women and youth.

It is also used to close the information gap between MSMEs and the market. The main objective of the portal is to bring together diverse MSMEs-related groups, such as, existing and potential entrepreneurs, associations, buyers, sellers, technocrats, training cells, business development service providers, technology developers, and academia, to freely and openly exchange information related to the MSMEs. The Portal will specifically:

- Reduce knowledge barriers affecting access to and use of financial products and services by households and MSMEs;
- Build the capacity of financial service supervisors by having access to the opinions of MSMEs through online forums, which can assist in formulating policies that respond to their demands;
- Supplement online Business Development Services;
- Provide MSMEs with a single resource center, comprising of valuable and relevant information, training materials and tools of mechanisms for trade;
- Facilitate the creation and development of new business ideas and opportunities; and
- Provide an avenue for financial service providers to freely capture market intelligence about consumer's demands, develop product, or introduce services that respond to the consumer needs.

3.7 *Financial Sector Deepening Trust (FSDT)*

The Financial Sector Deepening Trust (FSDT) aims to develop market systems that benefit underserved individuals, and households and enterprises, offering them the capacities and opportunities to improve their lives. This involves addressing challenges, and supporting innovations, and market interventions in the financial sector, through partnerships with stakeholders in the financial sector.

The FSDT`s thematic areas are well aligned with the CBC's DFI Project as outlined below:

- Digital Finance
- SME Finance
- Agricultural and Rural Finance
- Insurance

The Trust adopts a market development approach towards addressing systemic constraints in the market, and contributing towards achieving pro-poor growth in the financial sector.

In terms of digital finance, FSDT defines it as access to electronic/DFSs through non-traditional banking infrastructure (branches and ATMs). This entails the use of alternative delivery channels that are largely driven by mobile technology, through mobile money and agency banking models.

(a) FSDT Recommendations

- Improvement of policy, laws and regulations in the business of financial intermediation. Current laws affect the vulnerable i.e. smallholder farmers, youth, women and MSMEs. There is a perception by businesses and politicians that these groups are facing numerous challenges, for instance, in the cashew nuts value chain where farmers are the least paid. It should also be noted that despite being on the seashore, Tanzania is still importing fish.
- A common vision among the member countries is important for the CBC project to take off. The project must start with the end in mind, while considering the value proposition for the MSMEs and smallholder farmers.
- Infrastructure development - there is need to have supporting infrastructure that promotes trade first, before looking at the development of a cross-border financial system
- Market linkages: There is a need to do a careful analysis of who should be prioritized in cross-border trade, and payment systems. Other factors such as non-tariff barriers must also be considered.
- Regulatory mindset issue to be considered. A typical example is the use of VISA card which has huge limits as compared to M-Pesa.
- All risks associated with cross-border payments should be looked into.

3.8 *Coca Cola Kwanza*

Coca-Cola Kwanza is a subsidiary of Coca-Cola Beverages Africa (CCBA), which CCBA accounts for about 40% of all volumes that are sold by Coca-Cola volumes Africa. The company focuses on accelerating growth and social development within its value chain. From the discussions, it was noted that Coca-Cola kwanza mainly uses the cash on delivery mechanism, and is not yet using digital platforms for its forward integrations. Conversely, there are also no backwards integrations with either farmers or MSMEs at the moment. Cash-on-delivery has challenges of late confirmation, thereby occasioning delays in the distribution of products to customers.

From the distribution perspective, there are two layers of distribution, which are the primary; and secondary distributions. Primary distribution happens from Coca-cola to the agents, while secondary distribution happens from the agents to the retailers.

As part of innovation, Coca-cola has also developed a market intelligence portal called Sales Force Automation (SFA), which is used to capture orders.

Forward integrations happen in distribution, because the company makes use of agents and franchises for primary distribution. They pay using cash deposit or bank transfers, and sometimes get products on credit.

In terms of Coca-Cola products, license restrictions make it impossible to carry out cross-border trade.

3.9 *Kenya Commercial Bank (KCB)*

Kenya Commercial Bank Tanzania Limited, is a commercial bank operating in Tanzania. It is one of the twenty-nine banks that have been licensed by the BoT, the country's banking sector regulator. The bank observes that Tanzanian's use mobile money more than cards, and their whole system of delivery is now centered on mobile money for the bank to be inclusive.

The bank also makes use of aggregators in financial transactions, including Cellcom, Cellulant and Maxcom. The bank is integrated with all the Mobile money providers in Tanzania, which was done through an aggregator.

(a) International payments

The bank is present in all six EAC countries - South Sudan, Kenya, Burundi, Uganda, Rwanda and Tanzania. For this reason, the banks can initiate instantly inter -country transfers within the KCB group.

Although exchange rates are predetermined, customers can walk into the bank and negotiate for a given rate.

(b) Existing digital Infrastructure

There is no SWITCH involved as the bank branches use the TIPS model, which is a new market infrastructure service that was launched in November 2018. It enables PSPs to offer fund transfers to their customers in real time and around the clock. This implies that individuals and firms can transfer money between each other within seconds, irrespective of the opening hours of their local bank.

(c) MSME support

The bank has an MSME banking division that is specifically meant to cater for MSMEs. The bank also uses digital platforms to allow customers access micro loans. This is usually done through the use of an algorithm.

3.10 Tanzania Association of Microfinance Institutions (TAMFI)

Tanzania Association of Micro Finance Institutions (TAMFI) is a not-for-profit umbrella organization for Micro Finance Institutions (MFI) in Tanzania. It was formally registered in 2001 as a sole network for micro finance activities in the country. Members include Commercial, Community and Microfinance Banks, NGOs, Private MFIs, SACCOS, apex of informal groups, micro -insurance company and Business Service Providers. The association seeks to develop capacity of MFIs and the micro finance sector in general, through advocacy, lobbying, research and development, responsible micro finance, capacity building, and information gathering and dissemination. The Microfinance Act (2018) and The Microfinance (Role of The Minister) Regulations (2019) also assign the task of developing and ensuring application of standards to the Association.

The current 99 member institutions of TAMFI reach out to approximately 1.2 million micro entrepreneurs in urban and rural areas. These are micro entrepreneurs who are committed to change their financial behaviors.

TAMFI’s objectives are:

- To enhance, strengthen, and to act as a forum to address mutual interests and to develop micro-finance institutions in Tanzania;
- To act as a networking, lobbying and advocacy body for the sector;
- To act as a unifying organ between its members;
- TAMFI shall advocate the Government of Tanzania (GOT) to create and maintain an appropriate regulatory framework for Micro-finance Institutions in Tanzania; and
- To facilitate (carry out) research, relevant for MFI development and provide viable suggestions.

(a) Partnerships

The MFIs have currently not partnered with any banks or mobile money providers. Nevertheless, the Association would prefer mobile money partnerships for the benefit of their borrowing customers.

Most MFIs use manual systems for accounting and other record keeping purposes, thus making digital linkages impossible. TAMFI is already working with partners in EAC to come up with an EAC MFI Act, in order to ensure policy harmonization.

3.11 Equity Bank

Equity Bank Tanzania Limited, is a commercial bank, operating in Tanzania . It is licensed by the BoT and is a member of the Equity Group Holdings Limited, which is a large financial services conglomerate, headquartered in Nairobi, Kenya.

Just like the case of KCB, Equity Bank also realized that Tanzanians use mobile money more than cards, and their whole system of delivery is centered on mobile money for the bank to be inclusive.

The bank also uses aggregators such as Cellcom in financial transactions. The bank is integrated with all the mobile money providers in Tanzania, which was done through an aggregator.

(a) International payments

Equity bank is available in seven (7) countries. This number is expected to increase to nine (9) within the EAC and SADC regions. Equity Bank is present in South Sudan, Kenya, Burundi, Uganda, Rwanda, Tanzania and DRC. In view of this development, banks can initiate inter country transfers instantly within the equity group.

Equity also shares a related strategy with KCB, where exchange rates are predetermined, although customers can walk into the bank and negotiate for rates.

(b) Existing Digital Infrastructure

The bank has partnerships with inter VISA.

Due to the absence of SWITCH, the bank branches use TIPS, a new market infrastructure service which has recently been launched. Transactions are done in real time implying that individuals and firms can transfer money between each other within seconds.

(c) MSME support

The bank has an MSME banking division and does not use a digital lending as a platform.

The bank supports women led MSMEs through a model called FANIKISHA. The support itself has flexible security requirements. This is in line with DFI Project which focuses on women.

3.12 Vodacom

Vodacom Tanzania Limited is one of the Tanzania's leading cellular network company. Vodacom Tanzania is regulated by TCRA and BoT with 14 million subscribers, out of which 9.9 million are mobile money subscribers. In terms of network coverage, Vodacom has a 98% geographical coverage.

(a) Vodacom M-Pesa

Vodacom M-Pesa is a revolutionary financial service that is offered by Vodacom Tanzania. It is one of the options for Tanzanians who need to send money anywhere in Tanzania to any person who has a mobile phone. Customers are assured of are immediate, safe and reliable money transfers with Vodacom M-Pesa.

Vodacom M-Pesa has been reaching out to every corner of Tanzania since its introduction in April, 2008. The services are mainly Person-to-Person, Customer-to-Business, Business-to-Customer and Business-to-Business.

(b) Existing Digital Infrastructure

Vodacom Tanzania has deployed state of the art technology, thereby enhancing its product portfolio, and positioning itself as the market leader for communication solutions. Vodacom Tanzania addresses the needs in terms of provision of voice, data, leased lines, international connectivity, and remote communication solutions over satellite, and banking solutions.

Technologies available to subscribers, both individuals and corporate through Vodacom Tanzania, include 3G and 4G. The past one year has witnessed a significant increase in competition in Tanzania. Besides quality, coverage plays an extremely important role in the competition.

3.13 MSMEs Meeting and training

The MSMEs recognized the important role that digital payment schemes plays in intra-regional trade, in terms of reducing the cost of transactions. Their biggest challenge in business is access to finance. They also indicated that the cost of transacting across borders is high.

Social Media remains a major business tool, and the MSMEs recognized the need for further education on the use of digital marketing platforms. They highlighted the fact that cross-border payments in Tanzania are limited in operation even within EAC region, thus making it more difficult when they want to trade outside EAC.

4. Payment Infrastructure Landscape

The payment system landscape that is used by the government includes: the Treasury Single Account (TSA); Tanzania Automated Clearing House (TACH); Tanzania Interbank Settlement System (TISS); and Government Electronic Payment Gateway (GePG). Cross- border trade is facilitated through the East Africa Payment System (EAPS) between Tanzania and other EAC countries.

Intra-EAC Trade	Number of Transactions	Value (2019)	Value (2019) (Us$)
Tanzania and Kenya	1478 (up 3% yoy)	KES 2.1 billion (down 14,5% yoy)	Us$19.2m
Tanzania and Uganda	221 (up 44.4% yoy)	UGX 4.2 billion (down 73.9% yoy)	Us$1m

Table 30: Intra-EAC Trade (Source: February 2020 Monetary Policy Statement, BOT)

While there was an increase in the number of transactions, the actual value of transactions went down. Number of transactions channeled through the Electronic Fund Transfers (EFT) through TACH have also been on an upward trend, up to 9.2% year-on-year. This has been attributed to the increased use of EFT by the Government, which has improved efficiency, while minimizing costs associated with the use of cheques.

Mobile money has enabled many Tanzanians, including the poor to transact within instantly despite the vast distances between some of them. Mobile money services have become popular in just a decade, with the major players - Vodacom's M-Pesa, Tigo Pesa, Airtel Money and Ezy Pesa, competing against each other for customers. This brings additional benefits to the population in terms of number of access points, and cost of transacting.

The country's payment system is viewed as the infrastructure that gives the country the highways for processing payments locally and internationally, as a result of various economic activities. The Central Bank has identified a number of problems with the payment systems, which have been associated with poor infrastructure. These are:

1. Excessive delays in clearing or settlement, which leads to costly floats, payment risks exposure, extra standby system costs, customers inconvenience and loss of confidence and trust;
2. Potential fraud because the delays can be used to defraud individuals and government; and
3. Excessive bureaucracy and controls, since there is potential that banks will set up additional checks to mitigate and control potential frauds.

Similar to many EAC countries, the payment infrastructure in Tanzania includes all the specific individual payment transactions, and the clearing and settlement systems operating in the country, including those headquartered elsewhere. Payments infrastructure also includes, the legal and regulatory framework for market organization, mechanisms for consultation, and coordination and arbitration among the principal stakeholders. The platforms are defined below.

Cross Border Implications		
Payment Type	Direct Debits, Direct Credits and Cheques	
Sender	Banks RTGS EFT MNOs MTOs	
Aggregator	Umojaswitch Interswitch Cellulant	Fees at KES 40 (USD$ 0.40) for processing an ATM transaction. **In the EAC, Interswitch is connected to Interswitch in Uganda, Rswitch in Rwanda, Umoja in Tanzania, and Paynet in South Sudan. Interswitch has partnered with Umoja switch**
Clearing	TACH TIPS	
Receiver	Banks MNOs Utilities Agents	
Settlement	TISS EAPS REPSS	EAPS and REPSS facilitate cross-border payment and settlement within the EAC and COMESA regions

Table 31: Platforms - Tanzania

a) Tanzania Inter-bank Settlement System (TISS)

The Tanzania Inter-bank Settlement System (TISS) is an on-line real time gross settlement system, which processes high value and time sensitive payments. This system enables real time and gross settlement of payment instructions between banks. It also facilitates settlement of inter-bank transfers and clearing houses balances, money market and the foreign exchange market transactions. The system aims at improving efficiency in payment systems by eliminating settlement lag for high value and time sensitive payments while minimizing settlement risks.

b) Tanzania Automated Clearing House (TACH)

The Tanzania Automated Clearing House (TACH) is an electronic clearing system that processes in real time by sending images instead of physical cheques. TACH offers clearing services which enables payment instructions (Direct Debits, Direct Credits and Cheques) to be exchanged among participant banks. It also generates a net position and submission of net settlement instructions to TISS. Currently, TACH does not have an option for real time clearing.

c) Tanzania Instant Payment System (TIPS)

The Tanzania Instant Payment System (TIPS) was launched in January 2019 as a single instant payment platform that would connect different PSPs in a cost effective and secure manner. The system is expected to facilitate financial inclusion through the provision of interoperability of the digital financial service providers. It will also provide a single national switch that will facilitate BoT to provide oversight supervision of payment systems, improve financial inclusion through usage of electronic payments platforms, and promote cash-lite economy. The project is expected to be completed in 2021.

d) Regional Switch Integration

The EAC Secretariat through its Financial Sector Development and Regionalization Project I (FSDRP I), has a regional switch initiative that saw the integration of four switches to facilitate payments across East Africa, based on cards. This will allow customers who have cards belonging to Umoja Switch - Tanzania, Interswitch - Uganda and R-Switch - Rwanda to access more than 1,300 Kenswitch ATMS across the region.

4.1 Pricing Structure for Digital Payments

	MPESA	**Airtel Money**	**TigoPesa**	**Halopesa**
Description	Mobile money service allowing storing, sending, and receiving funds via a mobile device. 41% market share	mobile money platform	mobile banking service	Mobile money service
Cross Border Pricing Structure	Based on transaction size[51] Max fee of $1 for up to $50 send Max fee of $5 for up to $700	Based on transaction size[52] Max fee of $8.80 for up to $10 send Max fee of $570 for up to $49,000	n/a	n/a
Coverage	Rwanda, Tanzania & Uganda Global to bank accounts & Western Union Paypal	Uganda, Tanzania and Rwanda	n/a	n/a

5. Policy and Regulatory Framework

The BoT is responsible for enforcing the Payment Systems Act, 2015 and its regulations; Payment Systems Licensing and Approval Regulations, 2015; and Electronic Money Regulations, since it was enacted in 2015. Given the various challenges experienced from the regulators' and payment system providers' perspectives, the bank is in the process of reviewing the Act and its regulations, by gathering issues noted during implementation, and recommend amendment(s) or enhancement(s) to the legal and regulatory framework. The process is important because, the NPS Act 2015 and its regulations provide compliance and standards for the payment system operators, towards ensuring security and efficiency of the NPS (BoT, 2018)[53]

Policy and Regulatory	
Policy/Regulation/Directive	**Key Issues**
Bank of Tanzania Act 2006	Primary objective is to pursue domestic price stability.
	BOT assumes several roles at the national payments system, as a user of the NPS, member of the NPS, a provider of payments systems, and an overseer of the payment system
	The Bank has regulatory and supervisory functions with respect to clearance system and settlement system as outlined under section 6 of the BoT Act,
Banking and Financial Institutions Act, 2006	The Act criminalizes the acceptance of deposits from the general public by any person who has not been licensed by the BoT to engage in banking business.

51 https://www.safaricom.co.ke/personal/m-pesa/getting-started/m-pesa-rates

52 https://www.airtel.co.tz/airtel-money-service

53 https://www.bot.go.tz/Publications/Fin-stability/FSR%20Sept%202018.pdf

<table>
<tr><td rowspan="4">The National Payment Systems Act, 2015</td><td colspan="2">Make provisions for the regulation and supervision of payment systems, regulation of electronic payment instruments, electronic money, payment system service providers, validity and enforceability of netting arrangements, finality and settlement of payment instructions, and to make provisions for related matters. It gives the bank the power to:</td></tr>
<tr><td>1</td><td>regulate, supervise, investigate, and oversee the operations of payment systems;</td></tr>
<tr><td>2</td><td>provide settlement services to payment systems, the clearing house, and a central securities depository</td></tr>
<tr><td>3</td><td>The Bank shall prescribe eligibility requirements for an electronic money issuer, which shall include corporate structure, permissible services, and capital adequacy</td></tr>
<tr><td rowspan="4">The Electronic Money Regulations, 2015</td><td colspan="2">A payment system provider, who is a bank or a financial institution that intends to issue electronic money, shall apply in writing to the Bank for approval to issue electronic money</td></tr>
<tr><td>Reg 28, 29</td><td>Trust Accounts - open a special account to maintain funds deposited by non-bank customers who have been issued with electronic money</td></tr>
<tr><td>Reg 3</td><td>Resolution of Complaints - license shall not be issued without customer terms and conditions that include disclosure requirements, complaints, and redress mechanisms;</td></tr>
<tr><td>Reg 37</td><td>Customer Service Agreements - A payment service provider is liable to its customers for the act and omissions of its agents, performed within the scope of the agency agreement</td></tr>
<tr><td>Tanzania Communications Regulatory Authority (TCRA) Act no. 12 (enacted 2003)</td><td colspan="2">Enacted with the aim of putting in place a comprehensive regulatory framework for electronic and postal communication.</td></tr>
<tr><td>The Fair Competition Act (enacted 2003)</td><td colspan="2">Consumer Protection in Tanzania is provided under Parts III – IX of the Fair Competition Act 2003. It is an Act to promote and protect effective competition in trade and commerce, to protect consumers from unfair and misleading market conduct, and to provide for other related matters</td></tr>
<tr><td>The Anti-Money Laundering Act, 2006</td><td colspan="2">To ensure all Mobile Payment Service Providers are subject to effective systems for monitoring and ensuring compliance with AML/CFT measures</td></tr>
<tr><td>Microfinance Act (2018)</td><td colspan="2">To regulate licensing and registration of deposit and non-deposit taking microfinance business in 4 tiers:

Tier 1 – deposit taking microfinance service providers, such as banks and microfinance banks.

Tier 2 – non-deposit taking microfinance service providers, such as credit companies and financial organizations.

Tier 3 – SACCOS under the Cooperative Societies Act.

Tier 4 – community financial groups, individual money lenders and community-based organizations.</td></tr>
<tr><td>The Microfinance (Role of The Minister) Regulations (2019)</td><td colspan="2">The Regulations will give the Minister the power to enhance, ensure, and promote a sustainable microfinance business environment, and implement microfinance policies, transparency and accountability</td></tr>
</table>

6. Field Mission Key Learning Points

The following is a summary of key learning points of the field mission in Tanzania:

- There is agent interoperability, whereby one agent can serve several operators, which has resulted in having a few booths as illustrated above. Most shops serve all types of operators. This is not common with other countries such as Zambia, Malawi etc
- There is enforcement of mobile money interoperability by the regulatory framework
- The licensing framework for infrastructure is technologically neutral with a Converged Licensing Framework
- Tanzania has a universal service access fund which ensures that the rural areas are catered for by the ICT services.
- Tanzania has developed regulations including consumer protection, consumer complaint guidelines, and infrastructure sharing which are essential for digital payment systems
- As part of deployment of the digital infrastructure, BoT is working on having the national switch for the country
- Mobile money transactions were initially encouraged by Coca-Cola in Tanzania, but could not be sustained because some agents could not have enough cash to facilitate the transactions. This therefore calls for a strategy on the wide availability of agents with enough cash.

7. Pictorial Focus

Tanzania Chamber of Commerce Board Member Making opening remarks

Group Photo – CBC Team and Tanzania Chamber of Commerce

Participant making a contribution during the session

CBC Marketing Officer, Marianne Nzioki making a presentation on CBC Overview

Figure 29: Pictorial Focus- Tanzania

APPENDIX 4: UGANDA

1. Macro-economic Overview

According to the 2014 national census, Uganda's population was projected to be 40.3 million by mid- 2019 (UBOS, 2019)[54], with a broad-based population pyramid, suggestive of a young population. The GDP per capital for the 2018/19 period was reported to be standing at US$878, with an annual GDP growth rate of 6.5%. The economy is dominated by, services (43.3%), manufacturing (27.1%) and agriculture (21.9%).

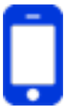		
25.8m registered mobile money users	44% all transaction accounts, 27% accounts with financial institutions, ICT Contribution to GDP 7%[55]	Median age of 16.7 years

Table 32: Key Statistics - Uganda

The Private Sector Foundation Uganda (PSFU) noted that, the biggest online spenders in Uganda are the 30-40 age group. A majority of Uganda's B2C transactions are now run on mobile devices, similarly most C2B payments are done online. The e-commerce sector is now run on mobile devices and social media platforms, including Facebook, WhatsApp, Snapchat and WeChat. The biggest challenge that has the potential stifling growth in the sector, is the imposition of a 200 shillings (Us$0.05) taxation of daily on users of the social media platforms. However government argues that officially, the law is aimed at raising public revenues.

2. Observations from MSMEs in Uganda

2.1 *The MSME Profile*

The profile of the MSME owners was analyzed on the basis of age, level of education, gender, location and the reason for starting the business. This is useful in understanding entrepreneurial densities across these classes. A total of 25 MSMEs responded to the study in Uganda.

2.2 *Demographic Profile*

An analysis of respondents across gender shows a dominance of males (52%), with 85% of male respondents considering themselves to be entrepreneurial, and 15% of indicating that they started their businesses out of desperation. In contrast, 75% of the female respondents considered themselves entrepreneurial, 17% reported that they were desperate, while eight (8%) of female respondents preferred not to say the reason for starting their businesses.

A small proportion, 17% and 23% of the female and male business owners respectively had a tertiary education. On the other hand, 75% of the females were micro-level entrepreneurs, and 25% own small enterprises based on COMESA classification for MSMEs in contrast, 69% and 23% of males reported that they own the micro-enterprises and small enterprises (COMESA classification) respectively. The higher proportion of male and female business owners in the micro- level enterprises could be attributable to the fact that the bulk of them had lower educational attainments, hence lower formal employment prospects.

As shown in Figure 15, 56% of the respondents are under the age of 34, i.e. considered as youth. This is consistent with the overall country demographic, where 75% of Uganda's population is below the age of 30. Additionally, the country has one of the highest rates of youth unemployment sub-Saharan Africa standing at 13.3%.

[54] https://www.ubos.org/wp-content/uploads/publications/01_20202019_Statistical_Abstract_-Final.pdf

[55] Uganda ICT sector Investment Profile 2016 available from http://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/SITA/Uganda%20ICT%20booklet_final_web_page.pdf

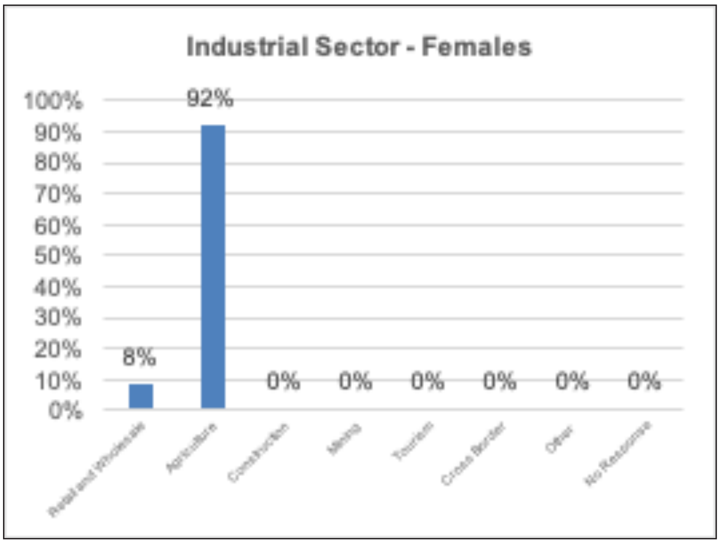

Figure 29: Industrial Sectors for Females - Uganda

An analysis of the gender matrix amongst Ugandan MSME respondents (Fig 29) showed that, female business owners were more likely to be involved in Agriculture (92%) and Retail and Wholesale (8%). While the female respondents did not consider themselves to be cross-border traders, they however crossed the borders to buy items at a lower cost. In comparison, 62% of the males were in agriculture, 23% were in retail and wholesale, while only 15% considered themselves to be cross-border traders. Cumulatively, the study shows that 76% of Uganda's MSMEs were in agriculture, 16% in retail and wholesale, while eight (8%) were in cross-border.

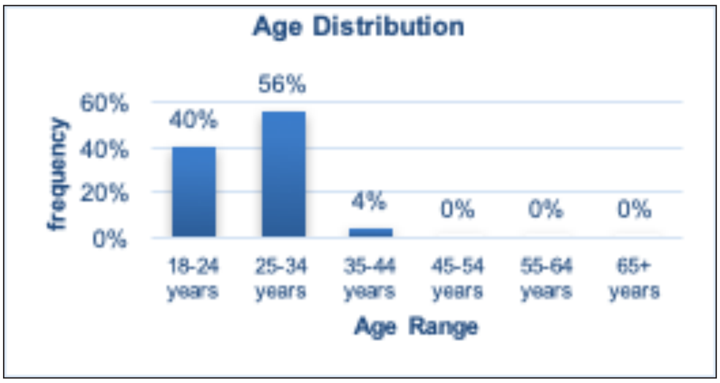

Figure 29: Industrial Sectors for Females - Uganda

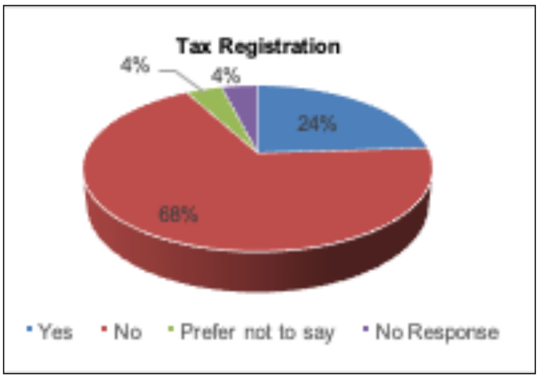

Figure 31: Tax Registration - Uganda

It was further established that the ownership of independent businesses including sole traders, was distributed equally between the genders. Corporates were owned by 56% females and 44% males while private business corporations were owned by 33% females and 67% males. There were no limited liability companies registered in this study. This suggests that the MSMEs were owners of less mature, under-developed businesses, and informal businesses. As shown in figure 17, 68% of the respondents were not registered for tax purposes, 24% were registered, while 4% opted not to disclose their tax registration status.

2.3 *Trade and Ecommerce Facilitation*

A form of transacting account is essential, for one to be able to transact digitally. The study revealed that 72% of the respondents had transacting accounts. . It was further established that respondents whose businesses were older than three (3) years, had higher chances of owning a transaction accounts, at 77%, in comparison to respondents with businesses that had been in existence for less than a year, who preferred transacting via mobile platforms.

In terms of satisfaction with their transacting accounts, 60% of the respondents indicated that they were at least satisfied with the services they were getting from their business bank accounts. Additionally, 56% were at least satisfied with their personal accounts, while 64% were at least satisfied with their mobile money accounts. Consistent with the other countries, respondents preferred mobile money as the preferred method of payment, with 44% of the respondents using mobile money, 30% using bank accounts, and 26% preferring cash.

It was established that distance between the MSME owner and the nearest financial services center, be it a mobile money agent or bank branch, affects businesses, as they may increase the cost of accessing financial services. So as to access financial services, 52% of the respondents indicated that they travelled less than a kilometer to be served, while 16% of the MSMEs travelled between 1 - 5kms to access financial services.

In terms of the mobile technology, 68% of the respondents were using smartphones, while 32% were using the basic feature phones. This indicates that market information can easily be shared with MSMEs via applications. In local trade, 40% of the respondents preferred being paid immediately after delivery of goods and services. Similarly, 32% of the respondents indicated that if they were to engage in international trade, they would expect payment immediately after delivery, eight (8%) preferred being paid upon contracting, with another 20% preferring payment before delivery.

2.4 *Market Penetration and Access*

None of the respondents in Uganda indicated that they were export oriented, despite having previously indicated that they were involved in the cross-border industry. Almost 80% of the respondents' traded within their municipality of operations, 12% went further into the province, while four (4%) traded countrywide.

The study found that 84% of the respondents were members of trade associations, while 16% were not affiliated to any association. In terms of using associations, 72% of the respondents indicated that they used the associations to access both internal and foreign markets, while 24% thought that trade affiliations were not necessary. Some respondents (64%) indicated that they used unregistered middlemen to access markets, 24% do it alone, and eight (8%) preferred not to say.

As shown in figure 32, 68% of the MSMES indicated that their products could be ordered online, 24% reported that their products could not be ordered online, and four (4%) thought the question was not applicable to their businesses. On international trade, 24% of the respondents indicated that they used digital platforms to engage in cross-border trade, while 72% did not. With regard to the probability of ordering for inputs online and paying digitally, 56% indicated they would consider doing so, although the majority (72%) of the MSMEs buy inputs locally. As concerns digital trade 48% of the MSMEs indicated that they would consider selling and receiving payments digitally, while 36% reported that they would need more information before they could make a decision.

Figure 32: Online Market Presence - Uganda

The study equally sought to understand whether MSMEs would use digital payment solutions in cross-border trade, to which 76% of the respondents indicated that they would most likely use mobile payment solutions in conducting cross-border trade, while 24% were not sure. Out of those that were most likely to use mobile payments, 25% of them indicated they would use mobile payments because of their convenience.

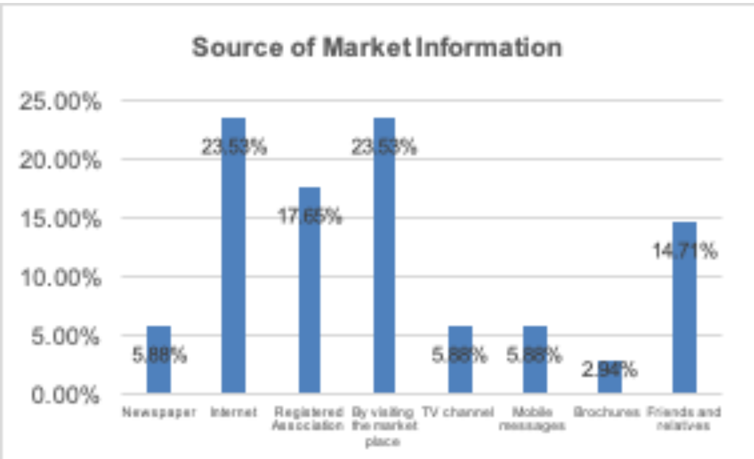

Figure 33: Sources of Market Information - Uganda

As shown in figure 33, the internet and market visits (24% each) were the biggest sources of information for MSMEs, while 18% of them received information from registered associations, and 15% got information from friends and relatives. In order to ensure that they were getting the right information, 72% of the MSMEs preferred market information being sent on their phones. This, presents an opportunity to share market information with MSMEs conveniently and in a timely manner.

The study also sought to understand how social media is viewed as a business tool. Eighty-eight (88%) of the MSMEs considered social media to be important for business, four (4%) thought it was not important, while eight (8%) did not know.

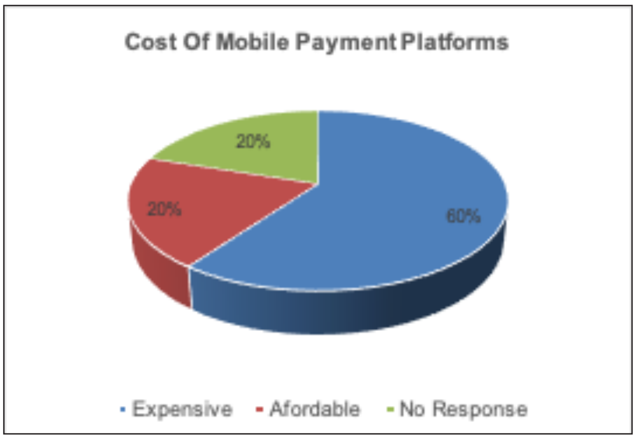

Figure 34: Mobile Payment Platform Costs - Uganda

The study also attempted to comprehend how MSMEs viewed the cost of mobile payments, 60% of the MSMEs considered mobile payments in business to be expensive, and 20% thought they were affordable.

In an effort to determine the important Value-Added Services (VAS) that MSMEs would want to see on their mobile platforms, 32% of the respondents cited bank statements, 24% wanted to see currency exchange rates, while 18% were for product focus demand. Concerning the impact of digital payments on turnover, 88% of the MSMEs believed the digital payments systems had the potential improving their annual turnover, and four (4%) did not think so. In the same vein, 72% of MSMEs were convinced that regional payment systems for cross-border trading would positively impact their business, 12% were of the opinion that their business would be impacted negatively, while 12% did not know whether their businesses would be impacted on or not.

3. Stakeholder Consultation meetings

3.1 *The Banking Sector in Uganda*

The financial services industry in Uganda comprises the banking, insurance, microfinance and investments sectors, but remains dominated by the banking sector[56]. Uganda's financial system is also composed of formal, semiformal and informal institutions. The formal institutions include banks, microfinance deposit-taking institutions, credit institutions, insurance companies, development banks, pension funds and capital markets. The semi-formal institutions include the Savings and Credit Cooperative Associations (SACCO) and other microfinance institutions, whereas the informal institutions are mostly village savings and loans associations. The formal institutions are less prominent in rural areas in comparison to urban areas, and only serve 14% of the rural population. Informal institutions play an important role in the provision of financial services in rural areas, and serve approximately 12% of the rural populace.

3.2 *Ministry of Finance, Planning and Economic Development*

The Ministry of Finance, Planning and Economic Development is mandated to formulate sound economic and fiscal policies, mobilize resources for the implementation of government programs, disburse public resources as guided by Parliament, and account for their use in accordance with the national laws and international best practices.

According to the discussions, the Ministry is moving with speed towards the digitization of MSMEs and government services. The Ministry is particularly interested in digitizing the economy, because it wants to avoid incidences of cash gate[57] scandals which it describes as the systematic looting of public money. It is believed that digitization will reduce incidences of such cases.

[56] https://www.pwc.com/ug/en/industries/financial-services.html
[57] https://www.economist.com/baobab/2014/02/27/the-32m-heist

The Ministry, under the financial sector deepening program, is mandated to promote the development and ensure deepening of the financial sector. The financial sector deepening program has the following objectives among others:[58]

- Provide policy oversight and establish the database of all financial institutions in the country.
- Periodic review and analyzing the general performance of the financial sector to inform policy.
- Initiate policies, and laws for deepening and improving the penetration of the financial sector.
- Provide appropriate legislation that makes the financial system efficient and stable.
- Protect the consumers of financial products and create a climate for competition as well as further development.
- Support effective regulation in respect to financial institutions.
- Create a conducive policy environment for product development with gender equity perspectives.
- Participate in the formulation of EAC legislations relating to the financial sector to achieve financial convergence.
- Allow developments in the financial markets and business sector in order to assess the need for new policy, new legislation or amendments to existing laws.
- Provide policy advice for regulatory bodies in the financial sector.
- Formulate rational and sound financial policies that contribute to national and global financial stability.

The country is in favor of digitization. All laws and regulations including policies are now aligned.

3.2.1 *Benefits of Digitization*

The Ministry recognizes the following as the major benefits of digitizing the economy from a financial perspective:

- Improved financial inclusion
- Reduced cost of transactions
- Reduced corruption cases
- Increased revenue
  - E-tax system has significantly improved revenue collections in Uganda.
- Improved public finance management
  - All payments are now being done electronically.
  - Digitization has reduced government expenditures.

3.2.2 *MSME Support*

One of the Ministries' core mandate is to facilitate trade and regional integration initiatives within the EAC and the COMESA region. These regional integration initiatives will help promote trade for MSMEs within both trading blocks.

3.2.3 *MSME Challenges*

It was noted that the biggest challenge for MSMEs in Uganda is access to finance. They anticipate that with the introduction of digitization, there will be alternative sources of finance, which will help the MSME sector to grow, and the informal sector to formalize thereby improving in the mobilization of domestic resources.

3.2.4 *Regulation and Policy*

The following policies are administered under the Ministry of Finance, Planning and Economic development: Uganda Public Finance Management Act 2015; Public Finance Management (amendment) Act 2015; Public Finance Management Regulations, 2016; Treasury Instructions 2017; and the Investment Code Act, 2019. There are also other regulation authorities that fall under the Ministry including the Uganda Microfinance Regulatory Authority.

[58] https://gou.go.ug/ministry/ministry-finance-planning-and-economic-development

3.3 *Uganda National Farmers Federation (UNFFE)*

Uganda National Farmers Federation (UNFFE) is the largest non-governmental farmers' organization in Uganda. It is an umbrella farmer's NGO, which was founded in January 1992 as Uganda National Farmers' Association (UNFFA).

UNFFE is the apex body for farmer organizations and the voice of smallholder farmers. It ensures that smallholder farmers are equipped with the necessary skills required to improve their production. UNFFE also engages the government on many policy issues such as the review of taxes on agricultural inputs.

3.3.1 *Access to information*

UNFFE supports digitization because it believes that this will allow smallholder farmers to have access to market information, while ensuring that the information gap is closed. Many farmers are normally misled by aggregators due to lack of information. Farmers who are digitally excluded do not get what is due to them because of lack of information on markets. Most of the farmers do not have accounts into which payments can be transferred, and they end up being paid instantly in cash which is usually low. Because of lack of market information within the farmer's groups, some aggregators even buy the whole garden before the harvests, taking advantage of the smallholder farmers' vulnerabilities.

3.3.2 *Access to Finance*

The biggest challenge for smallholder farmers on access to finance is that, the Government grant that was meant for the farmers, was given to commercial banks for management. However, very few farmers have accessed the funds because of lack of collateral and lack of credit history.

The Eastern Africa Farmers Federation (EAFF) developed an SMS based platform called e-Granary, which was funded by Alliance for a Green Revolution in Africa (AGRA) through her continental program known as the Financial Inclusion for Smallholder Farmers in Africa Project (FISFAP) . This platform offers smallholder farmers with key services such as market linkages, affordable financial services, certified inputs and e-extension services.

The EAFF is on a mission to link farmers with financial institutions.

3.4 *Private Sector Foundation Uganda (PSFU)*

The Private Sector Foundation Uganda (PSFU) is the country's apex body for the private sector. It is made up of over 200 business associations, corporate bodies and the major public sector agencies that support private sector growth. The Foundation is the focal point for private sector advocacy, as well as capacity building, and continues to sustain a positive policy dialogue with the Government on behalf of the private sector. PSFU aims to strengthen the capacity of the private sector towards effective policy advocacy and market competitiveness nationally, regionally and internationally. Regionally, PSFU is the national focal point for the East African Business Council (EABC) and the CBC[59].

It was noted that PSFU advocates for strong partnerships at all business levels. It engages with the Government and other development focused organizations in the country or abroad. The Foundation is convinced that digitization creates more opportunities for its members. Digitization opens up the market, reduces the information gap, and widens the tax base for government revenue collections.

3.4.1 *Capacity building*

The MSMEs are taken through a business mentorship program, which none them leaves without appreciating the concept of DFI. Financial literacy trainings are also part of the training program.

[59] https://www.psfuganda.org/

3.5 *Equity Bank*

Equity Bank Limited is a commercial bank in Uganda and is licensed by the Bank of Uganda. It is a subsidiary of Equity Group Holdings Limited, a financial services conglomerate that has its headquarters in Kenya, with subsidiaries in six (6) countries of the African Great Lakes Region.

According to the bank, most Ugandans are now comfortable with mobile money, and the bank is also focused on making sure that its digital delivery channels are up to standard and inclusive.

In delivering services to its clients, the bank makes use of aggregators, and is also linked to MTN and Airtel for bank to wallet, as well as wallet to bank transactions.

3.5.1 *Access to Finance*

Depending on the size of the loan, customers can apply for, and repay a loan without visiting the bank. The bank has its agents in rural areas, which is aimed at enhancing the financial inclusion of the marginalized communities.

The bank can be accessed through the application or USSD platform or any mobile money platform being used by the customers.

3.5.2 *International payments*

Equity Bank is available in seven (7) countries. This number is expected to increase to nine (9) by end of 2020 within the EAC and SADC regions. The bank is present in South Sudan, Kenya, Burundi, Uganda, Rwanda, Tanzania and DRC. In view of this development, the banks can initiate instant inter-country transfers within the Equity Group.

Due to the absence of SWITCH, the bank branches use TIPS, a new market infrastructure service which has recently been launched. Transactions are done in real time implying that individuals and firms can transfer money between each other within seconds.

The bank has partnerships with international payment providers such as VISA. It has predetermined exchange rates, but customers can walk into the bank and negotiate for rates.

3.5.3 *MSME Support*

The bank has MSME banking division that offers micro-loans to MSMEs

3.6 *KCB*

Kenya Commercial Bank (KCB) Uganda Limited is a commercial bank in Uganda, which is licensed by the Bank of Uganda. KCB Uganda is owned wholly by the subsidiary of the KCB Group of companies. The holding company oversees KCB Kenya and all KCB's regional units in Uganda, Tanzania, Rwanda, Burundi, Ethiopia and South Sudan. It also owns KCB Insurance Agency, KCB Capital, KCB Foundation, National Bank of Kenya and all the associate companies.[60]

3.6.1 *Partnerships*

The Bank has partnership arrangement with Airtel, where Airtel mobile money customers can apply for, and access loans from their mobile money accounts. Loans are available to Airtel Money customers, and are bankrolled by the bank.

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[60] https://kcbgroup.com/

Airtel money has partnership arrangements with agents. This partnership is aimed at assisting agents to rebalance their float. There are two different types of loans that are available:

- Agent float rebalancing, with a tenure of 48hrs
- Individual loans payable in 30 days.

According to the bank, these are the best performing loans according the books of the bank in terms of default rates. Only one (1%) of the agents' loans are non-performing.

3.6.2 *MSME Support*

The bank has an MSME banking division, which use digital platforms to allow customers to access nano and micro loans. Calculation of the loan limit is done through the use of an algorithm.

The bank is currently working on a retail financing model for MSMEs. This is a product aimed at MSMEs involved in retail business.

An additional innovation from KCB is that, unlike the situation in most banks in Africa, mobile money statements are now admissible for credit evaluation.

3.6.3 *Agricultural Finance*

The bank offers agriculture financing to commercial and smallholder farmers at subsidized rates. Prime borrowing rates are 20% per annum, while agriculture is only 12% per annum. However, the bank has indicated that they are still in the learning phase as regards rural and agriculture finance. Once the learning phase is over, a decision will be made to go full scale into the financing smallholder farmers. The Insurance team is working on insurance products for farming as well.

3.6.4 *Agent Banking*

There are 500 agents, out of who 300 are active (90 days[61]). However, customer confidence among agents is still low and the bank is working on helping the agents to be more visible and bring awareness to the customers.

3.6.5 *Regulation*

Stringent controls have been put into place when it comes to scrutiny of bank account opening. The Central Bank has directed that there must be a face-to-face interaction before an account can be opened. In essence, a fully digitalized account opening is process not possible. Only one deposit taking account can be opened but one cannot withdraw unless they physically visit the bank.

3.7 *Century Bottling Company Limited (CBCL)*

Century Bottling Company is the officially authorized producer and distributor of Coca-Cola products in Uganda. It was noted that the company uses franchises and distributors for primary and secondary distribution. Distributors deposit into the bank before they can access the products. Customers from South Sudan have to carry cash all the way to deposit into a CBCL account in Uganda.

3.7.1 *Challenges*

Mobile money limits hinder transactions with MSMEs.

Charges on mobile money are considered to be high, and customers are not excited to use it for business transactions.

[61] 90-day Activity ratio

3.7.2 *Suppliers*

Suppliers are paid by CBCL through cheques and real time gross settlement. A number of transactions are done through the bank.

3.7.3 *Buy Uganda Build Uganda Initiative*

For dairy products, CBCL uses middlemen to source the milk. The company does not buy directly from smallholder farmers. The middlemen mostly pay cash to the smallholder farmers for them in order to ensure that they are the buyers of choice.

3.8 *MTN*

3.8.1 *International Payments*

Currently, MTN has facilities that allow mobile money-to-mobile money transactions with their counterparts in Kenya, Tanzania, Rwanda and Burundi. This is as a result of bilateral agreements between the operating companies, in which they use the prefunding model without a switch.

Tariffs are not regulated, and each company has its own tariffs.

3.8.2 *Partnerships*

Out of the 26 banks in Uganda, MTN has partnered with 23 of them to facilitate bank-to-wallet and wallet-to bank-transactions. As per prudential regulations, five (5) banks have the trust accounts, as per the law, which recommends a minimum of four (4) banks. Customers are taxed for cashing out.

3.8.3 *Fraud on Mobile money*

The most common fraudulent transactions that are reported to MTN's risk department include;

- Phishing
- Cold calling

3.8.4 *Mitigations*

- Mobile money registrations and GSM registrations are synchronized
- Biometric registration

3.8.5 *MSME Support*

- Partnership with Commercial Bank of Africa (CBA) to provide a maximum loan of US$60
- Risk lies with the bank as MTN only provides a delivery channel.
- Fees at nine (9%)

3.9 *Mowali*

Mobile Wallet Interoperability (Mowali) is a joint venture between Orange and MTN. Mowali management described it as a digital payment infrastructure which functions as an industry utility, which is open to any mobile money provider in Africa. Mowali's objective is to increase the usage of mobile money by consumers and merchants.

The team established that Mowali is ready to work with CBC and already has a solution that has been tested. The Mowali system is fully interoperable between platforms, and aims at ensuring that mobile money becomes a universal means of payment in Africa. Because it is specifically aimed at customers and merchants, it will improve trade across borders, thus improving economic development, and support the achievement of the SDGs. Mowali has implemented its system through Mojaloop, an open-source software payment platform for companies offering financial services, government regulators, and operators.

According to Mowali management, the planned CBC project can directly benefit from the reach of MTN Mobile Money and Orange Money in the entire Africa. , In the process, it will bring together over 100 million mobile money accounts, and mobile money operations in 22 of sub-Saharan Africa's 46 markets. Mowali is ready to enable interoperability among the digital financial service providers, beyond MTN and Orange operations and markets, to support the existing 338 million mobile money accounts in Africa.

Mowali works with the Central Banks to connect various monetary zones. The system can allow bulk payments to be the processed across the borders, on any network that is preferred by the MSME. Mowali uses the prefunded model and at the end of the day, each operator knows the amount of money they are either owed and owe the others, and settlement will be done later.

The system has participating players including banks and non-banks. Mobile money operators sign a contract, which has terms and conditions describing the rules, regulations and laws governing the transactions that makes it easy when it comes to dispute resolution. Technically, the Mowali platform enables mobile money transfers between operators, through a set of digital messaging services based on APIs called "Mojaloop API."

3.10 *Bank of Uganda*

The Bank of Uganda which is the country's Central Bank was established in 1966 by an Act of Parliament. The Bank is wholly owned by the government and its primary purpose is to foster price stability, and a sound financial system. Together with other institutions, it also plays a pivotal role as a center of excellence in upholding macroeconomic stability.[62]

3.10.1 *National Payments System*

Payment systems refer to the rules, procedures and mechanisms for transferring money between two or more financial institutions and their customers.

3.10.2 *Regulatory Instruments*

- The Financial Institutions Act (2016)
- The Electronic Transactions Act (2011)
- National Payment Systems Policy (2017)
- Bank of Uganda Act
- Electronic Transactions Act (2011)

3.10.3 *Digitization of MSMEs*

The bank does not have a strategy targeting MSMEs. However, other private and government entities are directly involved with MSMEs. The Central Bank is mainly involved with the national financial inclusion strategy.

3.10.4 *Challenges*

The bank anticipates the following challenges to affect the regional payment platform settlement currency:

- Exchange rate framework
- Infrastructure
- Interoperability – individual countries should have local interoperability first before they can go regional.

3.10.5 *Interoperability in Uganda*

All businesses dealing in digital payments are free to be interoperable with any partner. The Bank of Uganda plays the role of facilitating and encouraging interoperability, although this is not mandatory. Just like banks, digital financial service providers can be interoperable with any business partner.

62 https://www.bou.or.ug/bou/bouwebsite/About/whoweare.html

3.11 *FINCA*

FINCA Uganda Limited is a microfinance deposit-accepting institution in Uganda. It is licensed and supervised by the Bank of Uganda.

FINCA Uganda was licensed as a Microfinance Deposit Taking Institution (MDI) thereby becoming the first MDI to be regulated by Bank of Uganda under the MDI Act of 2003. FINCA considers itself to be an MSME bank.

FINCA Uganda is part of the FINCA Impact Finance Network, a group of 20 microfinance and financial institutions, which provide socially responsible financial services and enable low-income entrepreneurs and small business owners to invest.

3.11.1 Graduation Models

A typical FINCA model starts with a village savings group. Afterwards, they are taken through digital and financial literacy before a loan can be given to them.

3.11.2 Money transfer

FINCA Uganda offers money transfers through a number of service providers. These services allow clients to receive money faster and more conveniently from both domestic and international sources. Additionally, it does inter-country transfers within its banking network without the need of having a switch. The bank is represented in the following countries in Africa: DR Congo; Malawi; Nigeria; Tanzania; Uganda; and Zambia.

3.11.3 Digital Channels

The bank uses digital channels to offer services to its customers, including:

- Mobile money;
- Mobile banking;
- Card;
- Internet banking; and
- USSD.

3.12 Young Farmers' Federation Uganda (UNYFA)

The Young Farmers' Federation Uganda (UNYFA) is an umbrella body for young farmers in Uganda, which was launched in June 2017, and duly incorporated as member-based organization under section 18(3) of Companies Act 2012. It is composed of 54 district young farmers associations, farmer youth groups and school agricultural clubs totaling 24,000 individual young farmers.[63]

The meeting was a training program for youth. It was also an opportunity to get feedback and concerns from the young farmers. The major concern among the young farmers was lack of market linkages, and it was observed that the youth were not aware of the Buy Uganda build Uganda initiative which could be beneficial to them. The youth indicated that they would need further training on digital marketing skills, and were excited about the COMESA Biznet platform.

3.13 Ministry of ICT and National Guidance

The Ministry of ICT and National Guidance was established in June 2006, and mandated to provide strategic and technical leadership, overall coordination, support and advocacy on all matters of policy, laws, regulations and strategy for the ICT sector. It also ensures sustainable, efficient and effective development, and the harnessing and utilization of ICT in all spheres of life, with the aim of ensuring the country achieves its national development goals[64]. The ministry is responsible for regulating the information technology environment in the public and private sector. Additional roles of the Ministry include advocacy, capacity building and awareness creation.

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63 https://unyfa.org/about-us/

64 https://ict.go.ug/about-us/

3.13.1 E-Government

The ministry is working on an e-government platform. The Ministry is also responsible for putting into place a rationalized and integrated national IT infrastructure. They are targeting the e-government services in the ministries' departments and agencies.

3.13.2 MSME Support

The government is working on a national payments bill which will support regional trade. Access to the digital infrastructure will assist MSMEs access various trade information including markets and prices. The Ministry of ICT is responsible for promoting industrial research, product development, and innovation. The ICT sector is improving communication systems with over 9.9 million mobile subscribers, and increasing the number of private radio stations to improve dissemination, and access to the information that is required by MSMEs for their operations.

3.13.3 Regulation

- National ICT Policy 2014
- National E-government Policy Framework, 2011
- The Computer Misuse Act, 2011
- The Electronics Signatures Act, 2011
- The Electronics Transactions Act, 2011
- Electronics Transaction Regulations, 2013

3.14 Uganda Communications Commission

The Uganda Communications Commission (UCC) was established to implement the provisions of the UCC Act 2013 in accordance with the Laws of Uganda. The Commission's principal goal that of developing a modern communications infrastructure in Uganda, in conformity with the operationalization of the Telecommunications Policy. The primary mandate of UCC is to regulate the Communications sector, which includes telecommunications, broadcasting, radio communication, postal communications, data communication and infrastructure.[65]

The Mandate of the Commission is spread out over three entities:

- Uganda Communications Commission
- Rural Communications Development Fund
- Uganda Institute of Communications & Technology

3.14.1 MSME Support

The UCC is currently advocating for mobile money statements to be admissible for credit evaluation, when MSMEs apply for loans. The Commission is working with many women groups towards ensuring that all women have their own mobile phones and mobile money accounts.

The commission is further convinced that interoperability will drive down prices, and customers should not be held hostage by MNOs because of money in a wallet.

There is a need for EAC and COMESA to work together to come up with a workable solution for the region.

Factors to be considered are as follows;

1. Is there a requirement to have regional switches?
2. Should every country have their own switch, as countries interconnect with each other?
   This analysis, will help focus on the low hanging fruits and avoid any project duplication efforts.

The UCC also administers the rural communication access fund, which is used to deliver last mile data, and voice services to rural customers.

65 https://ict.go.ug/about-us/agencies/uganda-communications-commission/

4. Payment Infrastructure Landscape

The NPS Department in Bank of Uganda oversees the NPS with the objective of ensuring overall effectiveness and integrity of the payment systems in the country. The payment infrastructure include all the payment, clearing and settlement systems operating in Uganda, even those headquartered elsewhere but payment either originates from or terminates in Uganda.

The payment landscape include the following:

- The Uganda National Interbank Settlement System (UNISS) – Uganda's Real Time Gross Settlement system;
- The Automated Clearing House (ACH) – for cheques, direct debit and credit transfers;
- Electronic Central Securities Depository (CSD) – for government securities.
- Interswitch - offers payment card, a pan-African chip plus pin payment card which can be used at Point of Sale (POSs), ATMs, online and has additional biometric security features (fingerprint, face and voice recognition). The Interswitch infrastructure accepts VISA, MasterCard, China Union Pay, Verve, as well as other proprietary branded cards.
- Others include financial market infrastructure (FMI) that is supplied by the private sector players such as mobile money services.

	UNISS		EFTs		Mobile Money		POS	
	millions	**%Growth Y-o-Y**	**millions**	**%Growth Y-o-Y**	**millions**	**%Growth Y-o-Y**	**millions**	**%Growth Y-o-Y**
Number	0.73	-9.4	9.9	5	2.5	85.3	1.9	35.2
Value (Uganda Shilling/ US$)	352.6	15	27.9	19.9	66.9	-8.5	469.9	12.7
Value US$	Us$92,000		Us$7,300		Us$17,500		Us$123,000	

Table 33: Transaction Volume

Remittances over mobile money platforms transcend the MNO's primary jurisdictions, with international remittances now possible, and enabled by bilateral cross-border partnerships and cooperation (BoU, 2019).

Due to the importance of the payment systems to the economy, appropriate regulation is essential to ensure safety, and efficiency of the NPS. Effective regulation starts with a sound legal and regulatory framework.

4.1 Market Products

The different products and services available in Uganda are highlighted below:

Product Name		MTN Money	Airtel Money	M-Sente
MNO		MTN Uganda	Airtel Uganda	Uganda Telecom
Number of Accounts		10,000,000	8,000,000	1,200,000
MM-Market Share		66%	33%	1%
Agent Network		20,000	47,000	5,000
Registration Requirements		SIM, Form, original and copy of ID	Registered SIM	SIM card original ID
Balance & transaction limits	Max Balance	UGX500,000		
	Max transaction	UGX4,000,000 (Us$1,000)	UGX 5,000,000 (Us$1,300)	
	Monthly limit			
CICO		MTN agents, ATMs	Agents ATMs	Agents
Mobile Top up		self and others same network	self and others same network	self and others same network
Link with bank Account		available, existing account or open a savings account	available transactions only	not available
Access to credit		nano & microloans	not available	not available
P2P domestic		to registered & unregistered	to registered & unregistered	to registered & unregistered
P2Pinternational		MTN Rwanda, World Remit, M-Pesa Afro remit (Mastercard visa)	World remit and Airtime top up	not available
P2B		Available	available	available

4.2 Pricing structure for digital payments

The Short Message Service (SMS) charges are generated by mobile money transactions that are performed by the customer while roaming. The SMS charges below will apply as additional charges to the transaction fees, and will be charged from the airtime account.

Transaction type	Number of SMS's	Charge Inclusive TAX (in UShs)	Charge Inclusive TAX (in Us$)
Buying airtime	2	111	$0.03
Send MTN Mobile Money to a registered number	2	111	$0.03
Send MTN Mobile Money to unregistered mobile user	4	222	$0.06
Send MTN Mobile Money to unregistered non-mobile user	2	111	$0.03
Bill payments	4	222	$0.03

Source; https://www.mtn.co.ug/insight/mobile-money-tariffs/

Similarly, Airtel Money has specific charges for outbound international money transfers, charging up to US$ 16, to send amounts up to US$ 1,350.

5. Policy and Regulatory Aspects

The different regulatory frameworks relevant for digital payments in Uganda are highlighted below.

Policy and Regulatory	
Policy/Regulation/Directive	**Key Issues**
Bank of Uganda Act	For regulating the issuing of legal tender, maintaining external reserves and for promoting the stability of the currency and a sound financial structure
	The national payments department oversees the NPS
	BoU is in charge of approval and supervision of mobile money services.
	There is no payment systems Act
Electronic Transactions Act (2011)	The Act governs the use, security, facilitation and regulation of electronic communications and transactions;
Computer Misuse Act (2011)	The Computer Misuse Act makes provision for the safety and security of electronic transactions and information systems to prevent unlawful access, abuse or misuse;
Electronic Signatures Act (2011)	The Electronic Signatures Act makes provision for the use of electronic signatures in order to ensure that transactions are carried out in a secure environment. It establishes a public key infrastructure for authenticity and security of documents.
Anti-Money Laundering & Counter Terrorist-Financing Anti-Money Laundering Act (2013)	Have in place measures to prevent money laundering and terrorist financing (mobile money platform to have in-built mechanisms to identify suspicious transactions)
Mobile Money Guidelines 2013	"no objection" letters to the commercial banks, who partner with the MNOs

6. Pictorial Focus

Graca Machel women

Young Farmers` Federation of Uganda

Graca Machel women

Young Farmers` Federation of Uganda

Figure 35: Pictorial Focus- Uganda

APPENDIX 5: RWANDA

1. Macro-economic Overview

Rwanda has enjoyed consistent economic growth and is in the top five fastest growing economies in Africa. The economy relies on the agriculture sector which accounts for 63% of export earnings. Other leading sectors include energy, hospitality, and financial services. The services sector, including tourism generates almost half of the country's GDP, which has grown at an average annual rate of around 80 percent in the recent years. Rwanda has a reported population of 12.1 million, with a nominal GDP of U$9.1 million (National Institute of Statistics Rwanda, NISR).

Mobile penetration is more than 78.1% (2019)[66] Internet penetration at 60.4% (2019)	Limited access to traditional banking methods i.e. cards & bank accounts Formal bank accounts at 37%	Median age of 20; an entire generation has grown up with mobile payments

Figure 36: Key Statistics- Rwanda

2. Observations from MSMEs in Rwanda

2.1 *The MSME Profile*

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business. This approach is useful in understanding entrepreneurial densities across these classes. Thirty-six (36) respondents participated in the study in Rwanda.

2.2 *Demographic Profile*

According to Figure 38, a majority of the respondents (56%) were male. As concerns age, 31% of the respondents were classified as youth, i.e. under the age of 34, with a significantly higher proportion of adult respondents (69%).

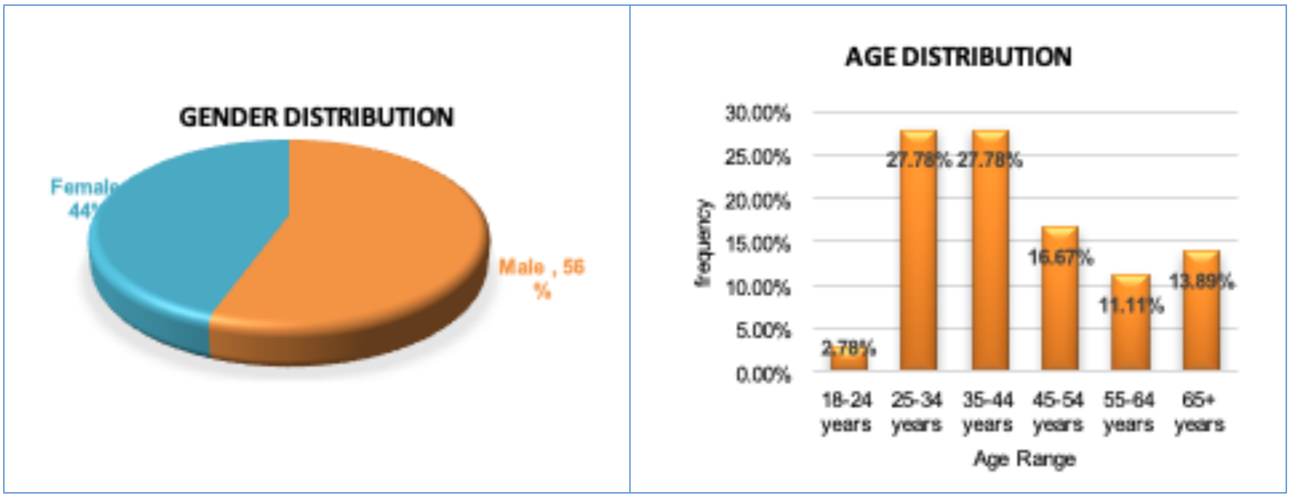

Figure 38: Gender and Age Distribution: Rwanda

With regard to the level of education, a higher proportion of the MSMEs (83%) had been educated up to secondary level (Figure 39), which is reflective of the high literacy levels of the respondents. The balance of the respondents was split evenly between vocational and tertiary education, with the lower percentage of respondents with vocational and tertiary education, which reflects limited formal employment opportunities

[66] https://rura.rw/fileadmin/Documents/ICT/statistics/ICT_Quarterly_Statistics_report_as_of_December_2019.pdf

available to them. In respect to the reasons for starting a business, a higher proportion of male respondents (85%) considered themselves entrepreneurial, in comparison to 67% of female respondents. The high prevalence of respondents who had been educated up to secondary level, and who own micro level businesses maybe reflective of lower formal employment prospects for that group of individuals.

An analysis of the gender dimension in Rwanda showed that the female MSMEs were most likely to be involved in agriculture (44%), and retail and wholesale (56 %). None of the women considered themselves to be cross-border traders. In comparison, 70% of the males were in agriculture, 25% were in retail and wholesale, while only five (5%) considered themselves as cross-border traders.

Figure 40: Tax Registration- Rwanda

In terms of how the businesses were structured, the respondents indicated that most of the businesses were sole proprietorships, which was suggestive of a more informal business structure. Similarly, over 40% of the respondents indicated that their businesses were formally registered for tax. About 78% of the respondents had been in business for over three (3) years, with a half (50%) of them remaining micro, 46% small enterprises, while four (4%) were in the medium category. This is in comparison to 22% of the MSMEs that had been in business for between 0 and 2 years, which were all in the micro category.

A majority of the respondents (81%) were based in rural Rwanda, and 19% were in urban areas. A further look at the sectoral distribution of the respondents shows that 66% of the respondents were in agriculture, and 34% of those in retail and wholesale were all based in rural areas. This is in comparison to the finding that 29% of all urban based businesses were in agriculture, 57% in retail and wholesale, while the remaining 14% were involved in cross-border trade. It is important to note that the survey was done in a rural town.

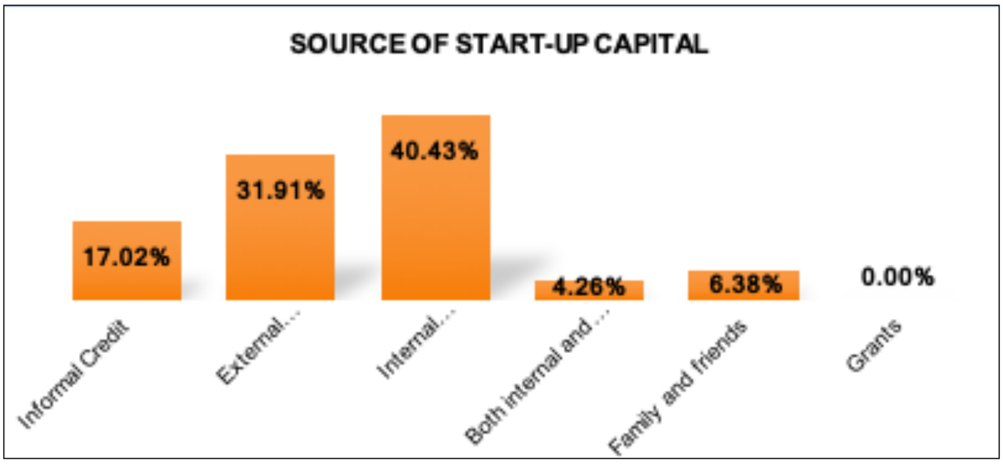

Figure 41: Sources of Start-up Capital-Rwanda

2.3 *Trade and Ecommerce Facilitation*

As regards financing of their businesses, 40% of respondents reported they started their businesses using their own savings, six (6%) got assistance from family and friends, 17% from informal credit facilities, and four (4%) used both internal and external funds, inclusive of informal credit sources. Furthermore, the study revealed that 94% of the respondents had transacting accounts, which was fairly consistent across the genders. The study sought to establish the MSMEs' levels of satisfaction with the transacting accounts, to which 61% of the respondents indicated that they were at least satisfied with the services they were getting from their business

bank accounts, 81% were at least satisfied with their personal accounts, whilst 89% were at least satisfied with their mobile money accounts. The respondents also indicated that although they had bank accounts, mobile money was their preferred method of payment, with 50% of the respondents using of mobile money.
The distance between the MSME owners and the nearest financial services center, be it a mobile money agent or bank branch, affects business as it could increase the cost of financial services. In a bid to access financial services, 61% of the respondents travelled less than a kilometer to be served, while 33%, travelled between 1 - 5kms to get financial services, and six (6%) travelled between 5-10 kilometers.

In terms of the mobile technology, 42% of the respondents were using smartphones, and 58% were using basic feature phones. This indicates that market information could easily be shared with MSMEs via applications. The use of applications and social media on smartphones opens up new markets for MSMEs. Customer records could be saved on the smartphone, orders taken via the same mode. As concerns local trade, 72% of the MSMEs preferred being paid before the delivery of goods and services. Similarly, 42% of the MSMEs indicated that if they engaged in international trade, they would expect to be paid before delivery, while 11% preferred being paid immediately after delivery, and another 39% wanted payment to be done instantly.

2.4 Market Penetration and Access

In analyzing their markets, 25% of the respondents indicated that they were export oriented, 28% traded within their municipality of operations, 31% went further into the province, and 16% traded countrywide. The study shows that 25% of the respondents were members of trade associations, while 72% were not affiliated to any association. In terms of using associations, 42% of the MSMEs indicated that they used the associations to access both internal and foreign markets, while 56% did not consider the associations as essential.

Some MSMEs (28%) indicated that they used unregistered middlemen to access markets and while 61% did it alone. A gender analysis of the use of unregistered middlemen showed that 38% and 20% of females and males respectively used middlemen. Studies have revealed that most women use middlemen in an attempt to avoid bad treatment at most customs offices in cross border trade.

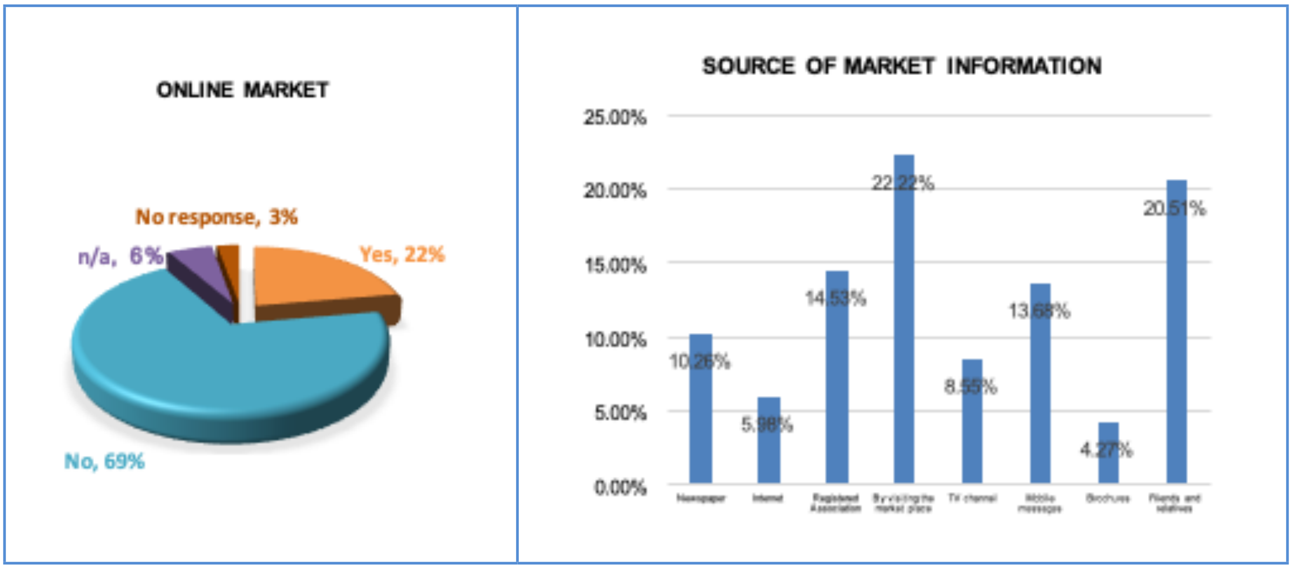

Figure 42: Online Market and Market Information - Rwanda

As shown in figure 42 above, 22% of the respondents indicated that their products could be ordered online, while 69% indicated that their products could not be ordered for online, and six (6%) thought the question was not applicable to their business. Concerning international trade, only 14% of the MSMEs indicated that they used digital platforms to engage in cross-border trade, with 83% reporting that they did not use the platforms. On the probability of ordering inputs online and paying for them digitally, three (3%) indicated they would consider doing so, although 100% of the MSMEs bought their inputs locally, 11% would not, three (3%) did not know, while 83% needed more information. With regards to digital trade, 11% of the respondents indicated they would consider selling and receiving payments digitally, while 83% reported that they would need more information before they could make a decision.

The study equally sought to understand whether MSMEs would use mobile payment solutions in cross-border trade, 86% indicated they would most likely use mobile payment solutions in conducting cross-border trade, six (6%) would not, and eight (8%) were not sure. Out of those that were most likely to use mobile payments, 13% of them indicated they used the mobile payment solutions because they thought they were affordable. With respect to the cost of mobile payments, six (6%) of the respondents considered mobile payments in business to be expensive while the majority, 94%, believed they were affordable. Concerning the important Value-Added Services (VAS) that MSMEs would want to see on their mobile platforms, 21% of the respondents cited bank statements 20% were for commodity price information, currency exchange rates (20%), product focus demands (19%), while 20% wanted to see credit worthiness statements.

3. Stakeholder Consultation meetings

3.1 *Ministry of Finance and Economic Planning*

The CBC briefed the Ministry of Finance and Economic Planning on the DFI project, emphasizing the need to include the MSMEs. During the discussion the Ministry observed that it was already working on awareness campaigns in respect to financial inclusion. The Ministry further pointed out that the MSMEs appreciated the benefits of the. It was noted that although they were campaigning for it as an awareness project for MSMEs, their main interest was related to the broadening of the tax base, and enhancing domestic revenue mobilization.

3.1.1 *Background*

Rwanda's long-term development plan, sought to transform Rwanda into a middle-income country, and an economic trade and communications hub by the year 2020. An effectively functioning financial sector is fundamentally important and an essential element for achieving this objective. Rwanda seeks to develop a financial sector that is effective, in particular, by:

- Expanding access to credit and financial services;
- Enhancing the mobilization of savings, especially long-term savings;
- Mobilizing long-term capital for investment;

The Ministry of Finance and Economic Planning is mainly concerned about visibility of businesses from informal traders to large corporates. The ministry is convinced that once all businesses are visible, the tax base is widened and resulting in increased domestic resource mobilization. This can only be done through digital inclusion of all businesses, from registration, to access of financial services.

The Ministry has a national financial education strategy that is aimed at deepening and broadening the financial literacy of Rwandans.

3.1.2 *Trade facilitation*

The African Export-Import Bank (Afreximbank) and the Development Bank of Rwanda (BRD) have signed a facility agreement for a $10 million Afreximbank line of credit to support BRD's efforts to finance trade diversification, and promote value-added exports in Rwanda's productive sectors. This initiative is expected to extend to MSMEs.

3.1.3 *Rural and Agricultural Financial Services Strategy*

The Government of Rwanda is implementing a set of reforms to enable the country to evolve from subsistence agriculture and food insecurity, towards market-oriented agriculture. This is mainly targeted at ensuring sustainability in production of the smallholder farmers, and make them realize that farming is a business.

3.1.4 *Building an Inclusive Financial Sector in Rwanda (BIFSIR)*

This project which is funded by UNDP is aimed at contributing to capacity building of the various microfinance sector players at the macro, meso and micro levels. This is done with a view of supporting the development of sustainable, quality and diversified financial services that are accessible to the less advantaged Rwandans both in rural and urban areas, and to improve their economic and social status. The project is aimed at youth and women as well.

3.2 *R-Switch*

The R-Switch briefed CBC that it is the local switch, and has been requested by the Central Bank to champion the interoperability project in Rwanda. It was established that R-Switch is a card issuer and acquirer.

RSwitch is the national e-payment switch of Rwanda. RSwitch is mandated to enable electronic payment settlements, interoperability, and other financial solutions in Rwanda. The company which was established in 2003 with the vision of running Rwanda's electronic payment system, has over the years expanded to serve as a financial interoperable solution company.

RSwitch runs the SmartCash brand local scheme of debit cards currently issued by banks in Rwanda. The MFIs and SACCOs are also being on-boarded on the scheme. With the SmartCash card, customers are able to do transactions on ATM, POS and online.

3.2.1 *Interoperability*

RSwitch has a developed an interoperable platform known as eHuriro, which facilitates banks, mobile network operators, and microfinance institutions to electronically move money amongst each other, thus enabling individuals to access their finances using either a card, mobile phone, or online application to transact on ATMS, POS and/or make transfers to bank accounts or mobile wallets.

3.2.2 *Transaction Processing*

RSwitch's processing system coordinates the flow of various transactions among financial institutions, merchants, and customers. RSwitch's transaction processing covers debits, balance enquiries transfer, and settlements among others, thereby increasingly reducing the cost of payment services to financial institutions, and ultimately to customers.

RSwitch is a certified third-party processor that manages switching and transaction processing for major payment schemes, such as VISA and Union Pay International.

3.2.3 *Cross border e-money*

RSwitch system currently supports the connectivity of MNOs to manage cross-border interoperability between card and mobile.

3.2.4 *Challenges*

- International payments face settlement challenges in terms of currency as well as on the implementation side.
- Charges are not harmonized or controlled. Each bank charges its own fees.

3.3 *Equity Bank Rwanda*

Equity Bank Group focuses on extending inclusive financial services especially to the underserved populations in Rwanda.

3.3.1 *Access to finance*

Eazzy Loans – these are loans that are open to all Equity Bank customers in Rwanda. Initially, they were salary based. At the moment, they use an algorithm, and are open to all customers, including the MSMEs

3.3.2 *MSMEs Strategy*

Equity is now investing massively into MSMEs access to finance programs after realizing that Eazzy loans may not be sufficient for business.

The bank has a department that focuses on MSMEs, as well as farmers who need seasonal loans. Equity Bank assists MSMEs, while taking into account that they do not have real collateral to get loans. It should further be noted that 60% of the banking industry favors corporates.

The bank has an agent network, which is used to access rural and other locations where it may be costly to open a bank branch. It has about 2,500 agents. Equity Bank has established strong network of agents at the borders and the number one target is DRC border which has substantial economic activities.

3.3.3 *Digital inclusion*

Equity is now linked to all mobile money operators. Transactions can be done on both the application and USSD. The banks ATMs are now cash out points for mobile money', as well as mobile banking. A customer can withdraw cash without an ATM card, but with a phone.

Equity Bank was briefed on CBCs' DFI plan and the status of the project. In response, Equity Bank highlighted the following initiatives regarding DFI.

- ✓ Equity Bank has an Easy Pay service to facilitate purchases.
- ✓ Equity Bank has an Easy forex service for customers to get current forex rates instantly. This initiative incorporates different MNOs such as Safaricom, Airtel and MTN who can tap in, to do intra network transactions.

3.4 *SKOL Brewery*

In the introductory engagements, CBC highlighted the main purpose of engaging bigger companies that have a huge presence in Africa. It was pointed out that such companies assist the whole supply chain, down to the bottom of the financial pyramid in terms of payments.

SKOL Brewery explained that they are present in many African countries, and Rwanda produces and distributes to Burundi and DRC market. There are two (2) SKOL distributors in Burundi and one (1) in DRC.

3.4.1 *Payments*

Payments from distributors and agents are done through cash and cheques. The distributors deposit cash or cheques into the Skol account before they can receive products. About 80% of their transactions are done through the bank, where 20% are cheques.

Skol breweries pays through the bank, including payments to their casual employees.

There are no backward integrations with local smallholder farmers on the barley value chain, because it is imported from Europe.

On the rice value chain, payment is done through the bank to the cooperatives who represent the farmers, in turn, the cooperatives pay out growers using cash. When rice is imported, it is also done through traders who are paid using the bank. In terms of payment modalities with the distributors, the banking system in DRC is not reliable, and payments are usually done through cash. It was further noted that the banking system is Rwanda is well matured.

3.5 *National Bank of Rwanda – National Payment Systems*

Payment systems consist of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money. It is the infrastructure that provides the economy with the channels for processing payments that result from all the economic activities that take place between economic agents, from payment initiation and exchange of value, to settlement or payment finality. Rwanda Integrated Payment Processing System (RIPPS) has been put into place to reduce time lag in payments, and notably to mitigate systemic risk in Rwanda's financial system of. RIPPS goes beyond borders to facilitate trade in the EAC and the COMESA region. RIPSS has been upgraded to enable linkage to regional cross-border payment systems, namely the COMESA Regional Payments and Settlement System (REPSS) and the East Africa Payment Systems (EAPS).

The meeting with National Bank of Rwanda focused on the core technical issues regarding payment systems. In an effort to achieve a successful implementation, the following design aspects of the payment system were raised in the meeting:

- The payment system should be fast in terms of settlement, while taking into account the fact that instant and hybrid channels are penetrating the market. A typical example is the Mastercard.

- Use of existing platforms is encouraged. There is no need for re-inventing the wheel because a lot of duplications are currently taking place. Instead, there is a need to focus on Value Added Services to make life easy for MSMEs.
- There is a need to appreciate and leverage on the initiatives that are being implemented by African Association of Central Banks (AACB).
- The regulatory framework is almost the same in most payment systems.
- There is a need to focus on interoperability issues revolving around various stakeholders of the project.
- The National Bank of Rwanda has revamped R-Switch to accommodate mobile based platform interoperability.

There are different kinds of channels for payment systems in the region as follows

- SWIFT – Using correspondent banks.
- EAPS (East Africa Payment System) – Using the respective RTGSs of countries.
- Regional Initiatives such as REPSS.
- Initiatives driven by private players such as express cash by Eco Bank,
- Rwanda has a national payments strategy
- Instant payment with some prefunded system initiated by customer, can be one kind of model with a problem of liquidity
- Liquidity problem will be resolved if the Central Banks are used as correspondent banks.
- Absence of a regional Central Bank will be an issue when it comes to the mitigation of fraud and security problems
- East Africa Payment System 1(EAPS 1) was established by linking all the RTGSs in member countries such as that of Target 1 (EU's payment system). Under EAPS 1, there is no regional Central Bank, even if bank switches are available and the settlements are done in local currencies.
- East Africa Payment System 2 (EAPS 2) is anticipated to have a single currency like that of Target 2 of EU. There is an ongoing initiative to hire a consultant to set up a switch on mobile payment

3.5.1 *NPS Stakeholders*

Stakeholders include banks and other financial institutions such as microfinance institutions, telecommunication companies, and capital market Intermediaries and the related regulatory agencies, PSPs, as well as the operators of the payment and settlement systems.

Regulation: The Parliament of the Republic of Rwanda's Law No. 03/2010

Policy: Rwanda National Payment System Framework and Strategy (2008), Interoperability Blueprint Rwanda 2018

Mobile money operators are regulated by the Central Bank as PSPs. There are three MNO-led PSPs that are licensed by BNR, thus: MTN Rwanda, Tigo Rwanda and Airtel Rwanda.

3.5.2 *Challenges*

- Technology is developing faster than regulation, there is therefore need for regulation to catch up.
- Settlement is taking longer than what businesses expect

3.6 *Rwanda Information Society Authority (RISA)*

The Rwanda Information Society Authority is at the forefront of all project implementation, research, infrastructure and innovation within the ICT sector in Rwanda. In partnership with other stakeholders, RISA digitizes government services and ensures easy access by the citizens. The Authority's mission is to digitize the Rwandan society, through the increased usage of ICT as a crosscutting enabler for the development of other sectors.

Currently, RISA is working on a program that is aimed at mainstreaming ICT in the rural areas, among others using the ICT Buses. Its main aim is to bridge the digital divide in rural communities by providing basic training and access to ICT services by the rural based entrepreneurs, farmers, traders, and communities. The key target areas are those that lack access to power and connectivity. A rural farmer or entrepreneur will easily access the services they need that are within their vicinity more conveniently, instead of travelling for a long distance to find the services. There are currently four buses with one bus operating in each province in Rwanda.

The Authority champions the implementation of "Smart Rwanda Master Plan" initiatives. The following is the country level data and some of the initiatives that are being carried out in Rwanda under RISA supervision:

- ✓ Mobile penetration has grown to over 77%
- ✓ 4G network has reached to more than 73%
- ✓ Internet services have reached 52.6%
- ✓ Focus on technology usage for government services
    - o All government payments are now being done using digital platforms.
- ✓ Cybercrime law have been developed
- ✓ Research and development

3.6.1 *MSME Support*

The CBC discussed the Digital Financial Initiatives (DFI) project with RISA, and highlighted the fact that there was need to focus on MSMEs using DFIs, because informal traders are not adequately taken care of by the financial services industry. It was established that the Rwanda – DRC (Goma - Rubavu) border is the busiest border in the world, in terms of economic transactions, run by informal traders.

The Authority drew the following points, with regard to the possible role of RISA in Alipay, if it will be implemented in Rwanda.

- ✓ RISA will be involved in defining the components and platforms
- ✓ RISA will also be involved in the integration of the payment system, logistics, storage and capacity building

The model for Alipay seamless payment solution is proposed to be as follows:

Alipay - with primary switch

Local switch (R-Switch, which enables electronic payments settlements)

Potential and anticipated challenges in the event that Alipay has been implemented in Rwanda include the following:

- ✓ The level of understanding between international and local teams may not be balanced.
- ✓ Custom processes for the transaction of goods through the system
- ✓ Logistical issues on how to deliver the goods which are ordered online
- ✓ Return policy for the goods that will be delivered and not meeting customer expectations.

3.7 *KCB Bank Rwanda PLC*

The Bank has a DFI project that targets MSMEs and the informal sector. It acknowledges that the MSME businesses are growing at an increasingly high rate. The bank indicated that their business is structured as follows:

- Agri-Business and MSME Banking constitutes 20% of the entire KCB Rwanda Bank portfolio
- Mortgage banking constitutes 30%
- Personal, corporate and special banking schemes constitutes 50%

3.7.1 *Settlement*

Regional payments are processed through SWIFT and EAPS. In respect of transfers that are made within KCB, these are settled instantly through the KCB platform. Exchange rates are predetermined and can be negotiated as well.

3.7.2 *Partnerships*

There are partnership arrangements that facilitate lending and savings products for MSMEs.

Maximum borrowing from the mobile wallet is US$ 1000.00 which is unsecured. The Bank has currently partnered with one mobile money wallet, and is working on partnering with the rest soon.

Partnerships with other MNOs is already in place for money transfers, and bank to wallet transactions.

3.7.3 *Agriculture*

Smallholder farmers and MSMEs can open accounts on their phones and make deposits. Borrowing can also be done through the phone.

The account will only be active when the account holder presents KYC documents to a KCB branch.

Access to finance for smallholder farmers is structured in such a way that, repayments start at the end of the season, through digital platforms.

The Bank also links farmers to markets. The bank offers loans to aggregators as well, to enable them pay farmers on delivery. Farmers are further required to go through financial literacy training before they can access the funds.

The bank also uses aggregators in financial transactions including Cellcom.

The bank is integrated with all Mobile money providers in Rwanda, which was done through an aggregator.

3.7.4 *MSME Support*

The bank indicated that they engage with traders in the following ways:

- Agricultural traders taking their products to DRC;
- Coffee traders taking their goods to Mombasa; and
- Flowers and vegetable traders. Most of these traders operate at the Rubavu and Goma borders

The bank has also set up different initiatives to support the MSMEs in Rwanda as indicated below:

- Partnership with Mastercard is in place
- There is always customized support for their customers depending on the value chain
- Assistance in the form of market analysis may also be given
- A total of 300 agents provide banking services including MSME support
- The percentage of distribution of agents is 50 – 50 in both rural and urban areas
- Adequate attention is given for women and youth

In terms of training MSMEs, KCB has an initiative called Biashara club, where various trainings and consultancy services including corporate governance, success, taxation, and accounting among others are provided.[67] They are looking forward to work with CBC during MSMEs training time.

[67] https://ke.kcbgroup.com/business/clubs/biashara-club

3.8 *Private Sector Federation (PSF)*

The Private Sector Federation (PSF) Rwanda is a professional organization, which is dedicated to the promotion and representation of the interests of the Rwandan business community. It is an umbrella organization that brings together 10 professional business chambers in Rwanda. These are:

- Agricultural chamber
- Industry chamber
- Commerce & Services chamber
- Financial Institutions chamber
- Labor Professions chamber
- Tourism chamber
- ICT chamber
- Young Entrepreneurs chamber
- Women chamber
- Arts and Crafts chamber

Its vision is to ensure prosperous businesses for Rwanda, while its mission is to represent the interests of the private sector, by providing innovative services for growth and professionalism of member enterprises towards sustainable private sector led development. The Federation participates in regional and international trade fairs, investment seminars, and missions with the aim of contributing to national image building, and the generation of private investments. PSF engages the government with regard to policy issues on tax and other incentives to the private sector through policy advocacy.

The Foundation was briefed on the CBC DFI plan emphasizing on the need to ensure the financial inclusion of the MSMEs. During the discussion, PSF indicated that it works closely with the association of freighters, transport companies, manufactures and exporters. It further pointed out that youth and women own a majority of the businesses within the agriculture value chain, which comprises coffee, tea, horticulture and meat production. Additionally, PSF regularly organizes trainings and capacity building programs to support the MSMEs.

3.9 *Imbaraga and training of MSMEs*

Imbaraga is National Farmers Organization that works towards improving the socio-economic conditions of an estimated 27,300 farmers, in 25 out of 30 districts across the country. It is now a registered Non-Governmental Organization (NGO), which was initially created as a trade union. Its main areas/sectors of intervention include: capacity building; sustainable productivity; access to markets; lobbying and advocacy; environmental conservation; and nutrition. Imbaraga trains farmers on how to attain sustainability in production through the Farmer Field School (FFS). This includes training on environmental conservation initiatives such as agro-forestry and anti-erosion mechanisms.

Livestock farming is another initiative that farmers are trained on, and this is done by experts in the field. These trainings are aimed at improving livestock quality, as well as increasing the number of farmers. Environmental protection is another key focus area, whereby farmers are encouraged to use green energy.

It was established that e-GRANARY aimed to empower members economically through value addition, market access, access to affordable financial services and use of technology leveraging mobile tech.

The project is funded by International Fund for Agricultural Development (IFAD) and East Africa Farmers Federation (EAFF) is responsible for the project coordination at EAC region. The aim of this Project is to improve the income and living conditions of smallholder farmers in Tanzania, Rwanda and Uganda.

3.10 *Rubavu Border Visit*

Imbaraga has a network for MSMEs that are on the ground at all borders of the country. A training of 31 MSMEs was conducted at Rubavu Border post. The training went on well with a brief introduction of the CBC and its services in the region. Imbaraga also wanted to work in close collaboration with CBC especially at MOU level. The videos, photos and PowerPoint for the entire mission can be downloaded from the following link:

https://drive.google.com/open?id=1F-prHUj772aJNTdWk48zkxtequblY4r6

At the end of training, a visit to the Rubavu market was done to witness the magnitude of business activities, at the world's busiest border between Rwanda and DRC.

4. Payment Infrastructure Landscape

Since 2018 Rwanda has been upgrading its payment infrastructure in all aspects of the economy. The upgrades imply that all government agents, departments and ministries can make payments to the central bank online. The government of Rwanda acknowledges the fact that developing an interoperable retail payment system requires the set-up of an interoperable scheme and switch, which has been referred to as the Rwanda National Digital Payment System (R-NDPS). The R-NDPS is the overall scheme, which comprises of not only the technology / switch, but also the broader set of rules, processes, and standards for the implementation of the switch.

Rwanda Integrated Payments and Processing System (RIPPS) encompasses the ACH, the RTGS and the Central Securities Depository (CSD), all of which run on the same platform. RIPPS which is a systemically important system, processes all high and low value interbank transactions. A failure could trigger disruptions, both at national, and cross-border levels because it is linked to the East African Payment System (EAPS) and Regional Payments and Settlement System (REPSS).

Retail Payment Systems includes payment card transactions, switches, and mobile payment schemes. Retail payment systems handle a large number of payment orders of low value.

Payment systems operators are entities that operate/own payment systems, and include the Central Bank, commercial banks, micro finance institutions, switches, and telecoms, among others. Bank of Rwanda sets licensing requirements to operate payment and settlement systems, which refer to laws and regulations.

Payment Services Providers are any entities providing services that enable cash deposits and withdrawals, execution of payment transactions, issuing and/or acquisition of payment instruments, money remittances and any other services functional to the transfer of money.

Payment instruments: Rwanda's payment instruments comprise of paper and electronic instruments that facilitate transfer of funds in the market. Examples of these instruments include cheques, EFT, debit and credit cards, mobile money among others.

Rwanda's banking system is connected to the EAC through the East African Payment System (EAPS) for cross-border, bank-to-bank, and wholesale transactions. For retail transactions, Rwanda's NPS is connected to regional and global payment platforms through RSwitch, MasterCard and Visa to allow transactions to occur outside of Rwanda's borders. Cross-border mobile transfers are emerging through bi-connections between MNOs or via aggregators at the regional level.

5. Policy and Regulatory Aspects

The Government of Rwanda has enacted laws and promulgated policies that are aimed at promoting digital financial services, over cash transactions. Mobile money has played a key role in Rwanda to reduce financial exclusion.

Policy and Regulatory	
Policy/Regulation/Directive	**Key Issues**
National Bank of Rwanda (BNR)	BNR oversees all payment and securities settlement systems
	Licensing of payment system operators.
	Article6,4 of Law No 55/2007 of 30/11/2007 outlines national payments systems oversight as one of the key functions of BNR
	There is no payments system Act
Rwanda Utilities Regulatory Authority (RURA)	RURA mandate is to license, monitor and enforce license obligations.
Anti-Money Laundering & Counter Terrorist-Financing KYC	Have in place measures to prevent money laundering and terrorist financing (mobile money platform to have in-built mechanisms to identify suspicious transactions)

6. PICTORIAL FOCUS

Rubavu Border

Rubavu Border MSMEs

Imbaranga MSMEs

Rubavu Border MSMEs

Figure 43: Pictorial Focus - Rwanda

APPENDIX 6: ZAMBIA

1. MACRO-ECONOMIC OVERVIEW

With a population of 17 million, Zambia's economic growth remains well below levels seen earlier this decade, and was estimated to increase by 3.7% in 2018 (IMF, 2019). This is notwithstanding the rapid-scaling up of public investment to address the country's infrastructure needs. The reported GDP at market prices in 2018 amounted to US$ 292 million IMF, 2019).

The country recognized that DFS can make financial inclusion less costly for financial service providers and consumers, and it was among the first set of countries to allow non-banking payment service providers to be part of the payment eco-system. It is estimated that developing countries could collectively save 0.9% to 1.1% of GDP, which is equivalent to $220 billion to $330 billion annually (IMF 2017), by introducing digital systems in government. Digital systems increase efficiency and reduce the probability of leakages occurring.

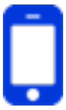		
Mobile penetration is more than 99.1% Internet penetration is at 53% Access to internet Services by households is at 17.7%[68] Females with internet access at 13.2% ICT contribution to GDP 1.2% (2016)	Limited access to traditional banking methods i.e. cards and bank accounts Formal bank account at 35.83% DFS Usage is at 67.2%	Median age of 16.8; an entire generation has grown up with mobile payments

Table 34: Key Statistics Zambia

The Government of Zambia has over the past few years come up with various reforms and programs aimed at enhancing the performance of the DFS sector. Between 2004 and 2015, the Government formulated and implemented a Financial Sector Development Plan (FSDP) in two successive five-year cycles from 2004 to 2009, and from 2010 to 2015. The aim of the FSDP was to address weaknesses in the Zambian financial system, with a focus on legal reforms, corporate governance, payment systems, market efficiency and contractual savings, financial education, and access to finance and financial markets. Zambia has developed other development strategies and policies on the basis of the inaugural documents. The overall strategic guidance and coordination of the financial sector in Zambia is done by the Ministry of Finance through the National Financial Sector Development Policy (2017), and the National Financial Inclusion Strategy (2017 - 2022), whose vision is "to achieve universal access to and usage of a broad range of quality and affordable financial services".[69]

1.1 *OBSERVATIONS FROM MSMES IN ZAMBIA*

1.1.1 *The MSME Profile*

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business. This is useful in understanding the entrepreneurial densities across these classes. Apart from the informal cross-border traders who interacted with the team at Tunduma-Nakonde border, there were eight (8) MSME business owners under this study in Zambia. All respondents where females who were affiliated to Zambia Federation Association of Women in Business (ZFAWIB).

[68] https://www.zicta.zm/Downloads/publications/2018%20ICT%20Survey%20_%20Preliminary%20Report.pdf

[69] https://www.boz.zm/financial-sector-development.htm

1.1.1.1 *Limitation*

The limitation of this study was that the sample was small. This is however not new in purposive or judgmental sampling techniques which enables researchers to use their judgment to select subjects that will best answer research question(s) and meet the set objectives. In as much as the samples cannot be considered to be statistically representative of the total population, it was observed that the findings were quite similar to other studies carried out on the related subject matter[70].

1.1.2 *Demographic Profile*

The respondents were all adults, with no youth under the age of 34 as reflected in fig 28 below. A half (50%) of the respondents were aged between 45 and 54 years, 25% were between 55 - 64 years of age, and about 25% were over 65 years. Non-participation of the youth (age between 18 to 34 years) in the study was an issue of concern. However, this is more a reflection of the association from where the respondents were drawn from, rather than the overall country representation.

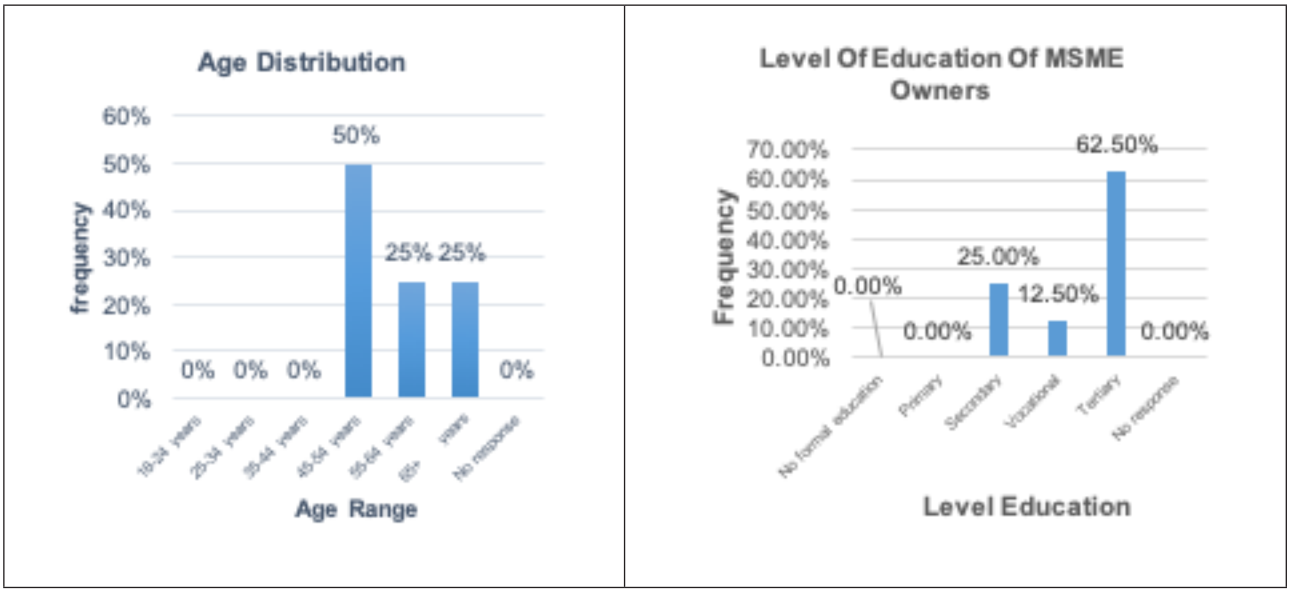

Figure 44: Age and Level of Education - Zambia

With regard to education, all the respondents were educated up to secondary level, with 63% of them having received tertiary level education. In terms of amounts invested in the business, 75% of the MSME owners invested less than US$50 in their business start-up, while 25% spent between US$51 and US$100.

As concerns the intention/motivation for starting a business, 62% of the respondents' had entrepreneurial intention when they started, 25% started them out of desperation, while 12% did not respond to the question. The fact that 62% of the MSMEs had entrepreneurial orientation is encouraging in this study because such owners are more likely to put effort into growing their businesses by taking advantage of opportunities available in the market. These are the people who are most likely to embrace the new platform if they think it will improve their bottom line.

The majority of the respondents, at 88%, were sole traders, with the remaining 12%, being in partnership.

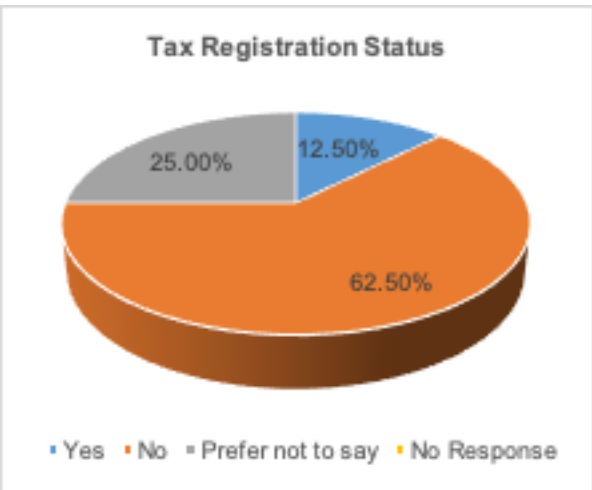

Figure 45: Tax Registration Status - Zambia

70 Time for a new deal Social dialogue and the informal economy in Zambia: The Informal Sector in Zambia: Can it disappear? Should It Disappear?

As shown in figure 29, only 12.5% of the respondents indicated that they were registered for tax payment purposes. In terms of years in operations, the study revealed that 88% of the businesses had been in existence for over five (5) years, and 12% for less than a year. Despite the high percentage of businesses that had operated for over five (5), all of them had remained micro over this period. With regard to sectors, the respondents were primarily in retail and wholesale (37%), cross border trading (37%) and agriculture (25%).

1.1.3 *Trade Facilitation and Ecommerce*

Figure 30 demonstrates the scarcity of external funding sources i.e. formal credit or equity, for the respondents, with most MSMEs getting their funding either from their own savings (44%) or family and friends (56%). The drawback to this is that it takes time for MSMEs to accumulate sufficient savings to be able to scale-up their operations. As a result, although most of the respondents had been operating for more than five (5) years, they had relatively remained at a micro-level.

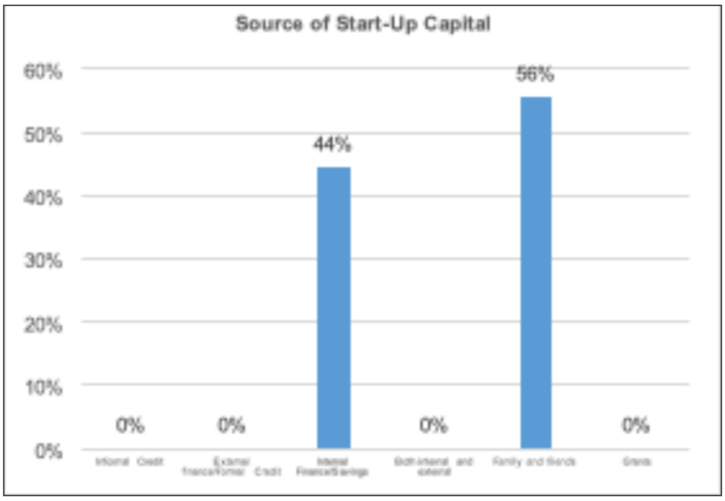

Figure 46: Sources of Capital - Zambia

Similarly, in order to be able to participate in trade, a transaction account is a useful starting point. The MSMEs with accounts can trade with customers through e-commerce platforms by sending goods through a logistics company or agent with the customers depositing the money into an account from their place or country of residence. Of the respondents, 87% indicated they had a transacting account, a factor that was reflective of a high level of financial access amongst the MSMEs.

In terms of satisfaction with their transacting accounts, 76% indicated that they were at least satisfied with the services they were getting from their business bank accounts, 88% were at least satisfied with their personal accounts, while100% were at least satisfied with their mobile money accounts. Interestingly, although the respondents indicated that they had bank accounts, cash was the preferred method of payment with, 53% of the MSMEs preferring cash, as opposed to 47% who preferred mobile money.

In order to access financial services, 88% of the respondents travelled less than a kilometer to be served, while 12%, travelled between 1 - 5kms to get financial services. As concerns local trade, 75% of the MSMEs preferred being paid immediately after delivery of goods and services. Similarly, 63% of the MSMEs indicated that if they were to engage in international trade, they would expect payment immediately after delivery, while 37% preferred to be paid before delivery.

1.1.4 *Market Access and Penetration*

As regards market access and penetration, none of the respondents were export oriented, with 75% indicating that they traded within their municipality of operations, and 25% traded countrywide. The study shows that 88% of the respondents were members of trade associations, and 12% were stand alone and not affiliated. All respondents whose businesses were at least three years old, indicated that they belonged to a trade association.

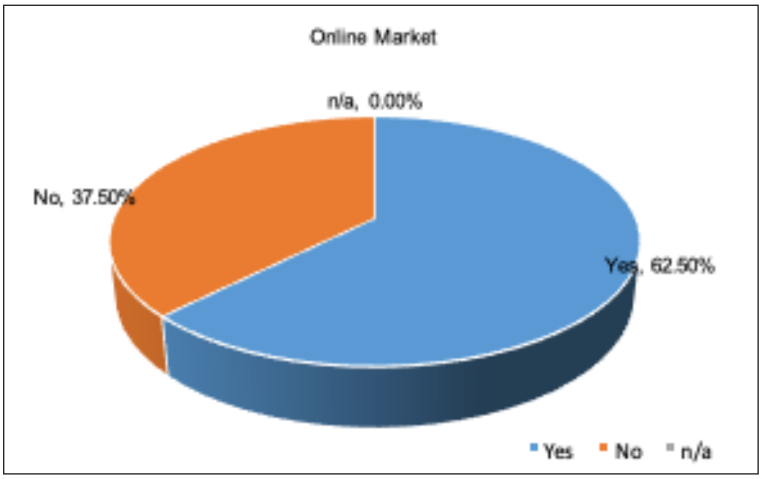

Figure 47: Online Market Penetration - Zambia

Concerning the benefits derived from being part of an association, 37% of the respondents indicated that they used the associations to access both internal and foreign markets, while 63% thought they were not necessary. None of the MSMEs used unregistered middlemen to access markets.

As shown in figure 31, about 63% of the respondents indicated that their products could be ordered online. With regard to international trade, only 12% of the respondents reported that they used digital platforms to engage in cross-border.
On the probability of ordering inputs online and paying digitally, all respondents indicated they would consider doing so, despite the fact that all the respondents reported that they bought their inputs locally). With regard to digital trade, the MSMEs opined that all of them would consider selling and receiving payments digitally.

The study equally sought to understand whether MSMEs would use mobile payment solutions in cross-border trade. All of them indicated that they would most likely use mobile payment solutions in conducting cross border trade because of its affordability.

Further, as shown in figure 48, 25% of the MSMEs got their information from the internet, and another 25% got it from registered associations, with the balance being distributed between traditional media, the physical marketplace, friends and mobile messages. So as to ensure that they were getting the correct information, 88% of the respondents indicated that they would be happy with market information being sent to their phones. This therefore presents an opportunity to share market information with MSMEs conveniently, and in a timely manner.
Having realized the information gap, the questionnaire investigated how conversant the MSMEs were with digital platforms and their training needs in order to ensure that they were confident in the digital world and be digitally included. The MSMEs indicated that they needed training, with 13% indicating they needed the basic training course to enable them appreciate the smartphone and digital platforms, 12% indicated that they were above basic in terms of training needs but below advanced, while 75% indicated that they would want an advanced training course on how to improve their businesses using digital platforms. Regarding their willingness to expand their digital skills, they expressed enthusiasm about the initiative.

The study sought to find out how the respondents felt about their own participation in the digital space. They were all convinced that MSMEs were underrepresented in the digital space. They also felt that the digital business field is one of the most important indicators of success in the 21st century economy.

With respect to important value-added services they would want to see on their phones, the respondents indicated a preference for bank statements (38%), commodity price information (24%), currency exchange rates (14%), product focus demands (19 percent), and credit worthiness statements (five [5]%). The impact of digital payments on turnover was also viewed favorably by all respondents, with 88% of respondents convinced that regional payment systems for cross-border trading would positively impact their business.

2. STAKEHOLDER CONSULTATION MEETINGS

2.1 *The Financial services sector*

Zambia's Financial Sector can be classified into the following main categories: banking, pension and insurance, and non-bank financial institutions. In recognition of the strategic importance of the development of the financial sector, the Government devised and formulated policy mechanisms for addressing the obstacles that were identified within the framework of the Poverty Reduction Strategy Paper (PRSP) whose implementation started in 2002. Additionally, the government approved the Financial Sector Development Plan (FSDP), a comprehensive strategy that sought to address weaknesses within the Zambian financial system. The plan will continuously guide efforts aimed at realizing the vision of a financial system, which is stable and market-based thereby supporting efficient resource mobilization, considered necessary for economic diversification and sustainable growth.[71]

[71] https://www.pwc.com/zm/en/industries/financial-services.html

2.2 *COMESA Market Traders Association*

According to a War on Want report (undated), the Cross-Border Traders Association (CBTA) which was established in Lusaka in 1995, represents around 35,000 members in the region. The Association has 40 branches, with presence in over 15 markets in the Eastern and Southern African region. It was highlighted that the CBTA has developed a positive relationship with both the local and central government. It was noted that previously, cross-border traders were trading from anywhere including the streets and bus stops in Lusaka, but in consultation with the Lusaka City Council. The CBTA managed to secure a plot of land in the city center, which currently accommodates the majority of cross-border traders (around 8,000 traders) in Lusaka. The market is known as COMESA market.[72] The Association believes that local authorities perceive CBTA to be a dynamic association that has added sanity to the well-being and work of Lusaka city.

2.2.1 *Transactions*

The Traders indicated that their preferred means of transactions in the market is cash. The only time they would do digital transactions is when the funds have to be deposited into a bank account. Taking into account that the majority of their transactions were across the border, they had found a way of making funds move across the border in a smooth way. Some transactions were done through the formal channels, while the majority of the channels are informal.

In respect of informal channels, sellers and buyers always had some settlement arrangements across the borders. They had found these arrangements to be efficient but tedious. A buyer would look for a person travelling to the other side with whom he/she could send the money, and the person would collect the merchandise. These people could either be bus drivers or people who were in the business of ferrying merchandise for MSMEs across the borders.

2.2.2 *Challenges*

In terms of using digital platforms, it was noted that formal channels could rarely be used because of transaction costs which were perceived to be high in the event of using mobile money. To mitigate against such losses, they always asked the buyers to add an extra amount that was either equal to or above the transaction fees, in the process passing on the cost to the buyer.

2.2.3 *Customs*

The MSMEs were not aware of the tariffs/duties that they were expected to pay at the border. Duty that is paid at the border usually varies regardless of whether the merchandize was similar in terms of quantity and quality. It was pointed out that despite their willingness to formalize as cross-border traders, such practices at customs often led them into smuggling.

2.2.4 *Exchange Rate*

Exchange rates in the official bureau de changes vary a lot and they are unclear. It is difficult to predict them and cross-border traders preferred converting their money informally at the border because there were no hidden costs. This is another contributing factor as to why cross border traders choose to remain informal.

2.3 *Bank of Zambia (BoZ)*

The Bank of Zambia (BoZ) is the Central Bank of the Republic of Zambia, and it derives its functions and powers from the Bank of Zambia Act, no,43 of 1996 and the Banking and Financial Services Act, Chapter 387 of the Laws of Zambia. The Mission Statement of the Bank is to maintain price and financial system stability to foster sustainable economic development.[73]

2.3.1 *National Financial Inclusion Strategy*

It was noted that Zambia was the first country to introduce digital payments in 2002 (five (5) years before M-Pesa). It was further established that the bank supports the National Financial Inclusion Strategy through monetary policy initiatives, adjustments, directives, and circulars.

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[72] https://waronwant.org/sites/default/files/Time%20for%20a%20New%20Deal.pdf

[73] https://www.boz.zm/about-us.htm

2.3.2 *National Payments System*

The Zambian payment system is composed of Large Value Payment Systems (LVPS) and Retail Payment Systems. The Zambia Interbank Payment and Settlement System (ZIPSS) is the only system in Zambia that facilitates large payments. Under the retail payment scheme, a number of payment mechanisms are available, including: EFTs; Cheques; ATMs; PoS, domestic and international remittance systems; and mobile payment systems.[74]

The Central Bank indicated that there are a lot of directives, circulars and guidelines that have been issued by the bank. Some of them are already incorporated into the national payment regulations. The NPS is governed by the "The National Payment Systems Act" of 2007. It was noted that the NPS is under review to include electronic payments.

Digital payment platforms in Zambia are open to all who are willing to participate in the space. There are MNOs, banks, and non-banks, among others within this space, which are all regulated by the monetary authority. However, some of the players are regulated together with other regulators. A typical example is an MNO-led mobile money system where the communication regulator (ZICTA) also come into play, and regulation is done through a MoU between BoZ and ZICTA.

The BoZ highlighted that unlike in other countries where MNOs are given letters of no objection, operators in Zambia are actually awarded proper licenses. All e-money issuers are licensed by the BoZ. In a related development, it was established that some banks and MNOs were testing a new innovation from the Southern Africa Development Community (SADC) retail payments system.

The Central Bank indicated that they have a Financial Intelligence Centre act which was enacted in 2010. There is also the Financial Intelligence Centre and the Balance of Payments Monitoring Unit at the BoZ. The aim of these units is to ensure the stability of the monetary system. In 2017, the BoZ also issued directives on Anti-Money Laundering (AML), and combating the financing of terrorism or proliferation.

In order to promote DFI, the bank introduced a simplified KYC and limits on all mobile money transactions. In terms of infrastructure, the Central Bank has a national financial switch, which is used for making all digital transactions.

Transaction fees on all the platforms are not regulated, because the bank is liberal in facilitating competition to determine the optimum cost of transactions. However, it is clearly stipulated that there will be no surcharging allowed on all PoS, ATMs and merchant transactions.

2.3.3 *Challenges*

Transaction costs on SIRESS are high, including the settlement criteria on all remittances into Zambia. Prefunding issues have been highlighted as a major setback in settling transactions.

2.4 *Ministry of Transport and Communications*

The Ministry of Transport and Communications was created by a Presidential Decree following the splitting of the Ministry of Transport, Works, Supply and Communications in 2015 and became fully operational on 1st January 2016. The mandate of the Ministry is to formulate and administer policies in the transport, communications and meteorological sectors, in order to enhance their contribution to sustained socio-economic development for the people of Zambia.[75]

The Ministry is responsible for the Communications ICT Policy and Regulations portfolio among other things. The Ministry is also responsible for oversight of Statutory Bodies and Institutions like Zambia Information Communications and Technology Authority (ZICTA). It also manages state owned enterprises such as, Zambia Telecommunications Company Limited (ZAMTEL) and Zambia Postal Services Corporation, (ZAMPOST).

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[74] https://www.boz.zm/overview-of-payment-systems-in-zambia.htm

[75] https://www.mtc.gov.zm/?page_id=5223

2.4.1 *Digitization*

The ministry indicated that they were engaged in the digitization drive which was in phase two. The key objective of this project is to increase mobile network coverage and access from the current 70% to cover almost 100% of the country. It is expected that this will increase the efficiency in the provision of ICT services across the country. In terms of coverage, it was observed that urban areas are under 4G coverage, while rural areas are mainly under 2G and 3G coverage.

The government has also opened ICT centers at selected ZAMPOST offices towards ensuring that the youth, women, and entrepreneurs have access to the internet. The Government has committed to build more ICT centers to improve and enhance digital inclusion.

2.4.2 *MSME Support*

Zambia is working on a low-cost handset model, and the country's Revenue Authority is exempting taxes on the importation of mobile phone. It is further interesting to note that ZAMPOST has a low-cost transaction card called the swift card[76].The card has a USSD platform primarily aimed at digitizing the traditional telegram money.

2.5 *Zambia Seed Trade Association (ZASTA)*

ZASTA is a national seed association which looks at the interests of seed companies in the country's seed trade. It was established in 1999 and has 19 members, which include Seed.Co, MRI/Syngenta, Zamseed, Seed Control and Certification Institute (SCCI), ZARI, Klein Karoo, Piooner, Kamano, Monsanto, Stark Ayres, Buya Bamba, Croplife, Harvest Plus, UNZA, Steward Globe and Advanta. ZASTA works in partnership with the seed control and Certification Institute (SCCI) of the Ministry Of Agriculture and Livestock (MAL) in combating fake and illegal seed.[77]

The Association highlighted the fact that digital inclusion is critical because it provides audit trail for their membership. ZASTA recommended the availability of a platform where farmers and traders can have information availed to them, in terms of the market and policies across the COMESA region.

It indicated that over the years, there have been some agro-dealers supplying seeds to the DRC illegally using cash payments.

2.6 *FINCA*

FINCA has a microfinance bank and a payment license with 14 branches and 75 brick and mortar agents in Zambia. It has partnerships with rural finance organizations and Financial Sector Deepening, Zambia. The microfinance bank has partnered with Catholic Relief Services, and is present at the bottom of the financial pyramid of the agriculture value chain. FINCA has also partnered with Good Nature Agro (GNA), an agricultural focused social enterprise. GNA works with rural farmers in Zambia to provide them with farming inputs and training throughout the growing season. The bank has financial literacy programs targeting smallholder farmers and savings groups. FINCA would like to pilot a project on providing DFSs to GNA's smallholder farmers.

The bank has integrated with all mobile money providers in Zambia, and their system allows for digital account opening. On the digital platforms, FINCA has close to 1000 agents who work with savings groups. The bank's objective is to commercialize all savings groups in Zambia. Suffice to mention that their system is integrated with the ZRA and National Pension Scheme Authority (NAPSA) for government revenue collections and others such as pension collections.

[76] https://www.zampost.com.zm/financial%20services.html

[77] http://www.zasta.net/about.html

2.7 *Ministry of Finance: Economic Management Department*

The role of the Economic Management Department (EMD) in the Ministry of Finance is to either put in place or design a macroeconomic policy framework that will facilitate sustainable economic growth and stability. In this regard, EMD is responsible for the development of effective monetary and fiscal policies, which will guide domestic resource mobilization as well as the Government's mid -term and long-term expenditure. Furthermore, the Department is mandated to spearhead economic monitoring and analysis in consultation with the national financial institutions and other government agencies. It is also responsible for undertaking and coordinating external financial resource mobilization.[78]

2.7.1 *MSME Support*

The department outlined the following challenges being faced by MSMEs;

- Market access - MSMES are facing challenges with marketing their produce in the country, region, and beyond.
- Information gap
- Interoperability

The government believes that there is significant potential for e-commerce development, and is working towards developing a marketing platform for all MSMEs in Zambia. MSMEs are considered to be an important engine driving the country's economy. The government is pleased to realize that the majority of these MSMEs are women. Therefore, the expansion of access to domestic and overseas markets for these female business owners through e-commerce, would contribute to inclusive economic growth and trade. The Ministry believes that MSMEs in Zambia are beginning to tap into the benefits of e-commerce, and the digital economy through a project called Smart Zambia.

2.7.2 *Digitization*

The government is now on the e-government system where institutions such as ZRA have digitized tax collections. The ministry concedes that since digitizing tax collections, the government has started collecting more revenue because tax payments can be done in 24 hours.

In an effort to improve uptake and usage of ICT services, the government has reduced duty on the importation of SIM cards, PoS, and phones.

2.7.3 *Business Registration and Identity*

The MSMEs and any businesses willing to formalize can register through an application. There is also a USSD platform for tax transactions in Zambia. Every business has a tax identification number, and the government is working hard towards ensuring that all MSMEs are registered.

All government to business (G2B) and government to person (G2P) payments are now digital with the understanding of fully digitizing the revers transaction B2G and P2G.

2.7.4 *Infrastructure*

As part of universal ICT access, the Government is installing and commissioning towers in areas where MNOs do not find a business case.

2.7.5 *Regulation and Education*

- Cyber security bill
- Competition and Consumer Protection Act, 2010
- Insurance
- The government continuously participates in the savings groups' week and financial literacy week, to educate citizens on their rights and on finance. The Government is also using village bankers to sensitize citizens on financial literacy.

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[78] https://www.mof.gov.zm/economic-management-department/

2.8 *Zambia Information and Communications Technology Authority (ZICTA)*

The Zambia Information and Communications Technology Authority (ZICTA) is an ICT Regulatory body, which is responsible for regulating the ICT Sector in Zambia. It falls under the Ministry of Transport, Works, Supply and Communications and derives its mandate from the three Acts, the Postal Services Act No. 22 of 2009, Electronic Communications and Transactions Act No. 21 and the Information and Communications Technologies (ICT) Act No. 15 of 2009 to regulate ICTs, postal and courier services in Zambia.[79] It was noted that DFSs are regulated by the BoZ, and that there is a MoU between ZICTA and BoZ. For sim cards, they are deactivated after 90 days of inactivity, and all unclaimed balances on mobile money are sent to Boz after a certain period.

2.8.1 *Regulation*

ZICTA administers the following Acts:

- The Electronic Communications and Transactions Act, 2009
- The Information and Communication Technologies Act, 2009
- The Information and Communication Technologies Amendment Act, 2010
- The Postal Services Act, 2009
- Electronic Communication Transactions Act (under review)

It has also issued regulations and guidelines. Of particular interest to this study are the following regulations:

- The ICT (Electronic Communications) (Licensing) (Amendment) Regulations 2017
- The ICT (Fees) Regulations 2017
- The ICT (General) Regulations 2012
- The ICT (National Numbering Plan) Regulations 2010

2.8.2 *Partnerships*

The MNOs and banks are free to enter into partnerships with any Institution which they may want. In terms of licensing, ZICTA indicated that Zambia exercises a technology-neutral licensing framework.

2.9 *Airtel*

It was noted that there are players within the mobile money space who are already working on cross-border payments. Airtel is available in fourteen African countries, and customers in Zambia are able to send money to other countries such as Airtel Rwanda. The company is of the view that there is a need to facilitate cross-border payments for MSMEs and those at the bottom of the pyramid. Nevertheless, it was observed that transaction limits on mobile money are too low, and tend to limit business transactions for MSMEs.

2.9.1 *Infrastructure and Partnerships*

In terms of network coverage, Airtel stated that they cover 90%[80] of the country's population. With respect to cross-border transactions, it was expected that Airtel Zambia would be transacting with all its 14 Airtel counterparts in Africa, by end of April 2020.

Airtel has partnered with almost all banks in Zambia and will further be enhancing cross- border payments through partnerships with other banks. Additional corridors will be opened with partnerships and aggregators such as MFS[81] and Wari in West Africa.

2.9.2 *MSME Support*

The Jumo platform is used for loan disbursements, and an individual can access a microloan of up to a maximum of US$ 300 at a 13% interest rate for 21 days. In a related development, it was noted that mobile money statements are now being used for credit analysis when applying for personal loans with some banks.

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[79] https://www.zicta.zm/

[80] ZICTA put population coverage on 70%

[81] MFS Africa is the best gateway to send money to mobile wallets in Africa. http://mfsafrica.com/about/

2.9.3 *Mobile Money*

The most commonly used cases on mobile money are the following.

- Person to Person (P2P)
- Person to Business (P2B)
- Loans
- Bill Payment

In respect to services: MFIs are using Airtel money to collect loans; ZRA to collect taxes; and ZESCO for bill payments. On the other hand, schools and church payments are also becoming popular.

2.9.4 *Switch*

Airtel to Airtel cross-border transactions use a third-party switch run by ImpalaPay[82.] Regionally, Airtel is working on connecting Africa using their own switch.

In summary, it was observed that interoperability initiatives for the whole country are underway, and they will be using the Zambia Electronic Clearing House.

2.10 *Zambia Electronic Clearing House (ZECH)*

The Zambia Electronic Clearing House (ZECH) is a joint venture between the Bankers Association of Zambia (BAZ) and BoZ. It started as a project aimed at transforming and modernizing the inter-bank clearing system. This was in response to Government's policy to transform the economy, from a centrally planned to an open economy, thereby removing many controls that were previously exercised by the Government and BoZ. The long-term goal of the project was to improve the operations of the interbank clearing system with benefits accruing to bank customers.[83]

The Clearing House is working with banks on clearing cheques, EFT, ATM and PoS transactions. There is interoperability in Zambia and it is mandatory for all non-banks, as well as mobile money participants route their transactions through the clearing house.

3. PAYMENT INFRASTRUCTURE LANDSCAPE

The BoZ has identified a number of payment systems which it has categorized as SIPS and Non-SIPS. SIPS are the payment systems whose failure has the potential to trigger systemic risk and have an effect on the country's wider economy.

The following have been categorized as SIPS:

- Zambia Interbank Payment and Settlement System (ZIPSS)
- Electronic Funds Transfer (EFT) System
- Cheque Image Clearing (CIC) System

Non-SIPS include:

- Remittances/Money Transfer Systems
  Remittances include;
- Domestic Money Transfer Systems
- International Money Transfer Systems
- ATMs
- PoS

[82] https://impalapay.com/

[83] http://www.zechl.co.zm/background/

The BOZ developed the Payment Systems Oversight framework to guide its oversight activities. The bank adopted the Principles for Financial Market Infrastructures (PFMIs), which were issued by the Bank for International Settlements (BIS) and International Organization of Securities Commission (IOSCO) as a standard risk management framework for systemically important payment systems.

Zambia Interbank Payment and Settlement System (ZIPSS)	a) Zambia Electronic Clearing House Limited (ZECHL) ▪ Centralized electronic inter-bank clearing facility at which banks exchange payment instruments. ▪ Clearing and netting facilities low value retail payments including direct debits, credits and cheques.
	b) RTGS ▪ High value, time critical payments ▪ Provision for straight through processing of transactions from commercial banks
	c) Central Securities Depository (CSD) ▪ Accommodates all securities issued in Zambia including the Lusaka stock exchange in a book entry form. ▪ Linked to the RTGS component for settlement of security transaction
SIRESS and REPSS	✓ Regional network ✓ Average of 1500 transactions a month (SIRESS) ✓ Nine participating banks (SIRESS)
Paynet	✓ Outsourced payments transfer platform ✓ Easy, secure and cost-effective method of sending payments instructions to banks ✓ Used for bulk multiple bank salary transfers, supplier payments and direct debits
Cellulant	✓ Links banks and MNOs with mobile banking platforms ✓ Clearing happens on a real time basis while the frequency of settlement depends on bilateral agreements ✓ Average charge amounting to 1% of the transaction value
e-Switch Zambia Ltd- Zamlink	✓ Switching and settling secure shared financial transactions

3.1 Market Products

Airtel Money	**MTN Money**	**ZOONA**	**OTHERS**
✓ Mobile based service with e-wallet ✓ Functionality includes P2P, B2W, W2B, P2B, B2P, Bulk payments, Micro and nano loans and cross border payments and remittances.	✓ Allows users to send and receive money between more mobile financial service providers. ✓ Offers P2P, B2W, W2B, P2B, B2P, bulk payments.	✓ Mobile money platform. ✓ MSME focused with financing and training packages. ✓ Offers P2P and P2B transaction as well as airtime sales to all networks.	✓ Broad Pay ✓ Speed Pay ✓ Stanbic IM Voucher ✓ Cash Send (Barclays) ✓ Zamtel Kwacha ✓ Kazang (Spagris) ✓ FNB e-Wallet ✓ Swiftcash ✓ Shoprite Money Transfer ✓ Zanaco Xapit

3.2 Pricing structure for digital payments

Airtel already has authorization from the Central Banks in Uganda, Tanzania, Rwanda, Malawi and Kenya. Airtel is further looking at a total of 14 African countries by end of first quarter 2020. Partnership with MFS Africa is under consideration for additional corridors. MFS Africa is a pan-African fintech company that develops innovative value- added services for mobile wallets.

4. POLICY AND REGULATORY

The power to license, supervise, and regulate financial service providers in Zambia is defined under the following sets of legislations.

Policy and Regulatory	
Policy/Regulation/Directive	**Key Issues**
The Prohibition and Prevention of Money Laundering Act 2001	✓ Mobile money operators are obliged to submit suspicious transactions report to the financial intelligence unit.
	✓ MMOs are obliged to have information systems for monitoring transactions against the clients profiles
	✓ MMOs should also retain records in accordance with the requirements of the law.
	✓ MMOs must have independent compliance departments and conduct regular training for staff
Financial Intelligence Centre (FIC) Act, 2010	✓ Strengthen supervisory capacity through recruitment and training of staff.
Information and Communication Technology Act 2009	✓ Enacted with the aim of putting in place a comprehensive regulatory framework for electronic and postal communication.
Competition and Consumer Protection Act (CCPA) No. 24 Of 2010	✓ Promote and protect effective competition in trade and commerce ✓ Protect consumers from unfair and misleading market conduct and to provide for other related matters
The Postal Services Act, 2009	✓ To regulate the provision of postal and courier services
Electronic Communication Transactions Act (under review)	✓ Covers issues regarding electronic transactions, data protection, electronic commerce as well as cyber security among others.
Banking and Financial Services Act (2017)	✓ To provide the regulation in respect to the conduct of banking and financial services; to provide safeguards for investors and customers of banks and financial services.
National Payments Systems Act (2007)	✓ To provide a legal backing for the operation of the various payment mechanisms in Zambia

5. PICTORIAL FOCUS

Figure 49: Pictorial Focus - Zambia

APPENDIX 7: EGYPT

1. MACRO-ECONOMIC OVERVIEW

International Monetary Fund (IMF) data indicates that Egypt has a population of 98 million, with GDP per capita of 2019 standing at US$ 3,046.6[84]. Similarly, the IMF economic Outlook for 2020-21, the GDP grew by two (2%) in 2020 and is estimated to grow by a similar percentage in 2021 due to the effects of COVID-19.[85]. This anticipated growth was to be supported by a number of factors, such as the recalibration of the government's social inclusion programs, besides the general subsidies on energy products to targeted transfers, and improvements in the business environment. Egypt has a large domestic market, and highly diversified economic base, with specific focus on the services, manufacturing and agriculture sectors. Recent economic growth has been driven by an expansion in the gas extractives, tourism, manufacturing, construction and ICT sectors.

• Mobile internet users as a percentage of mobile subscriptions at 44% as at January 2020[86]Mobile penetration at 13% • Internet penetration at 49% (40.9 million users for 2018/19[87]) • Females with internet access at 41.3%	• Formal bank account, mobile wallet account or post office account at 33% • Number of debit cards reached 17.3 million • Informal sector as a percentage of GDP at 40% (2015) • ICT contribution to GDP at 2.18%[88]	Youth in Egypt constitute 60% of the population[89]

Table 35: Key Statistics Egypt

During the field missions, the Central Bank of Egypt (CBE) indicated that, it had been in the lead in keeping up with continuing advancement in the banking industry, such as online and mobile banking services. Expanding e-banking services in Egypt are widely viewed as representing a step towards advancing financial inclusion in the country. This is despite the anxiety it causes in the industry, particularly those related to confidentiality of bank accounts on the one hand, and anti-money laundering and countering terrorist financing on the other hand. CBE supports the growth of digital payments systems, and is already looking at Blockchain technology with a focus on a shared KYC project.

2. The MSME Study

The MSME training was done with the help of interpreters. The survey was also conducted in the local language, however due to circumstances beyond the control of the CBC team, it was unable to get the translated versions of the questionnaires that were shared thus the absence of MSME country data.

[84] IMF outlook database, October, 2019

[85] https://imf.org/en/publications/WEO/Issues/2020/06/24/WEOupdatejune2020

[86] MCIT

[87] Household survey of MCIT

[88] https://www.ecofinagency.com/telecom/2006-40198-egypt-icts-contribution-to-gdp-grew-3-in-the-last-9-months

[89] https://egypt.unfpa.org/en/topics.young-people-14

3. STAKEHOLDER CONSULTATION MEETINGS

3.1 *Ministry of Finance*

The CBC team held a meeting with the Ministry of Finance representatives who observed that the government institution that is responsible for DFI initiatives is the National Payment Council. The Council was established under the chairmanship of the President of the Republic, as a way of encouraging and promoting digital payments. It was established with the main aim of reducing the volumes of informal financial transactions, and increasing the formalization of the informal sector. The Council is composed of a number of ministries as well as government departments. The composition reflects the key stakeholders in the regulatory framework. The Members of the National Payments Council include:

a) The Prime Minister
b) The Governor of the Central Bank of Egypt (CBE)
c) Minister of Defense and Military Production
d) Minister of Planning and Administrative Reform
e) Minister of Interior
f) Minister of Communications and Information Technology
g) Minister of Justice
h) Minister of Finance
i) Head of the General Intelligence Service
j) Head of the Administrative Control Authority
k) Deputy Governor of the Central Bank of Egypt for payment systems
l) Chairman of the Financial Supervisory Authority
m) The chairman of a bank's board of directors
n) A legal adviser.

It was noted that the Ministry of Finance is embarking on an initiative to automate public fiscal management. This is done by spreading e-payment and collection platforms across the nation using digital systems such as the Global Positioning System (GPS), Target Service Agent (TSA) and Government Financial Management Information Systems (GFMIS). This is aimed at enhancing domestic resource mobilization by improving the performance of the public administrative units. The Ministry believes that digitization of the government coupled with DFI of citizens will improve transparency, accountability, efficiency, and cost-efficiency in public services spending. In this regards Ministry of Finance has done the following:

a) E-payment and collection systems are now automated and integrated with the Treasury Single Account (TSA) banking system at the CBE. Ministry of Finance alongside CBE closed 60,000 sub-accounts related to the different administrative bodies at the CBE, and substituted by the TSA at the Central Accounting Unit at the Ministry of FinancePaper checks have been cancelled and replaced by the new e-payment system. Thus, payroll and other payment orders executed by government are directly transferred to the employees' bank accounts, which were opened in advance by the Ministry of Finance for all employees. Similarly, payable dues of the suppliers and contractors dealing with the Ministry of Finance are deposited directly in their banking accounts after being deducted from the TSA.

- a) In addition, since 1st July 2018, tax and customs collections have been digitized, and no cash is involved for values above EGP5, 000 (about US$265). This is done through the Centre of Electronic Payment and Collection at the Ministry of Finance.
- b) Issuance of the Egyptian government card for the disbursement of salaries of government employees including all accounting units of the state budget and the economic authorities. As 4.9 million cards for employees in service had been issued. The E-payment system directly transfer to the employees' bank accounts, this is in addition to the issuance of seven (7) million cards for pensioners. This was done in collaboration with the CBE

On March 11th, 2019 the parliament approved the non-cash payment law, no. 18 of 2019. The main dictates under the Law are as follows:

a) The law obliges all national establishments, state institutions and the juridical persons to pay all dues related to their employees, board of directors, and the social insurance subscriptions through the digital means.
b) The law obliges private companies to pay all dues related to their employees, board of directors, and insurance subscriptions via the digital platforms subject to the limitations placed by the law.
c) The law obliges government entities and the juridical or natural persons to pay through digital means whenever/if the payments' value exceeds a certain limit to be determined by the executive regulation. This applies to the following payments:
    i. All fees that are due to suppliers, service providers and other contractors.
    ii. Cash financing.
    iii. Distribution of profits resulting from the contribution to the capital of companies or investment funds.
    iv. Dues of syndicate members, private insurance funds' members, and insurance compensation.
    v. The disbursement of subsidies and donations through charities and national institutions.
    vi. Dues against purchases, rent, exploitation, use of land or mortgage or express transport vehicles by the state's authorities and juridical person and establishments stated in Article. 2 of the Law.
d) The Law also obliges the entities to receive the following payments through non-cash methods:
    i. Taxes, customs, tolls/fees, and penalties.
    ii. Dues against services and payables of the private and general/national entities.
    iii. Cash finances' instalments, instalments of insurance policies, syndicate subscriptions and private insurance funds' subscriptions.
    iv. The disbursement of subsidies and donations through charities and national institutions
    v. Dues against purchases, rent, exploitation, use of land or mortgage or express transport vehicles through the state authorities and juridical person and establishments stated in Article. 2 of this Law.
e) The Law defined the below sanctions:
    i. Penalty not less than two (2%) and not exceeding 10% from the total cash payments with a cap of one (1) million EGP for those violating Articles 2, 3 and 5.
    ii. Penalty of the same above-mentioned statement to those who pay partially, to circumvent the aforementioned limits of this law.
    iii. Penalty of not less than EGP100, 000 and not exceeding EGP300, 000 for those violating Article no.4, part 1 from the Law.
    iv. These penalties will be duplicated in case of repetition.
f) Based on the Ministerial Decree (312) of 2019, additional administrative fees will be due in case of non-compliance with the non-cash payment methods as regards governmental payments including taxes and customs. Such administrative fees shall be five (5%) of the payment amount with a cap of EGP 7,000.

It was also highlighted that CBE has already activated mobile wallets and QR codes for the private sector. The Bank aims to distribute 200,000 QR codes among merchants and companies.

Ministry of Finance mentioned that the following regulations and government initiatives are in place to facilitate DFI:

a) The national payment scheme "Meeza" initiative by CBE
b) E-Government initiative by Ministry of Planning

In this regard, the Ministry of Finance moved towards automating public finance, through the digitalization of government payment and collection as mentioned earlier in addition to the following:

1. The other axis of this initiative to automating public fiscal management is the GFMIS which is currently used for the execution of State's General Budget in order to control the government spending. Through implementing GFMIS, the Ministry of Finance and other administrative entities are able to achieve objectives, such as:
    - The ability to realize efficient planning to continue performance follow-up and to complete financial information of national and major programs and projects and delivering reports thereon.
    - Providing full support for the financial administration through issuing automated e-financial reports and helping the decision-makers to develop a strategic scheme for each Budget Authority and across the country.
    - Providing the opportunities for the optimal use of resources and public expenditure.
    - The ability to determine responsibility and evaluate performance, leading to improving the overall performance of the government administrative entities and the accountability criteria.
2. The integration between GFMIS and TSA & E-payment help Accounting Units to issue any payment order only after passing through the electronic documentary cycle in GFMIS in order to tighten electronic control over the Accounting Units.
3. On tax system side, Tax Administration Reforms procedures include:
    - Starting the compulsory submission of tax returners for both VAT and income taxes electronically since 1st January 2019.
    - Tax authority is working on automating and integrating of both the income and VAT tax systems by unifying procedures, work flow, and database.
4. The Ministry if expecting to issue the smart tax card for all tax payers, which will provide significant control and regulation and introduce of E-Invoice B2B, where companies will register and produce all VAT receipts and invoices to oversee all transactions and reduce fake receipts. The introduction of E-Commerce and on-line advertisements law.
5. As for customs authority, Egypt launched its 1st phase of customs' single window system and logistics centres at Cairo airport on March 2019, followed by Port Said port on May 2019, with a full implementation plan across all ports within two (2) years. All parties are involved in customs release will be connected through e-signature using single automated database, which will ensure fairness, transparency, governance and will reduce time and cost of Egypt's trade across borders.
6. In addition, the Egypt issued its new law of government procurement and tendering on October 2018. The government procurement portal lunched to serve the procurement process of the government for every procurement department in ministries and government entities where procedures like for publishing, evaluating, advertising as well as collection of needs were automated.

It was learnt that Parliament has adopted a law, aimed at supporting small businesses in their tax payment systems by coming up with solutions that conveniently speak to the MSME.

The ministry acknowledges that digitization of payment systems and other financial services face several on-going challenges, including:

a) Egypt's strong cash culture;
b) Egypt's expansive geography and limited accessibility; and
c) Other market and infrastructure challenges in Egypt including:
    - Lack of stable mobile and internet connectivity
    - Lack of consumer trust in informal services
    - Limited time and resources for DFSs by the markets

However, it has been clarified that the government has overcome these challenges by focusing on two (2) main pillars:

a) A sound and strong financial infrastructure supported by a proper operational and regulatory framework;
b) Enabling new technologies to provide electronic delivery channels and expand the banks footprint.

3.2 *Ministry of Communications and Information Technology (MCIT)*

The Ministry of Communications and Information Technology (MCIT) was established in 1999 to develop the national ICT sector. The Ministry strives to achieve a digital economy through the use of ICT tools to provide prosperity, freedom and social equity for all people. The mission of MCIT is to enable the development of a knowledge-based society and a strong digital economy, which relies on equitable and affordable access to knowledge. MCIT is also mandated to develop a competitive and innovative national ICT industry.

The Ministry officials pointed out that one of its key priorities is to promote the development of the ICT infrastructure, and digital services for government entities. Activities under this initiative are focused on enhancing the performance of ministries and other government institutions. Its overall objective is to raise the quality and efficiency of the services being provided to the public. This will be achieved by improving the work environment, providing support for decision-making, and finding solutions to issues of concern to the community. These efforts will boost local markets, and raise demand for ICT services.

The Ministry further explained that the development of Egypt's telecommunications sector has been achieved as a result of the good working relationship among multiple stakeholders, with MCIT acting as the facilitator of this process. Partnerships with public, private, non-profit, civil society, and multilateral stakeholders has fostered the development of new leadership models and collaboration within the sector. It was noted that the involvement of the private sector is of strategic importance in this area, not only to provide technological expertise and innovation, but also to take lead in devising market-based solutions and investing in infrastructure as well as ICT initiatives.

The following institutions were highlighted as their affiliate organizations:

- The National Telecommunications Regulatory Authority (NTRA)
- Information Technology Agency (ITIDA)
- Egypt Post
- Information Technology Institute (ITI)
- The National Telecommunication Institute (NTI)
- Center for Documentation of Cultural &Natural Heritage (CULTNAT)
- Technology Innovation and Entrepreneurship Center (TIEC)

MCIT pointed out that the above institutions are critical in Egypt's technology and communications sectors.

3.2.1 *e-Commerce Strategy*

The Egyptian e-commerce strategy was launched in December, 2017 in collaboration with UNCTAD. It includes a number of recommendations that support the challenges facing e-commerce sector in Egypt, and contributes to a great extent to enhancing decision-taking and adopting the related policies.

3.2.1 *Related Financial and Logistical Services of Egypt Post:*

3.2.1.1 *Easy Box Service*

The Egypt Post provides this service to its clients who are mostly MSMEs. The major aim is to: facilitate the shipment and receipt of goods via express post service; facilitate and secure payment; and receive their dues through the use of electronic payment cards (direct deduction cards) of Egypt Post.

3.2.1.1 *E-Commerce Platform*

Egypt Post is currently developing an e-commerce platform named "Bareed Mall". The platform will avail opportunities to MSMEs from more than 15 African and Arab countries, and any other country wishing to benefit from the platform, to showcase their products. It will also provide integrated services for e-commerce by showcasing products, customer service, e-payment services, shipping, transporting and distribution through the international postal network as per the Universal Postal Union (UPU) standards.

3.2.1.1 *Advanced Financial Services*

The Egypt Post provides a diversity of financial services that MSMEs can benefit from. These services include: current accounts; saving accounts; domestic remittances inside Egypt; electronic levying and notification services; and providing the pre-paid electronic payment cards (direct deduction). These services can be used in making online payment, both locally and internationally, or via the Egypt Post application called “Easy Pay” on the mobile phone.

3.3 *Agricultural Export Council (AEC)*

Agricultural Export Council is a non-profit making, and an advisory body of the Ministry of Industry. More than 1,600 companies are under the ambit of AEC and get advice on production, export, and trading partners that transact over 2.5 billion dollars. The companies get market related information and advice on agricultural products such as citrus, potatoes, onions, strawberry, grapes, green beans, herbs, spices among others. AEC explained that its project related to market access was launched two years ago, to market agricultural products in the following three geographic areas:

- Africa
- Far East
- Latin America

Fourteen (14) new countries were opened up for market for the products within the past two years. However, it was observed that it is still difficult to penetrate the African market. Industrial products from Egypt are needed in Africa, and AEC would want the same trend for fresh agricultural products, with trade missions and promotion. In response, the CBC team advised AEC to join the Biznet platform which can assist with such market linkages. In addition, further assistance can be provided by the CBC business facilitation team, through the Market Briefs and Market Pointers on the web site.

The AEC has the following main goals:

- Expansion of markets: AEC is committed to expansion into new markets. In cooperation with the Egyptian government, it creates contacts, builds networks, and compiles dossiers that lead to market access for Egyptian produce in new sales territories.
- Promotion of the Egyptian agricultural exports and the Egyptian exporting companies by studying consumer behavior, through trade fairs and missions, export training, and offering technical assistance.
- AEC also pointed out the following aspects in respect to implementation of the regional digital common payment system:
  - The small-time exporter is the most important stakeholder in this payment system modality.
  - A regulatory framework for the money to be transferred must be carefully considered.
  - Currency conversion should be carefully analyzed in designing the system.
  - The amount of money that is transferrable in the system.
  - The transaction fees should be agreed upon and be competitive.
  - The financial payment guarantee is the most important factor for agricultural exports and trade promotion in general.
  - Awareness campaign of the system is important.

In wrapping up the meeting, AEC expressed its willingness to cooperate with the CBC initiatives including the DFI Project awareness and MSME trainings in future.

3.4 *Egyptian Micro Finance Federation*

The Egyptian Microfinance Federation has over 950 MFIs and 11 companies under its membership. Egyptian Micro Finance Federation is in the process of turning into a Fintech, and currently provides training services to its members upon given them loans.

The following challenges were highlighted as regards MFIs:

- ✓ Client culture has preference for cash as opposed to digital transactions
- ✓ Issues related to service providers

In closing the meeting, the Federation mentioned that some of the DFI initiatives in Egypt are MISA, FAURI and bank to machines.

3.5 *Agricultural Bank of Egypt*

Agricultural Bank of Egypt (ABE) is the leader in terms of branch networks. About 25%-27% of all the bank branches in Egypt belong to the ABE. The branches are which are located in 1,000 villages and the main cities serve farmer payment cards and products for financing farmers

The ABE indicated that small holder farmers face the following challenges:

- There is problem of transporting products to the buyers upon production in the agricultural value chain
- Farmers do not explicitly know the requirements they are supposed to comply with

The Bank pointed out the following potential challenges in respect to the digital regional common payment system:

- The decision on currency to be used as baseline (settlement) currency
- The decision on the transaction limits
- The transaction insurance
- User-friendliness of the system

3.5.1 *Recommendations*

- The ABE suggested that the system should be able to transact through the local currencies of member countries.
- It was also recommended that a loan facility be incorporated into the digital common payment system.
- There are about seven (7) million small holder farmers operating under their umbrella. Out of the total number of farmers, 20% deal with banks, while the rest are do not deal with them. They recommended that CBC should start with small holder farmers who are marginalized from the banking industry.
- It was established that ABE has four (4) Egyptian agri-portals which help the small holder farmers' maneuver in the agriculture supply chain.

3.6 *Central Bank of Egypt (CBE)*

The CBE highlighted the fact that they were working with different departments, under the initiative of MSME business growth with regard to integration and digitization. It was noted that most MSMEs were operating in the informal sector, and the bank was interested in including them in the digital finance platforms.

It was observed that the Central Bank makes it possible for MSMEs to access finance. In relation to this, over the past four (4) years, EGP181 billion (US$12 million) had been awarded to MSMEs as credit facilities. This had impacted over 115,000 MSMEs, and over 930,000 individuals and micro-enterprises.

The Egyptian bank institute has established a special unit to assist MSMEs access credit through financial literacy trainings and engagements.

In view of the non-cash payment law, as from 1st of May 2019, citizens started paying for government services using digital means for all fees that exceed EGP500. The Ministry and the CBE are currently installing 100,000 new electronic POS devices throughout the country at the cost of CBE. Over the past five (5) years, electronic POS additions jumped by 251% reaching to a total of 200,000 POS. This endeavor will not be successful if the citizens are not digitally ready. The banks have made an additional 6.6 million Meeza cards, to be availed in the market, over and above the already existing cards. Over the past six (6) years, the issuance of electronic payment cards grew by 136%, reaching 38.2 million. By December 2019, the number of debit cards reached 17.3 million while the credit cards reached 3.37 million.

Digital Initiative

Egypt is moving away from a cash economy into a digital one. The level of cash in circulation had reduced to 10% of the GDP from 14% within five (5) years, taking into consideration the changes that occurred in the population as well. Over the past six (6) years, the issuance of electronic cards has grown by 136% to reach 38.2 million electronic cards. In the last five years, POS machines increased by 257%, reaching 200,000 million PoS machines in the market. During the same period, ATM machines grew by 73% reaching 13,600 machines in the market. An additional 6,500 ATMs are being added in phase I, with the features that make it possible for persoons with visual disability to use. Tax payments are also made through the e-payments system.

Recently, CBE has: increased the maximum limit of mobile wallet accounts and pre-paid cards; and allowed opening of mobile wallet accounts for existing bank customers using previously registered data at the bank. Mobile payments in Egypt are bank-led, and the banks cooperate fully with the MNOs.

The bank has also launched the following policies in support of digital payments:

- Simplified KYC for both individuals and merchants
- Digital onboarding of customers
- Prepaid cards
- QR specifications
- Internet banking

CBE has multiple channels to monitor and manage DFI as follows:

- Screening system
- Money laundering solutions (KYC requirement and BOP accounts supervision)

3.6.1 *Recommendations*

The following recommendations were made;

- Exploit the facilities of AFREXIM bank which constitutes of commercial banks, SMEs, and other large corporates.
- Following the activities of the African Association of Central Banks to leverage on the DFI initiatives they are currently working on.
- It was recommended that the policy aspects should competently handle the reversals of wrong transactions.

The Bank recommended the following, for the anticipated CBC regional digital payment system:

- Peer to peer banking (Automatically transact between banks in the region)
- A facility for screening negative transactions
- A remittance solution should be included with direct connection between the remitter and beneficiary.
- It has to be interoperable with other systems.
- There should be an agreement on the conversion rate of currencies, when a common currency is in place
- There should be synergies among the existing infrastructure, in the best interest of the customers in the region

It was established that that CBE had started putting in place blockchains system infrastructure for the shared KYC platform, although it is hesitant about cryptocurrencies.

3.7 *AFREXIM Bank*

The main objectives of AFREXIM Bank are to:

- Increase trade in the African region.
- Fast-track intra African trade
- Formalize unrecorded trade resulting from the high rate of informal trade in Africa
- To provide an alternative to the use of corresponding banks by offering an interoperable payment system

AFREXIM bank provides credit guarantees and innovative ways of assisting customers, for instance by undertaking proper KYC checks for MSMEs which are considered risky. The bank is a payment platform that integrates the payment flows between different regional blocks, such as COMESA and ECOWAS. The Bank's new system is known as the Pan African Payment Settlement System (PAPSS). PAPSS is a platform that domesticates intra-regional payments, in the process: saving the continent over US$5bn in terms of payment transaction costs per annum; formalizing a significant proportion of the estimated US$50bn of informal intra-African trade; and boosting intra-African trade

The platform which has been developed in collaboration with the African Union, will make it possible for African companies to clear and settle intra-African trade transactions using their local currencies[90]. This will significantly reduce the dependence on hard currencies for making regional trade payments.

The banks main challenge is with regard to the post payment settlement platform across the borders. The system architecture was designed in such a way that AFREXIM is the main settlement agent, whereas the Central Banks are the co-settlement agents.

The two reasons given for this architectural schema are as follows:

- Provides guarantee for settlement
- Final settlement will be in dollars at the Central Bank stage

The following advice was given in terms of technical design features of the payment solution:

- Standard design with risk avoidance element on the transactions
- It is a prefunded model
- Offers instant payment

It was noted that PAPSS can be downscaled to country level and the African Monetary Authorities will monitor the technical conformity of the system in-line with the best practices. From the regulatory perspective, cross border regulatory framework is currently being developed from the point of view of pan Africanism. The regulatory framework is being adopted from the EU's model where the EU payment system (Target 2) is with European Central Bank, while each country has its own domestic laws.

3.7.1 *PAPSS Implementation Challenges:*

- The system is about integrating both payment systems and countries
- Regulatory and political aspects are key challenges, taking into account that AFREXIM is an international financial institution.
- MSMEs are not willing to join a formalized payments system, because this can increase the level of taxation on them, and yet the MSMEs are informal by nature.

3.8 *MSME training and survey at Federation of Egyptian Industries*

The Federation of Egyptian Industries highlighted the benefits of this digital regional common payment solution to MSMEs who were at the bottom of the financial pyramid. During a meeting with more than 40 MSMEs, a presentation was made on introduction of the CBC and DFI Project, including a demonstration of Biznet. The following recommendations were made after the presentation:

[90] https://www.gtreview.com/news/africa/africas-continent-wide-payment-and-settlement-system-launched/

3.8.1 *Recommendations*

- Private sector is growing fast, and there is a need for CBC to cope with this speed
- Consulting firms should be included in CBC's database
- Companies that are registered on Biznet should be validated of
- Tripartite partnership is needed at the business level to facilitate easy integration, and business implementation
- The regional digital common payment system is meant for small transactions targeting the bottom of the financial pyramid. In view of this development, there is a need to consider large transactions in the digital regional common payment system.

4. PAYMENT INFRASTRUCTURE LANDSCAPE

The CBE is the overseer of the payment system, with the Payment Systems Department within the bank playing three pivotal roles in the payment space. These are:

- ✓ Operating a number of payment systems;
- ✓ Overseeing payment systems and services in Egypt (through standards, regulations and licensing payment systems and services); and
- ✓ Acting as a catalyst for change in the payments market.

The emphasis is on: ensuring trust among the users; protecting consumers; regulating the market; and ensuring competitive market conditions. Most important, is the realization by CBE that digital payments through EFT enhance the flow of cash in the economy, hence increasing the GDP.

RTGS	• Owned and operated by the Central Bank of Egypt. • Based on the latest business concepts in large value payment systems and state of the art technology. • Settlement is final and irrevocable. • Settles both single payment requests and netting results of clearing houses. • Settles the cash leg of securities transactions, on a delivery versus payment model 1, once a day.
Clearing Houses	Three clearing houses settle their netting results in the RTGS: • Cheque Clearing House • National Switch ACH, • Stock Exchange
Participants	All banks holding accounts with the Central Bank of Egypt are direct participants in the RTGS, and participation is mandatory for all banks
Meeza	• Egyptian National Payment Scheme (NPS) developed by Egyptian Banking Company (EBC) which includes: the Meeza Digital for mobile wallets which has reached 19 million accounts; and Meeza cards for banking which is currently standing at 6.6 million cards • Prepaid card aimed at transformation towards a less cash society • Will lower the fees thus support interoperability among mobile wallets

4.1.1 *Market Products*

The CBE team opined[91] that unlike in the majority of sub-Saharan Africa, mobile money in Egypt is bank-led, with a bank being the service provider. The role of the MNO is more peripheral, limited to providing communications infrastructure and/or agency services. Mobile payment service was launched in April 2013. According to EBC, Egypt has 23 Mobile Wallets Service Providers, which offer money transfer, payment using QR Codes in shops, online purchases, and payment of merchants.

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91 Meeting with CBE officials

QNB Al-Ahli E-wallet	CIB E-Wallet
Allows customers to transfer money and pay bills directly from mobile in a convenient, fast and secure way.	Mainly to support online store purchases. All 23 wallets have the same features and were all launched in partnership with banks.

Figure 50: E-wallet Comparison

4.1.2 *Pricing structure for digital payments*

Pricing for mobile wallets in Egypt is based on the terms and conditions of partner banks, as well as the tariff charts.

5. POLICY AND REGULATORY FRAMEWORK

The CBE has issued several regulations in addition to the less cash law that was issues under the umbrella of the national payment council to endorse Fintechs and digital financial services. These included: mobile payment regulations; simplified KYC; and due diligence procedures for customers of mobile payments in cooperation with the Egyptian AML unit. During the COVID-19 pandemic, the bank issued a circular on March 20th, 2020, with measures aimed at curtailing the spread of the pandemic.

The power to license, supervise and regulate financial service providers in Egypt across different departments and ministries. These are summarized below.

<table>
<tr><th colspan="3">Policy and Regulatory</th></tr>
<tr><th>Policy/Regulation/Directive</th><th colspan="2">Key Issues</th></tr>
<tr><td>The Consumer Protection Law</td><td colspan="2">• Establishes the Consumer Protection Agency.
• Outlines the protections and rights for consumers and the responsibilities of service providers, suppliers and advertisers, as well as penalties for violation of the rules defined in the Law.</td></tr>
<tr><td>Anti-Money Laundering Law, Executive Regulations of the Anti-Money Laundering Law, Presidential decree no. 164 for 2002, Prime Minister decree no. 1599 for 2002</td><td colspan="2">The law imposed certain obligations on financial institutions, including banks operating in Egypt, their foreign branches and branches of foreign banks operating in Egypt, to combat money laundering.</td></tr>
<tr><td rowspan="6">Central Bank of Egypt (CBE) - Regulations Governing Provision of Payment Orders through Mobile Phones</td><td colspan="2">Govern payment orders through mobile phones. The CBE's approved regulations cover issues surrounding the following topics:</td></tr>
<tr><td>1</td><td>Supervisory Regulations</td></tr>
<tr><td>2</td><td>Management of System Accounts</td></tr>
<tr><td>3</td><td>System Security Requirements</td></tr>
<tr><td>4</td><td>Consumer Protection</td></tr>
<tr><td>5</td><td>Responsibilities of Service Providers</td></tr>
<tr><td>The rules governing the provision of mobile payment services, version 2016</td><td colspan="2">Rules now specify issuance and interoperability guidelines for banks, and allow customers to receive cross-border family remittances into their respective mobile accounts in a simple, convenient and fast manner</td></tr>
<tr><td>National Telecom Regulatory Authority (NTRA)</td><td colspan="2">Government-approved regulatory and competition Authority that was established in accordance of the Egyptian telecommunication regulation law No. 10/ 2003 as the national authority equipped to regulate and administer the telecommunications</td></tr>
</table>

Table 36: Policy Framework

5.8.1 *Interoperability*

The Central Bank revealed that the bank is ready for digital transformation, and regulations are already being promulgated into the DFS space. The new regulations stipulate the activation of interoperability among the different payment schemes. This therefore implies that, it is now possible for a customer of a particular mobile payment scheme, to make a payment to another customer who is associated with any other mobile payment schemes. Banks that had been licensed by CBE to provide mobile payment services, were given a grace period to avail the interoperability service to their customers. The Bank noted that interoperability is now active between mobile wallet accounts and the bank accounts.

6. PICTORIAL FOCUS

Figure 51: Pictorial Focus - Egypt

APPENDIX 8: ETHIOPIA

1 MACRO-ECONOMIC OVERVIEW

With a population of over 108 million people, the economy of Ethiopia is primarily mixed and transitional with a large public sector, and government owned entities controlling the banking, telecommunication and transportation sectors. The IMF estimated that the GDP per capita would be US$953 by 2019[92]. On the other hand, the AFDB estimated that the GDP growth would reduce to an estimated 7.4% as a result of social unrest and fiscal consolidation to stabilize the public debt.

• Mobile penetration at 0.3% • Internet penetration at 18.6%	• Formal bank account at 34.8% • Informal sector as a percentage of GDP at 39% (2015)	Median age of 17.9

Table 37: Key Statistics - Ethiopia

Ethiopia is majorly cash-based society, however, there is progressively more development in its telecommunication and information technology infrastructure. In this regard, a cashless society can be achieved. The Government of Ethiopia is considering introducing cashless transactions among state-owned institutions as part of its efforts of cracking down on illegal underground currency transactions.

1.1 *OBSERVATIONS FROM MSMES IN ETHIOPIA*

1.1.1 *MSME Classification*

The definition and classification of MSMEs in Ethiopia is a complex one. For the purposes of this study however, where there is a conflict with the COMESA classification, the research will use the COMESA classification which is primarily based on the number of employees.

1.1.2 *The MSME Profile*

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business. This is useful in understanding the entrepreneurial densities across these classes. A total of 17 MSME's participated in the study in Ethiopia.

1.1.3 *Demographic Profile*

In terms of gender, a majority of the respondents were male, with females constituting 41% of the total number of respondents. With regard to age, as shown in Figure 34, 65% of the respondents were the youth, i.e. aged below 34 years. This provides an opportunity for the government to expand business support services to support young MSME owners as they try to deal with the high unemployment rate among the youth in Ethiopia. At least 82% of the respondents were

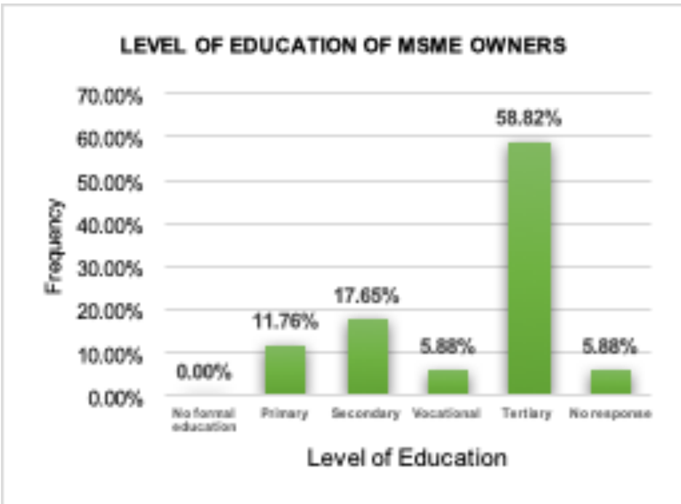

Figure 52: Age and Level of Education - Ethiopia

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92 World Economic Outlook Database, October 2019". *IMF.org*. International Monetary Fund. Retrieved 15 February 2020.

educated up to secondary level, with almost 60% having some form of tertiary qualification. The reasons for starting a business have an implication on the financial strength and long-term survival of their enterprises. Sixty-four (64%) of the youth started their businesses because they considered themselves to be entrepreneurial; 18% got into business out of desperation, while a similar percentage did not respond. Ethiopian youth seem to have better financial capabilities, as nine (9%) of the youth invested between US$ 51 and US$ 100 into their business, while 91% invested over US$ 251; on average this figure was high in comparison to other African countries.

At least 65% of the respondents indicated that they started their business because they were privy to an entrepreneurial opportunity worth exploiting. Such MSMEs are more likely to exert effort into growing their businesses by taking advantage of the opportunities that are available in the market, and are more likely to be early adopters of new trade practices and payment platforms.

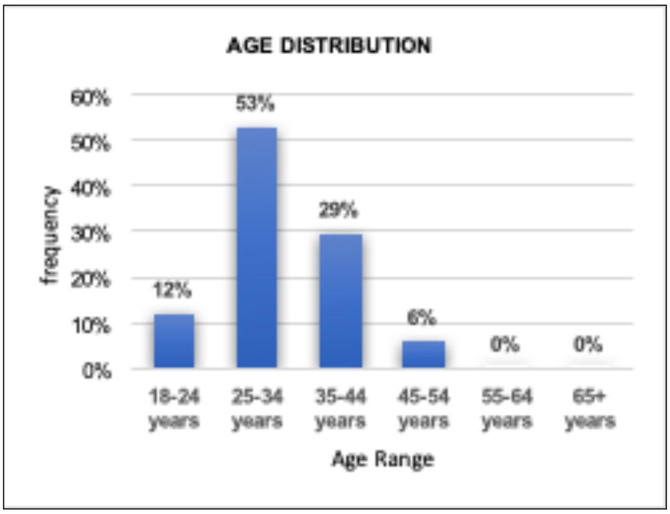

Figure 53: Age Distribution- Ethiopia

In terms of location, the respondents were heavily skewed towards urban areas (82%), primarily in cross-border trade (29%), retail and wholesale (21% and agriculture (50%). The respondents who were domiciled in the rural areas were equally split between agriculture and construction sectors. Based on gender, the study shows that female respondents are more involved in cross-border trade (about 42%), with 29% being in agriculture, and a similar percentage in retail and wholesale.

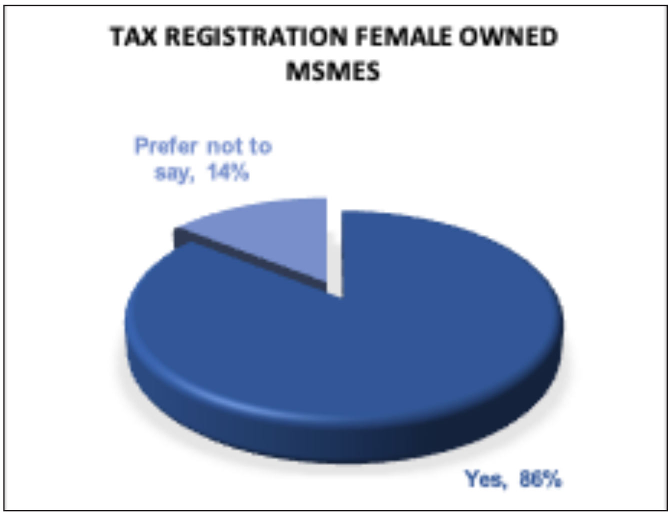

Figure 54: Tax Registration- Ethiopia

The ownership of independent businesses such as sole traders is 67% in favor of the men, while women own 33% of all sole traders' businesses in the study. As the business size grows, the proportions are skewed towards women with 100% of the partnerships being owned by females. A half of the limited liability companies were owned by females, while the other half were male owned. In addition to the foregoing, 33% of the private business corporations were owned by females, and 67% were owned by males.

Ethiopians are formal and their businesses show some element of willingness to formalize and grow from sole traders to limited liability companies. Assuming that tax registration can be used as a measure of formalization, Figure 35 shows the degree to which MSMEs consider the importance formalization of their businesses. Eighty-six (86%) of the female owned businesses were registered for tax purposes, while 14% preferred not to disclose.

1.1.4 *Market Access and Penetration*

In terms of local trade, six (6%) of the MSMEs preferred that they should be paid within 24-hours, 29% preferred to be paid before delivery, while 65% preferred payment immediately after delivery of goods and services. In line with this, 59% of the MSMEs indicated that if they were to engage in international trade they would expect to be paid instantly after delivery, while 18% expect payment before delivery, and 17% preferred being paid within seven days of delivery.

In analyzing their markets, 94% of the respondents indicated that they were export oriented, while 6% traded countrywide. The study shows that 88% of the MSMEs were members of trade association, while 12% were stand alone and not affiliated. In terms of using associations, 76% indicated that they used the associations to access both internal and foreign markets, while 18% did not consider Associations as a necessity.

Similarly, some respondents (35%) indicated that they use unregistered middlemen to access markets; 47% did not use unregistered middlemen, and 18% did not disclose. A gender analysis on the use of unregistered middlemen indicated that 43% and 30% of women and men respectively, use them us unregistered middlemen to access markets.

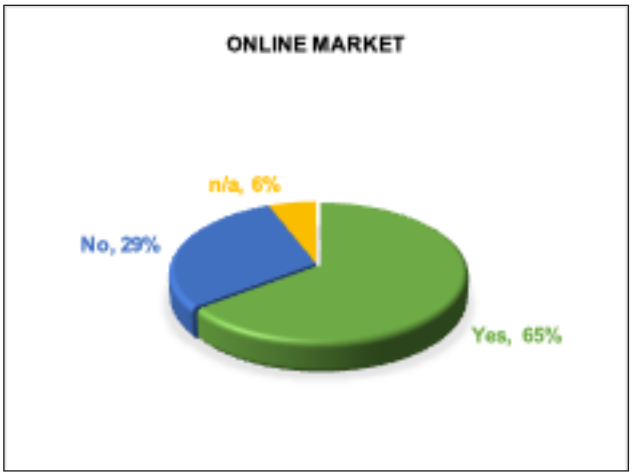

Figure 55: Online Market Access- Ethiopia

As shown in Figure 36, a majority of the respondents (65%) indicated that their products could be ordered for online, with 29% reporting that their products could not be ordered online, and six (6%) feeling that the question was not applicable to their businesses. In terms of international trade, 41% of the respondents indicated that they used digital platforms to engage in cross-border trade, while 59% indicated that they did not.

With regard to the probability of ordering for inputs online and paying digitally, 41% of the MSMEs indicated they would consider doing so although all the respondents bought their inputs locally; 24% would not, while another six (6%) did not know, and 29% would need more information. With regard to digital sales, 53% of the respondents would consider selling and receiving payments digitally, 29% would not consider doing so, while 18% would need more information.

The study equally sought to understand whether respondents would use mobile payment solutions in cross-border trade, with 59% of the MSMEs responding in the affirmative.

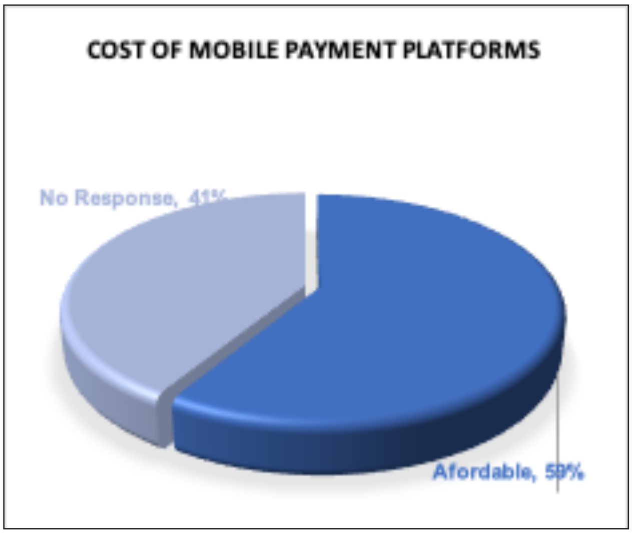

Figure 56: Cost of Mobile Payment Platforms: Ethiopia

Regarding access to information, 14% of the respondents got their market information from friends and relatives, 34% from the internet, 17% visit the market, and the rest get information from newspapers and brochures. So as to ensure that they were getting accurate information, 71% of the MSMEs would be happy if the market information was sent to their phones. This therefore presents an opportunity to share market information with MSMEs digitally for convenient access, thereby saving them time.

With regard to training on digital platforms, all respondents indicated that they would need some form of training, with over 82% expressing willingness to enhance their digital skills. Furthermore, the majority of respondents, 88% consider the digital business field to be one of the most important indicators of success in the 21st century economy. Consequently, social media is viewed as an important business tool.

The study also sought to understand how respondents view the cost of mobile payments. A majority of the respondents (59%) think they are affordable. The important Value-Added Services (VAS) that MSMEs would want to have access to on their mobile devices include: bank statements (25%); commodity price information (17%); currency exchange rates (24%); market pointers on products high in demand (17%); and credit worthiness statements 16% are. On the impact of digital payments on turnover, 82% of the respondents believe digital payments systems have the potential of improving their annual turnover. A similar response was received with regard to the importance of a regional payment system for cross-border trading.

1.1.5 *Trade and e-Commerce facilitation*

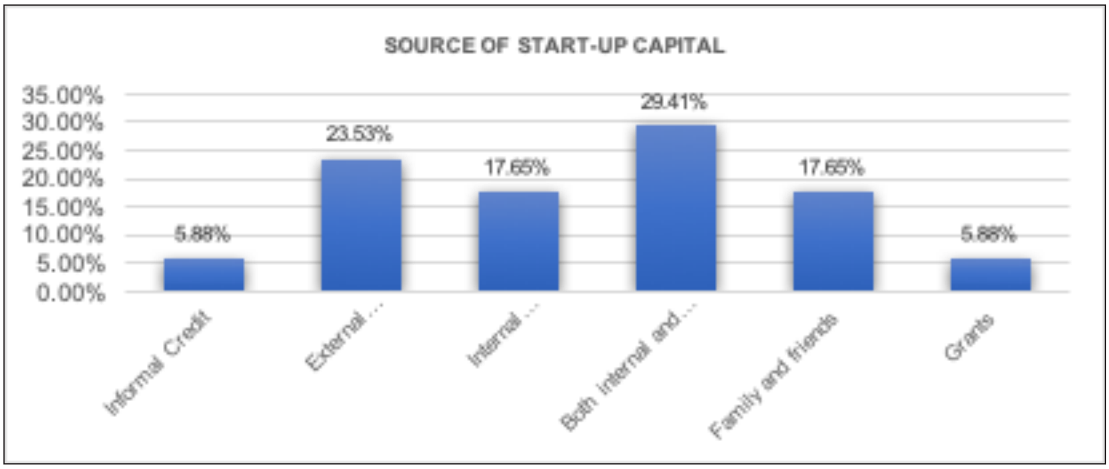

Figure 57: Sources of Start-up Capital - Ethiopia

Figure 38 shows that about 29% of entrepreneurs started their business using money from both internal and external financing, 17% were assisted by friends and family, another 17% from savings, six (6%) used informal credit channels, while about five (5%) got grants. The issue of both external and internal finance was explained during further discussions with the MSMEs, who indicated that these were loans that they received from informal credit institutions, plus their own savings.

The study, as shown in Figure 39, revealed that 94% of the MSMEs had a transacting account, which is an indication of a very high level of access to financial services among them. This was also consistent across gender, and maturity of the business.

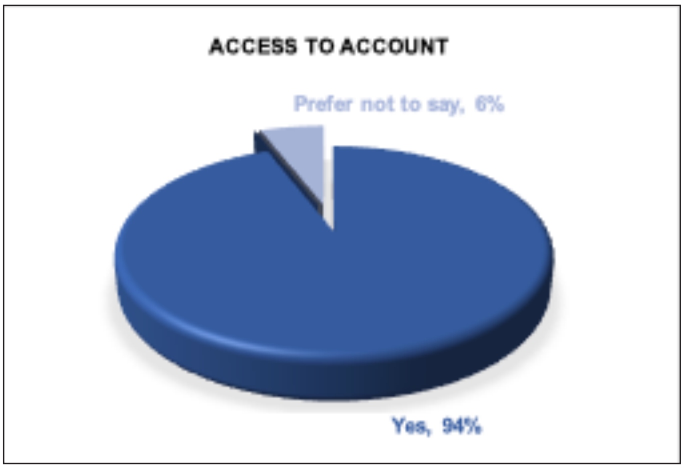

Figure 58: Access to Banking Account - Ethiopia

In terms of satisfaction with their transacting accounts, 89% of the respondents indicated that they are at least satisfied with the services they were getting from their business bank accounts. Respondents indicated that the bank was the preferred method of payment with 62% of the MSMEs using it, while cash and mobile money were split evenly at 19% each.

To access financial services, 70% of the respondents travelled less than a kilometer to be served, 18% travelled between 1 - 5kms to get financial services, six (6%) travelled between 5-10 kilometers, while six (6%) did not know the length of distance they travelled.

1.2 STAKEHOLDER CONSULTATION MEETINGS

1.2.1 *Ministry of Innovation & Technology (MINT)*

The Ministry of Innovation & Technology (MINT) expounded on its digital literacy initiative which is being implemented throughout Ethiopia to bridge the digital divide in the society. The Ministry is leveraging on a multi-platform piece of technology that caters for different sectors including, but not limited to, education, health and agriculture. The technology is intended to be used for e-Commerce. It was pointed out that additional budget assistance is needed to make mobile phones accessible to the public.

It was further noted that MINT is championing 100 initiatives on electronic services in Ethiopia by learning best practices from countries such as India and Rwanda to support most of the ministries, including Foreign Affairs, Transport Authority, and vital registration office, Ethiopian Management Institute, Audit Board and others. MINT is also working in close collaboration with the Ministry of Women and Youth on the digital initiatives such as Jamy Pay for microfinances. The digital content will be ready in June 2020, with 10 local languages. It is important to note that MINT is also developing the Ethiopian Electronic Government Network, which is aimed at enhancing the country's connectivity.

Additionally, MINT is involved with an initiative aimed at enhancing the ease of doing business in the country. In this regard, an Institute which is within physical proximity of MINT is focusing on the initiative's operational activities and awareness campaigns.

1.2.1.1 *Mandate*

The Ministry is formulating various regulatory frameworks such as enterprise architecture, interoperability standards, and Public Key Infrastructure (PKI). It is looking for further donor support with regard to interoperability standards.

MINT focuses in the following three main areas: innovation and research; ICT; and product and production environment related to technology

1.2.1.1 *Challenges*

The main challenges being faced during implementation of digital initiatives are as follows:

- Connectivity issues throughout the country
- Resistance to change by the civil service sector
- Leadership change issues not sustaining the initiative that was started earlier

1.2.2 *Ethiopian Chamber of Commerce and Sectorial Associations (ECCSA)*

The study found the services offered by ECCSA to be as follows:

1.2.2.1 *Trade and Investment Promotion*

- Provision of business information to the business community
- Business Advisory
- Business Networking
- Trade Fairs/Exhibition
- Investment Guidance
- Exporters Guidance
- Importers Guidance
- Issuance of Certificate of Origin
- Document Authentication (Export)
- Affidavit of support for the business community

1.2.3 *Research and Advocacy*

- Research
- Publications
- Advocacy

1.2.3.1 *Capacity Building*

- Need based training
- Technical and skills development
- Preparation of strategic plan, project proposal, etc.
- Soliciting support for members from donors

1.2.3.2 *Legal Counsel & Arbitration*

- Legal Counseling
- Arbitration

ECCSA further pointed out that the chamber is composed of the following members: Representatives of Regional Chambers of Commerce and Sectoral Associations, Chamber of the National Sectoral Associations, and City Chambers of Commerce and Sectoral Associations; and the sectoral associations established at national level. The Chambers of Commerce and Sectoral Associations that were established in Addis Ababa and Dire Dawa shall become members of the Ethiopian Chamber of Commerce and Sectoral Associations

1.2.3.3 *MSME Challenges*

The goods that are dealt with in the cross-border trade from Ethiopia are khat (mira), livestock, agricultural goods, spices, sesame, and honey, amongst others. It was established that the active cross-border trade routes are Djibouti, Sudan and Kenya.

In terms of digital payments, the following challenges are faced by MSMEs in Ethiopia: Infrastructure issues; Skills gap; and the use of cash (only 15% of them use digital platform)

1.2.4 *Horticulture Producers and Exporters Association*

It should be noted that horticultural products rank as the fifth top most generators of foreign exchange in Ethiopia.

The smallholder farmers are incorporated in the Association to supply the majority of exported products. It was highlighted that the Association provides various services its members including policy and advocacy, capacity building and business promotion and information.

1.2.4.1 *Challenges*

It was further noted that although cross-border trading can be conducted using digital platforms, there are some challenges that could hinder its success including: The existing policy framework; Infrastructural issues such as the telecom network; and Customs inspections during cross-border trading.

1.2.5 *National Bank of Ethiopia (NBE) and National Payment System*

During discussions that were held on the DFI initiatives that were being undertaken by the Central Bank, it was found that Member States would be in a position to control money laundering and illegal money transfers, as a result of incorporating digital financial transactions among small-scale traders.

The NBE expressed willingness to learn about digital payments from experienced countries such as Kenya, Zimbabwe, and Tanzania, which had performed well in this field. The bank noted that mobile money can be implemented through MNOs and other financial service providers such as banks.

1.2.5.1 *Challenges*

The bank highlighted the following challenges with regard to the payment system initiatives: interoperability; digital payment strategy; internal infrastructure; and policy harmonization.

1.2.5.2 *Settlement currency and exchange rates*

Existing challenges with the implementation of mobile payment systems were as highlighted as follows:

- Last mile infrastructure (Electricity, Mobile infrastructure etc)
- The regulatory framework in place
- Supervisory technology in place
- Risk minimization techniques in place

The NBE stated that the absence of a Payment Systems Act it had made it impossible to use the existing REPSS, despite the fact that the RTGS was in place. NBE indicated that it was working on both the Payment Systems Act and the National Digital Retail Strategy. Scarcity of foreign exchange was the other issue that was established to be prohibiting the liberalization of payments.

In a related development, NBE indicated that crypto currencies such as bitcoins had no legal ground, which had resulted in the bank drafting a proposal against them. It was further noted that the bank was revitalizing Eth-Switch, which will serve as a national switch with interoperability of private switches and future initiatives of digital retail payment.

The DFI that uses mobile technology is important because the country has a total of 45 million mobile subscribers. On the other hand, digital trade along the borders is useful for earning the country foreign exchange. It was noted that trust and confidence were the most important factors for the success of digital payment, while value added innovations in addition to the usual digital payment would attract more customers. An estimated 10 million people were said to have been included in terms of digital payments of salaries and other utilities, among others. NBE is also working on awareness campaigns to drive DFSs, which have been captured under the National Financial Education Strategy.

1.2.5.3 *Infrastructure*

It was noted that the NBE was increasing the commercial banks' financial infrastructure in terms of branch, division, ATM and agent's expansion.

The study established that in 2013, 48% of the population were active savers, while 42% took loans without the involvement of the banking industry, because they used the informal sector. As at the time of the study, 12% of the population was using DFSs.

The following issues were being handled through the monetary policies to fast track Digital Payments:

- Tracking the velocity of money
- Indirect instruments
- Capital account liberalization
- Prefunded account
- Mobile money linkage with the national switch (Eth Switch)

According to the study conducted on the establishment of the payment system directive it was noted that there were: about 16 million debit cards that were in use nationally; 5,000 ATM machines in the country; about 5,000 connected bank branches; over 12,000 banking agents countrywide; well over four (4) million mobile banking subscribers in the country; three (3) million mobile money subscribers in the country; 600,000 internet banking subscribers; 1.9 million active mobile accounts at the bank level; and 11.4 million transactions registered on quarterly basis. In addition to the foregoing, it was found that the dominant system was the Commercial Bank of Ethiopia (CBE) Birr, which was implemented by the CBE and had 1.7 million subscribers; and that seven (7) MFIs were involved in mobile and agent transactions.

1.2.6 *National Switch (Eth Switch)*

The study established that the Eth Switch was inaugurated in 2011 with the ownership of financial institutions and the National Bank of Ethiopia (NBE). There were about 18 banks involved in the ownership including MFIs.

The main purposes of Eth Switch were as follows:

- Providing electronic retail payment switching and clearing
- Card issuance and management
- Related infrastructure services
- Use of electronic retail payment services in the financial sector, and the country at large

It was established that Eth Switch was willing to provide a shared infrastructure service for the financial inclusion agenda, and initiatives such as the CBC regional payment solution, in-line with the NBE directive. Eth Switch provides an interoperable infrastructure to facilitate payments between payees and payers, and believes that there is an untapped market that covers big transactions among MSMEs at the borders. It has a five (5) year strategy, aimed at scaling up the digital transactions through channel interoperability, and enabled services.

The objectives of Eth Switch are as follows:

- To establish a national central financial switch system and infrastructure;
- To provide card and retail payment switch and clearing service;
- To provide card production and personalization services;
- To establish the system and infrastructure for card payment and its management;
- To provide gateway service for international card payments;
- To provide call center services and maintain service level agreement with financial institutions;
- To conduct research, provide technical support and advisory services for member financial institutions in areas related to card and retail payment systems, business development, risk management, security, dispute resolutions, and standardization;
- To undertake other services related to the above stated objectives, subject to the approval of the NBE and other authorities.

The settlement period used under the model of Eth Switch is t +1. The clearance is done at Eth Switch level, while the settlement is done from the NBE side.

Eth Switch pointed out the following issues, in respect of rolling out of the payment systems:

✓ Technical Perspective in terms of plugging in of the systems, in the environment and interoperability
✓ Regulatory perspective with agreement from the Central Banks
✓ Readiness of the market

1.2.7 *Commercial Bank of Ethiopia (CBE)*

Commercial Bank of Ethiopia (CBE) is the leading national bank in terms of revenue and capital. CBE has a total of 1,600 branches and 6,000 agents, out of who 3,000 agents were active. The bank revealed that the DFI initiatives that were underway were as follows:

✓ Inclusion of the unbanked society
✓ Investment in the digital switch
✓ Internet banking
✓ Mobile banking
✓ Investment in capacity building human workforce to support the physical infrastructure
✓ Investment in an open API payment gateway
✓ Leading strategy on digital banking

It was noted that CBE had established an SME division as a credit department, and alongside a digital business division for agency banking. CBE was also working on the incentives that were required to digitally include unbanked SMEs.

1.2.7.1 *Challenges*

The following challenges were highlighted with respect to the SME market segment:

✓ Limited capacity of SMEs to adopt technology
✓ Collateral issues to access funding from CBE
✓ Institutional governance problem of SME businesses

1.2.8 *Development Bank of Ethiopia (DBE)*

The DBE pointed out that they had an SME banking section that mainly focused on giving out loans for SMEs, as a way of creating jobs specifically in the agricultural sector. The agricultural industry had problems with accessing finance, considering the fact that they did not meet the collateral requirements set by the banking industry. The main benefit SMEs gets from DBE is that they are not required to provide collateral when accessing loans. DBE is established to address such kind of gaps.

DBE has about 76 branches and 12 district offices that are mandated to: recruit SMEs; do due diligence; project financing; and lease financing. The bank does not have an agents banking system at DBE. It also has finance and microfinance institutions, and cooperative agencies.

The minimum capital raised for an SME is one (1) million Birr, whereas the maximum is 30 million Birr. A grace period of four (4) to six (6) months is given based on the kind of business, and in-line with priority of the government agenda.

The DBE addresses shortage of working capital issues for the following industries:

- ✓ Mining
- ✓ Agricultural mechanization
- ✓ Tourism

1.2.9 *Association of Ethiopian Microfinance Institutions (AEMFI)*

The Association of Ethiopian Microfinance Institutions (AEMFI) was formed as a non-profit, non-governmental association of the Ethiopian microfinance institutions. This is in line with Micro Financing Business Proclamation NO. 626/2009 and Micro-finance Business (Amendment) Proclamation No 1164-2019 under which microfinance institutions in Ethiopia are regulated by the NBE. Financial inclusion is considered to be low in Ethiopia, as compared to its neighbors. It was also noted that access to financial and digital services was limited in both the rural and urban areas. Access to financial institutions was equally expensive in terms of time and money. A customer had to travel to the MFI branch to apply for the loan, and travel again to access cash. Many other trips were made to do the repayments, thus making the loan process more expensive.

1.2.9.1 *Operating Environment*

The study found that the financial space in Ethiopia, which had banks, MFIs, SACCOs and insurance companies and major players was mostly dominated by local private players. However, AEMFI was more concerned with the group categorized as ‘the missing middle’. It was indicated that there were customers whose needs were addressed by the banks, others whose needs were addressed by MFIs, and those customers who were in the middle, whom AEMFI was concerned about.

1.2.9.2 *National Initiatives*

The National Digital Payments Strategy phase 2 which is funded by UNCDF looks at identifying the key drivers for the digitization of payments, based on lessons learnt from other markets who have developed similar strategies.

1.2.9.3 *Association Initiatives*

The association is working towards improving digital awareness among its members. Trainings for members on digital inclusion are ongoing.

With the help of the International Fund for Agricultural Development (IFAD), AEMFI had sourced for a core banking system, which would be available to all MFIs who may have wanted to use it. A total of seven (7) MFIs were already using the core banking system, and five (5) others were expected to join the system in the first quarter of 2020.

The data center was to be at the AEMFI head office. It was expected that this would allow MFIs to monitor customers, by ensuring that they were not borrowing from more than one MFI at a time.

Feedback from the seven (7) MFIs shows that they were happy with the system because they were able to monitor their customers, and manage their graduation models, based on data.

1.2.9.4 *Membership*

The association has a total of 34 members, who specialize in different segments of the economy. Some members specifically concentrate on cross-border trade, and have branches at the border.

1.2.10 *MSME training with the Ethiopian Chamber of Commerce Sectorial Associations (ECCSA)*

The MSMEs were trained, and the survey conducted on the same group. Thirty (30) MSMEs were identified and invited by ECCSA, from which 18 responded and participated in the training. It was noted that the MSMEs were operating along the borders of Ethiopia with Djibouti, Kenya, and South Sudan, trading in the following goods: cereals, pulses and old seeds; flowers; strawberry; spices; and agri products.

The MSMEs were encouraged to make use of the regional payment system, which was to be rolled out by CBC.

1.2.11 *Ethio Telecom*

As an integrated telecom operator, Ethio Telecom highlighted the different digital packages in place including the call on credit service that was being used by 17 million customers. The operator pointed out that it was waiting for a financial inclusion law from the NBE, and the telecom regulatory role had recently been assigned to the Ethiopian Communication Authority (ECA).

Ethio Telecom further recommended the following approaches for the implementation of the mobile payment solution:

✓ Telecom operator led Mobile money
✓ Bank led mobile money
✓ Mixed approach

Ethio Telecom indicated that it could be the lead implementer in the Ethiopia context based on the following advantages:

✓ While there used to be 65 million customers, this number reduced to 45 million active customers when the database was cleaned following the 30 days rule for active customers. ITU's recommendation for active customers is about 90 days.
✓ Out of the 45 million active customers, 44 million are mobile subscribers, whereas one (1) million are landline and broadband subscribers
✓ In terms of network coverage, Ethio telecom covers about 85% of Ethiopia's geographic area
✓ Approximately 90% of the population is covered with ethio telecom services
✓ More than 16,000 rural kebeles (administrations) are connected with wireless telecom masts
✓ There are about 22.7 Million mobile and fixed lines internet users
✓ There is a roll out plan by Ethio telecom to increase its network coverage.

1.2.11.1 *Policy framework*

Ethio Telecom is waiting for the draft directive on digital payment to be approved by the Council of Ministers. It also aims include low value transactions as per DFI initiatives.

Ethio Telecom stated that a National Mobile Money infrastructure is the starting point for Ethiopia. It was also noted that some digital services have already been rolled out such as the Customer to Customer (C2C) and Government to Customer (G2C) payments.

1.3 *PAYMENT INFRASTRUCTURE LANDSCAPE*

Ethiopia had made remarkable progress in the modernization of the country's payment system, as envisaged in the Vision and Strategic Framework for the Modernization of the NPS in Ethiopia, of May 2009. Notable developments included the establishment of an appropriate legal framework, including the Payment System Proclamation.

The Central Bank is the overseer of the payment system, and in 2011, World Bank funding came up with an architectural design of the payment system.

Ethiopian Automated Transfer System (EATS)	• Consist of the RTGS system and the Automated Clearing House system. • Introduced cheque standards and automated cheque processing • Required implementation of state-of- the-art core banking systems.
EthSwitch	• Unified payment system formed by all the banks in Ethiopia, and with the backing of the Ethiopian Bankers' Association and the NBE. (17 banks connected) • Following implementation all the banks' payments are now centralized. • Most banks had bilateral agreements and small switches that served a few banks in private arrangements. • Intended to encourage interoperability and encourage financial inclusion. • Switch has direct and indirect participants thus it is all-inclusive, having processed 2.5 million transactions worth over 2 billion Birr based on a combination of prefunding and netting system. T+1 system and settlement are done at the central bank.
CBE SWITCH	• Makes use of ACI's market-leading UP Retail Payments solution to optimize its payments environment, enabling it to transform its legacy systems, accelerate innovation and implement real-time, any-to-any payment capabilities
REPSS	• Not yet part of the COMESA clearing system because of regulatory limitations. • Payments proclamation does not allow them to participate at the moment. However, the bank is technically ready for any integration with any system.

1.3.1 *Market products*

The meeting with the NBE revealed that it was working on a Bill that would allow non-financial institutions to engage in mobile money transfer. Initially, the regulations only allowed mobile money operations that were led by financial institutions. In a bid to create a more inclusive financial sector, NBE was considering decentralizing mobile transfer services. Then, only banks and microfinance institutions offered mobile money services.

Ethio Telecom's delegates believed that they would be able to serve the country's vast population if they were allowed to offer mobile money. The MNO was already serving over 50 million customers majority of whom were accessing nano loans for airtime.

	M-BIRR	**Hellocash**	**Other**
Features	• allows mobile transactions and available 24/7 • provided by the 5 largest Micro Finance Institutions • additional functionalities include: ○ Withdraw cash at an agent ○ Transfer money (P2P) ○ Buy mobile top-up ○ Pay bills (P2B) ○ Buy goods (P2B)	• mobile money platform • designed for multi banks and MFI's to be interconnected and offer the mobile money service to their respective customers	• CBE-Birr, • Amole

1.3.2 *Pricing structure for digital payments*

Send money to another M-BIRR customer			Send money to a non-registered user			Withdraw cash at an agent		
Min	**Max**	**Charge**	**Min**	**Max**	**Charge**	**Min**	**Max**	**Charge**
1	6000	4.60		1000	10.35		1000	3.45
6,001	7000	7.48	1,001	2000	16.10	1,001	2000	5.75
7,001	8000	8.63	2,001	3000	22.42	2,001	3000	8.63
8,001	9000	9.78	3,001	4000	28.75	3,001	4000	11.50
9,001	10000	10.93	4,001	5000	35.07	4,001	5000	14.37
10,001	15000	14.38	5,001	6000	39.68	5,001	6000	16.10
15,001	20000	18.98	**Pay Merchant**			6,001	7000	17.19
20,001	25000	23.58	**Min**	**Max**	**Charge**	7,001	8000	18.11
25,001	50000	30.00		50	1.00	8,001	9000	19.55
50,001	100000	52.50	51	100	2.00	9,001	10000	20.03
			101	200	3.00	10,001	15000	24.20
			201	6	4.60	15,001	20000	30.86
						20,001	25000	35.79
						25,001	100000	71.88
						100001	200000	103.50
Us$1 = 32 BIRR								
Collect money by a non-registered user						Free		
Get account statement						1		
Pay a bill						4,6		

Source; M-BIRR

1.4 *POLICY AND REGULATORY FRAMEWORK*

In respect to the Policy and Regulatory framework, the power to license, supervise and regulate financial service providers in Ethiopia is spread across different departments and ministries. It is important to note that Ethiopia has proclamations whereas the majority of the countries in the region have Acts. These are summarized below.

Policy and Regulatory	
Policy/Regulation/Directive	**Key Issues**
Prevention and Suppression of Money Laundering and the Financing of Terrorism	• Money laundering and the financing of terrorism.
Electronic Signature Proclamation No.1072/2018,	• Legal framework to promote electronic commerce and electronic government service in the country
	• Legal recognition to the exchange of electronic messages and determine the rights and obligations of participating parties;
	• Legal recognition to electronic signature that promote trust in electronic communication and enable to verify the identity of participating parties, authentication of messages and ensure non-repudiation.
Information Network Security Agency Re-establishment Proclamation, 2013, Proclamation 808/2013, Neg. Gaz. Year 20 No.6	• Ensures the security of advancing · critical infrastructures and industries vulnerable to cyber-attacks.
	• Protect the cyber space, so as not to be a national security threat.
	• Ensure the security of information.
	• Secure information and critical computer-based infrastructure in order to ensure the national interest and citizens' right;
	• Establishes strong institution that coordinates national efforts to realize the security of information and critical computer-based infrastructures and capable to implement national cyber security policy and strategy effectively;
The National Payment System Proclamation No. 718/2011	• Provides for a NPS as an essential component of the financial infrastructure of the country.
	• Provide rules on establishment, governance, operation, regulation and oversight of the national payment system.
Telecommunications (Amendment) Proclamation, 2002, Proclamation No. 281	• It has become imperative to incorporate new regulatory conditions resulting from technological and operational changes at the international level;
Trade Competition and Consumers' Protection Proclamation No. 813/2013	• Commercial activities must be conducted in accordance with the appropriate practice based on the free market economy policy of the country.
National Payment System Proclamation; No4.	• Provides rules and regulations for the NPS to ensure its safety, security and efficiency.
NBE ACH Rule; No.8.	• Regulation of the ACH for the cheques clearing system as part of the RTGS
The Payment Instrument Issuers Directive No.9	• Regulate payment instruments issuers which includes mobile money, wallet and similar digital financial services in Ethiopia.
Automated System; No11	• Is the interbank settlement rule in RTGS
Anti-Money Laundering Proclamation Issued by Financial Intelligent Co.; No.12	• Regulating Money laundering and terrorist financing

1.4.1 *Interoperability*

The MINT is in the process of formulating various regulatory frameworks such as Enterprise Architecture, Interoperability standards and PKI (Public Key Infrastructure), as part of the ease of doing business initiatives.

PICTORIAL FOCUS

Figure 59: Pictorial Focus- Ethiopia

APPENDIX 9: MAURITIUS

1 MACRO-ECONOMIC OVERVIEW

Mauritius is one of the smaller countries in the region, with an estimated total population of 1.3 million. It is ranked as the most competitive and one of the most developed economies in the African region, with average GDP per capita in excess of US$11.7 million.[93]

		
• Mobile penetration at 153% • Internet penetration at 99% • Females using internet at 56.4% (2018)	• Formal bank account at 90% • Informal sector as a percentage of GDP at 35% (2015)	Median age of 38

Table 38: Key Statistics - Mauritius

The Mauritian government is positioning the island as the continent's Fintech hub, with its status as an International Financial Centre acting as a buffer between source jurisdictions, and recipient African states. The government acknowledges that centrality of financial services can help drive development in Mauritius. Improving financial inclusion, through the use of digital financial services, such as mobile money, cards and other technologies, is critical for steering economic development. The government is looking towards the introduction of a "Central Bank Digital Currency."

As of January 2020, the Central Bank reported that the total number of cards in circulation was over 1.8 million out of which there were 297,330 credit cards and over 1.3 million debit cards.

1.1 *OBSERVATIONS FROM MSMES IN MAURITIUS*

1.1.1 *The MSME Profile*

The profile of the MSME owners was analyzed on the basis of age, level of education, gender, location and the reason for starting the business. This is useful in understanding entrepreneurial densities across these classes. Twenty (20) MSME business owners participated in this study in Mauritius.

1.1.2 *Demographic Profile*

Out of the total respondents, 70% were female and primarily urban based, and as reflected in Figure 60 below, only 20% of respondents were under the age of 34, i.e. youth.

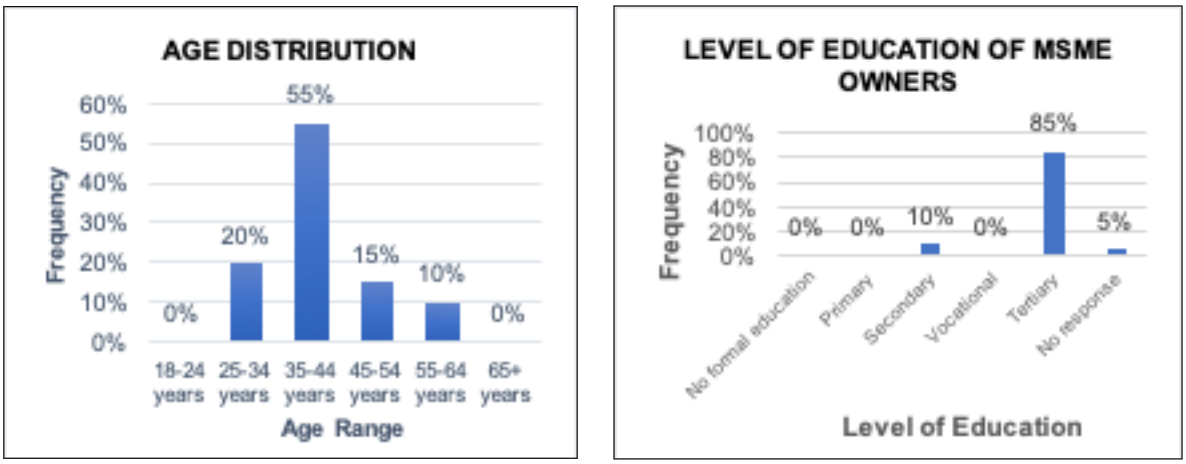

Figure 60: Age and Level of Education - Mauritius

[93] World Economic Outlook Database, April 2019". IMF.org. International Monetary Fund. Retrieved 15 February 2020.

Similarly, with respect to the level of education, 85% of the respondents had tertiary education, while 10% had secondary level education.

From the gender perspective, the study found that under the reason for starting a business, all men did it because they considered themselves to be entrepreneurial. In comparison, 86% of the women considered themselves as natural entrepreneurs, as opposed to 14% who turned to entrepreneurship out of desperation. In terms of the size of the enterprise, 79% of the women ran micro-level enterprises, while 14% had small enterprises.

Cumulatively, the study shows that a majority of respondents were in services, 50%, with the balance distributed in the agriculture, tourism, retail and wholesale, cross border trade and construction sectors. There were no significant variations in the sectoral distribution across genders.

1.1.3 *Trade Facilitation and Ecommerce*

It has been established that access to finance is one of the challenges that faces MSMEs is with regard to access to finance. As illustrated in Figure 61, the majority of respondents used their own savings to start their businesses (41%), while those who received support from family and friends were 27%.

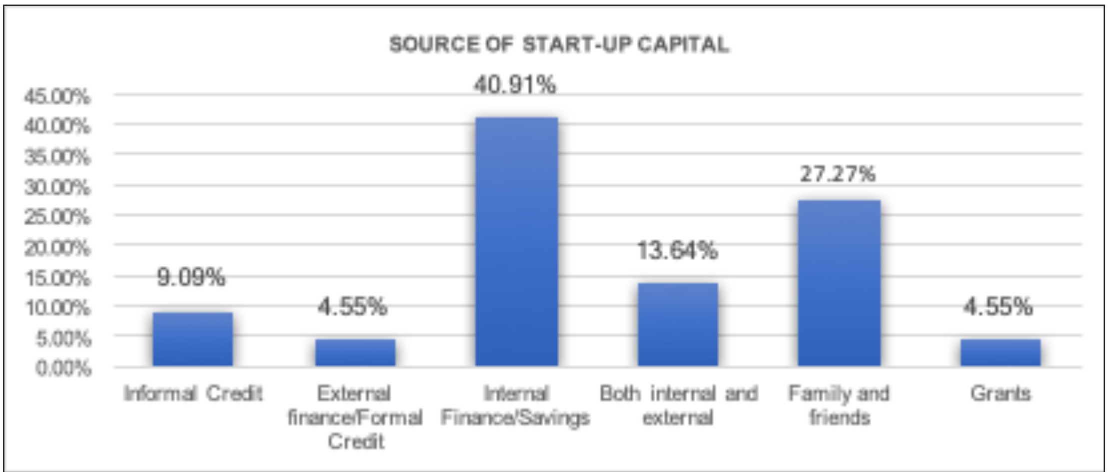

Figure 61: Sources of Capital- Mauritius

Only about five (5%) of the respondents accessed formal finance, which is reflective of the challenges which MSMEs have been facing in trying to access credit from formal financial institutions. None of the youth and women who participated in the survey got financial assistance from formal credit institutions, which may be largely attributed to their lack of collateral.

Having transaction account is considered a useful starting, for one to be able to participate in trade. About 80% of the respondents had a transacting account, which reflected a high level of financial access amongst the MSMEs. In terms of gender, only 67% of the male respondents indicated that they had a transaction accounts, compared to 86% of the females, implying that access to financial services is not a significant constraint for women in Mauritius. In terms of satisfaction with their transacting accounts, 65% of all respondents indicated that they were at least satisfied with the services they were getting from their business bank accounts. Additionally, payment through the bank was highlighted as the most preferred payment method by 67% of the respondents.

In order to access financial services, 45% of the respondents travelled less than a kilometers to be served, 25% travel between 1 - 5kms for the same, and another 10% travelled between 5-10 kilometers, while 15% did not know the distance. In terms of the mobile technology, 90% of the respondents used smartphones, while 10% used the basic feature phones.

With respect to local trade, 45% of the respondents preferred being paid instantly upon contracting; 40% preferred payment before delivery, while 15% preferred payment immediately upon delivery. Similarly, 25% of the MSMEs indicated that if they were to engage in international trade, they expected to be paid instantly upon contracting, five (5%) expected to be paid within 24 hours, 35% before delivery, while 20% expected payment after seven (7) days.

1.1.4 *Market Access and Penetration*

An analysis of the MSMEs markets was done, with the following outcomes: 45% of the respondents indicated that they were export oriented; 15% traded within their municipality of operations; while 40% traded countrywide. The study also shows that 80% of the respondents were members of trade associations, while 20% were stand alone and not affiliated to any association. Older businesses, which were over three years old were more likely to belong to an association.

The associations were used primarily to access both local and foreign markets. It was also observed that while a majority of respondents indicated that they belonged to associations, at least 45% of the respondents were skeptical about the services they got in return for affiliation. As a result, some of the respondents (20%) still used unregistered middlemen to access markets.

Figure 62: Online Market Access - Mauritius

As shown in Figure 62, 55% of the respondents indicated that orders could be placed for their products online, 35% reported that their products could not be for ordered online, while 10% thought the question was not applicable to their business.

With respect to international trade, 45% of the respondents indicated that they engaged in cross-border trade through digital platforms, while 35% indicated they did not, and 15% felt the question was not applicable to them.

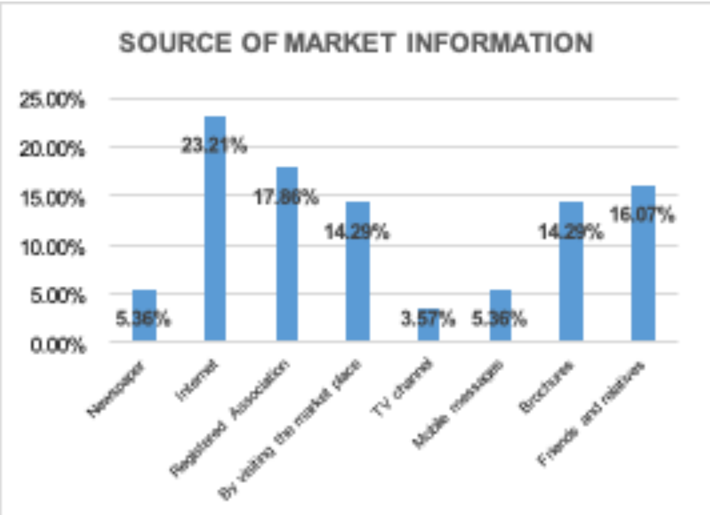

Figure 63: Sources of Market Information- Mauritius

Despite procuring inputs locally, at least 65% of respondents were receptive to the idea of ordering and paying for inputs online, while 25% would require more information before they could order online, reflecting on the need for increased education and awareness of digital trade. This was also fairly consistent with responses relating to the prospect of selling online.

The study equally sought to understand whether MSMEs would use mobile payment solutions in cross-border trade. About 65% indicated they would most likely use mobile payment solutions in conducting cross border trade, five (5%) would not use mobile payments, and 30% were not sure. Out of those that were most likely to use mobile payments, 15% reported that they would use mobile payments because of its convenience.

As shown in Figure 63, 23% of the respondents obtained their market information from the internet, with associations, and friends and families also being key information sources, at 18% and 16% respectively.

Consistent with the other countries, 90% of the respondents were receptive to receiving market information on their mobile devices.

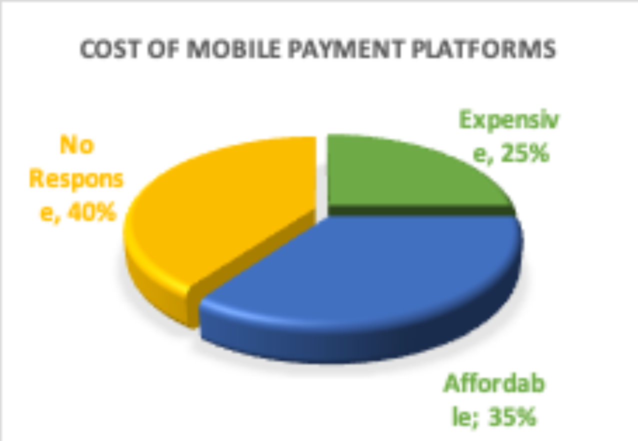

Figure 64: Cost of Mobile Payments Platforms- Mauritius

The study tried to find out how the respondents felt about their own participation in the digital space, to which 65% of the respondents were convinced that MSMEs were underrepresented in the digital space, and 20% thought that the number was about accurate. Majority (85%) also opined that the digital business field was one of the most important indicators of success in the 21st century economy.

As a business tool, 95% of respondents considered social media to be of importance. As illustrated in Figure 64, the responses on the affordability of mobile payment platforms were fairly mixed. In respect to value added services, the MSMEs expressed preference for bank statements, information on exchange rates and commodity prices. A majority of the respondents (65%) were generally optimistic about the prospects of digital payments improving their turnover, and 55% were hopeful about the positive impact of a regional payment system.

1.2 *STAKEHOLDER CONSULTATION MEETINGS*

1.2.1 *The Financial Services Sector*

Mauritius is home to a number of international banks, legal firms, corporate services, investment funds and private equity funds. Leveraging on its state-of-the-art infrastructure, innovative legal framework and ease of doing business regime, Mauritius offers an array of competitive financial products and services, including private banking, global business, insurance, limited partnerships, protected cell companies, trust and foundation, investment banking and global headquarter administration, amongst others.[94]

The Mauritian banking industry comprises 20 banks, out of which five (5) are local banks, nine (9) are foreign-owned subsidiaries, one (1) is a joint venture, four (4) are branches of foreign banks, and one (1) which is licensed as a private bank. All the banks are licensed by the Bank of Mauritius to carry out banking business locally and internationally. The banking industry is characterized by the wide range of services they provide. Besides traditional banking facilities, banks offer debit and credit card payment services, internet banking, and telephone banking facilities.[95]

1.2.2 *The Mauritius Chamber of Commerce & Industry (MCCI)*

The meeting revealed that advanced measures were being taken in an effort to drive digitization in the country. This was identified as being critical because ICT is central to the country's business process outsourcing sector.

1.2.2.1 *MSME Support*

The Chamber had been assisting the business community, including MSMEs for more than 25 years. They had created the "MCCI SME Marketplace," an online portal whereby MCCI used its network of expertise to support its MSME membership by providing them with products and services at exclusive rates. The market place provided MSMEs with linkages to finance, technology, risk management, coaching and training.

It was noted that Mauritius received over 1.5 million tourists annually. The MCCI also assisted MSMEs to market their products in such a way that tourists would be refunded Value Added Tax (VAT) and duty in case they bought locally produced items from registered shops. A portal was also launched to facilitate tax free shopping of local items.

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[94] https://edbmauritius.org

[95] http://www.mba.mu/banking_industry.php

1.2.2.2 *Domestic Resource Mobilization*

The revenue authority had already digitized tax collections and tax payments were being done online, whereby 90% of MSMEs in Mauritius were using the digital platform. The MCCI team termed the launch of the CBC DFI Project as a timely and welcome development. The Chamber was planning to invite ICT operators (who were involved in Business Process Outsourcing-BPO and Software Development) for MSME training, so as to sensitize them on the regional digital payment scheme, and offer them the opportunity to explore areas of possible collaboration.

1.2.3 *Ministry of Technology, Communication & Innovation (TCI)*

The objectives of the ministry include the following[96]:

- Formulate appropriate policies and provide the necessary legal framework for the development of ICT, and its optimal use across all sectors.
- Facilitate the provision of Government services electronically for the greater convenience of the public through the implementation of an E-Government program.
- Promote and facilitate the development of the ICT sector.
- Ensure that the ICT culture permeates all levels of the society to bridge the digital divide to the greatest extent possible.
- Promote the development of ICT enabled services, including e-business.
- Encourage the adoption of new technologies, and best practices in ICT.
- Promote capacity building in ICT.

It was established that the government of Mauritius was developing a portal aimed at taking digital services to the public. The strategy that was in place was to ensure the availability of end-to-end digital services in the country. In essence, all citizens were to be digitally included, with access to internet.

As part of digital inclusion activities, the government put in place digital awareness projects for primary, and secondary school students, as well as the general populace.

1.2.3.1 *MSME Support*

Over350 free WIFI hotspots for internet connectivity were available and any person could use them. It was further noted that Mauritius had a citizen support portal to engage citizens online on issues of education, employment, environment, and social protection.

Additionally, an online national skills development program was available to assist people in applying for government services.

1.2.3.2 *Digital Mauritius 2030*

The Ministry opined that the Digital Mauritius Vision 2030 played a crucial role in enabling the country foster and develop strategic targets to position itself as a leader in the field of technology both at regional and global levels. The Digital Mauritius vision 2030 serves as a blue print on e-government. At present, Mauritius is 100% covered by fiber cable.

1.2.3.3 *Regulation*

The following legislation is administered by the ministry:

- Computer Misuse and Cybercrime Act 2003
- Data Protection Act 2017
- Electronic Transactions Act 2000
- Information and Communication Technologies Act 2001
- Mauritius Research and Innovation Council Act 2019
- National Computer Board Act 1989
- Postal Services Act 2002

[96] http://mitci.govmu.org/English/AboutUs/Pages/Objectives-of-the-Ministry.aspx

1.2.4 *MCB Microfinance*

The MCB Microfinance Limited provides dedicated support to MSMEs, to enable them unleash their potential and implement their ideas.[97] MCB Microfinance was established in July 2016, and is part of the MCB group.

1.2.4.1 *MSME support*

The bank staff emphasized that MCB Microfinance Bank primarily caters to the MSME, and informal sector market segments. The bank ordinarily focuses on the self-employed individuals who may not have the collateral that is required by the banks. The Bank uses credit bureau ratings among other criteria to conduct a credit analysis with the aim of assessing the capacity of the MSMEs to repay their loans. Taking into consideration the fact that some MSMEs may either not have a bank account, or have a bank account which they do not use, the bank also analyzes the business on site. In this particular context, they peruse through the MSME's receipt books and invoices for payments, to try and reconstruct a cash flow statement.

1.2.4.2 *Graduation*

This refers to a bank standard in which all MSMEs who have been successful with the microfinance bank, are handed over to the commercial bank to access larger or structured loans that will help them to grow their business.

1.2.4.3 *Type of loans*

The MCB Microfinance team indicated that they mainly offered working capital loans. Their customer base was spread out across all sectors of the economy. It was established that in terms of distribution, 35% of MCB loans are given to the retail sector, 25% go to the manufacturing sector, 23% are for the service sector, 11% are for the transport sector, and five (5%) are in the agricultural sector.

The bank further indicated that the gender distribution of loans showed that 60% of the loans were taken by males and 40% by females. In terms of age, majority of the clients were under 35 years, implying that the bank was dealing with the youth. It should be noted that over 80% of the customers were in this category.

1.2.5 *ICT Authority (ICTA)*

The role of the Information and Communications Technology Authority (ICTA) is to promote affordable and adequate access to quality ICT services, through functional market-driven competition and regulatory principles in a trouble-free Networked Information and Knowledge Society. It is also responsible for protecting the consumers of telecommunication services.[98]

The Authority was happy with the idea of digital payments, and they highly recommended the use of public key infrastructure encryption technologies, in order to secure online transactions comprehensively. ICTA had already deployed such technology, and it indicated that its infrastructure could be scaled up to the regional level, because the authority followed the UN framework on digital signatures.

1.2.5.1 *MSME Support*

The authority acknowledged that consumer behavior had changed due to the revolution in e-commerce, and in response, it had developed a business facilitation portal. This portal which was created in collaboration with the Revenue Authority would be used to manage a wide spectrum of businesses. It was established that the portal was received well by the public, regulators, and institutions including Economic Development Board. It facilitated ease of doing business with the MSMEs.

1.2.5.2 *Acts and Regulation*

The following Acts among others are administered under the authority:

- The Data Protection Act 2017

[97] https://www.mcbmicrofinance.mu/en/about-us
[98] https://www.linkedin.com/feed/

- Computer Misuse and Cyber-Crime Act 2003
- The Information and Communication Technologies Act 2001 (as amended)
- The Electronic Transaction Act 2000 (as amended)

1.2.5.3 *ICT Regulations*

- Information and Communication Technologies (Quality of Service) Regulations 2014

- Electronic Transactions (Certification Authorities) Regulations 2010
- Information and Communication Technologies (Fraud Tracking Account Charge) Regulations 2010
- Data Protection Regulations 2009
- Information and Communication Technologies (Universal Service Fund) Regulations 2008 (as amended)

1.2.6 *EMTEL*

Emtel Ltd became the first mobile telephony operator in the southern hemisphere in May 1989 [99] .The company indicated that Emtel had over 650,000 mobile customers, out of whom a half (50%) were data users.

1.2.6.1 *MSME Support*

Emtel Ltd introduced an unlimited package with a bandwidth rate range from 20 Mbps – 30 Mbps for fixed amount of data. The data packages had been necessitated by the fact that, over 71% of Emtel's customers owned smart phones.

Despite the fact that Mauritius had a mobile money platform in place since 2015, its uptake had been low because it was not linked to banks. The study found that Mauritians were financially included, with over 90% having access to bank accounts. The ATM penetration per square meter is one of the highest in the world, which could have contributed to the low uptake of mobile money.

1.2.7 *Bank of Mauritius (BoM)*

The Bank of Mauritius (BoM) was established in September 1967 as the central bank of Mauritius. It was modelled on the Bank of England and was, in effect, set up with the assistance of senior officers from the Bank of England.[100] The BoM is responsible for ensuring the stability and soundness of the financial system of Mauritius. In addition, it performs the role of regulating credit and currency, in the best interest of the economic development of Mauritius.

The Financial Services Commission, Mauritius (the 'FSC') is the integrated regulator for the non-bank financial services sector, and global business. Established in 2001, the FSC operates under the Financial Services Act, 2007, and has other enabling legislations such as the Securities Act 2005, the Securities (Central Depository, Clearing and Settlement Act), the Insurance Act 2005, the Private Pension Schemes Act 2012, and the Captive Insurance Act 2015 to license. It also regulates, monitors and supervises the conduct of business activities in the relevant sectors. The statutory objectives of the FSC are set out under section 5 of the Financial Services Act 2007, while its functions are described in section 6 of the Financial Services Act 2007.

1.2.7.1 *COMESA Regional Payment and Settlement System (REPSS).*

It was highlighted that the BoM is the settlement bank for REPSS. Each Central Bank of a Member State is expected open an account with BoM, and therefore settle their balances there. Although initially settlement was done in US Dollars and Euros, the system is now flexible and allows the use of other currencies. The Bank was in agreement that Intra-African trade had in the past years, suffered from inefficient and unpredictable payment systems, which resulted in slow business operations. Most African payment systems are inefficient in terms of cost, time, convenience, adaptability and finality, which greatly affects the efficiency of businesses.

[99] https://www.emtel.com/about-us/company-profile
[100] https://www.bom.mu/about-the-bank/role-and-functions-bank

1.2.7.2 *Challenges*

The main challenge with REPSS is that, commercial banks were not using the system, while taking into account the fact that they preferred using other channels, because of the income they got from using those platforms. Procedurally, importers and exporters deal with their local commercial banks for trade documentation, and most of the time, the platform to be used is decided by the commercial banks.

The other challenge is that REPSS operates on Mauritius time, which may affect main land Africa transactions.

1.2.7.3 *Digital payments*

The BoM indicated that REPSS was structured in such a way that it integrates with all participants. The strategic focus moving forward could be to shift transactions towards the non-banking financial institutions, since banks were not utilizing the system fully.

1.2.8 *Princes Tuna (Mauritius) Limited*

The management team explained that MSMEs did not exist in their value chain. It was established that the company is one of the biggest processors of tuna in the region, standing at 450 tons/day. Its markets are EU, UK and USA, while it rarely sells the tuna to mainland Africa.

1.2.9 *Ministry of Financial Services and Good Governance*

The Ministry of Financial Services and Good Governance was a newly created Ministry. This was as a result of the Government of Mauritius considering the financial services sector, as a key component of the country's economic growth, thus requiring special attention. The Ministry has the responsibility of spearheading institutional reforms, and reinstating good governance practices, which are the fundamental principles at the core of the fight against irregularities.

1.2.9.1 *MSME Support*

The Ministry welcomed the development of a digital payments system for MSMEs in the region. The CBC team noted that banks in Mauritius had put in place special schemes, which were focused on supporting MSMEs.

Majority of MSMEs already had bank accounts, and almost 100% of all MSMEs that had accessed loans from commercial banks were financially included, because they all had banks accounts. However, the statistics may be different, if the MSMEs and informal traders who were accessing loans from microfinance Institutions are taken into consideration.

It was found that the NGOs normally come in with programs which support the development of MSMEs. Additionally, the Development Bank of Mauritius has initiatives aimed at smallholder farmers, as well as MSMEs in agriculture.

The Ministry recommended having a portal that trains MSMEs on basic bookkeeping and financial literacy. It noted that MSMEs make a major contribution to GDP and the creation of employment opportunities, and digitization would greatly assist.

Mauritius has a 90% rate of financial inclusion statistics, while bank account opening is easy. In order to benefit, the MSMEs need to register with SME Mauritius to get trading licenses, which facilitate the opening of accounts. Although tax return can be done on online, the same is not yet available on mobile devices.

1.2.9.2 *Challenges*

The harmonization of laws and policies is critical, and there need for COMESA to set up an arbitration board in case of disputes.

It was further recommended that payment intermediary services be used in the payment value chain, in order to ensure trust in the system.

1.2.10 *Standard Chartered Mauritius*

Standard chartered is represented in 15 African countries, and supports 22 other markets indirectly. It is present in six (6) Southern African countries, six (6) West African countries, and three (3) East African countries. The Mauritian chapter of the bank does have a specific product for the MSMEs, and therefore does not work with them directly. However, it is of the view that access to finance is not the biggest problem for MSMEs, but rather, information asymmetry.

An MSME will overstate their cash flows, when they want to apply for a loan at a bank, but under declare when it comes to tax returns. This results in most MSMEs getting loans that are larger than what the business can repay, leading to defaulting.

The Bank opined that the Central Bank of Mauritius had meetings with all commercial banks to encourage them to use REPSS. However, the Bank felt that REPSS had a challenge, because it only allows payments to those banks that have an account on REPSS, but when outside the system, one cannot pay or transact.

The bank emphasized o the importance of the platform working and having participants on both ends of the system, noting that no one would use the system if it was expensive. It was also highlighted that, transaction costs should be lower than the costs that were available on the market. The foreign exchange rate should also always be favorable on the platform than anywhere else in the market.

1.2.11 *Mauritius Port Authority (MPA)*

The visit was aimed at understanding the dynamics of an international harbor, and how MSMEs were involved. This visit was aimed at helping the CBC team gain better comprehension of the dynamics of an international harbor, as it pertains to transaction and customs procedures in the MSME trade with COMESA Member States.

The authority opined that it had been using a single maritime window system for its customers. Here, shipping agents effected their payments in favor of the MPA through bank transfers, with the aim of reducing the amount of transactions at its cash office. The MPA invoices could either be settled in MUR or USD terms. The Port (Fees) Regulations 2008 allows a credit period of 21 days for the settlement of invoices in MUR, while those settled in USD are allowed a credit period of 30 days.

1.2.12 *Mauritius Export Association (MEXA)*

The Mauritius Export Association (MEXA) indicated that banks lacked the impetus to support the export sector, and were instead favoring the industrial (manufacturing) sector. This had presented a huge challenge in the growth of the export sector. The export sector's contribution to GDP was seven (7%), whereas the manufacturing contributed 14%.

The Association suggested that non-bank operators should be licensed, in order to participate in REPSS through their respective central banks. This is central to the success of the MSMEs payment system.

1.2.13 *Economic Development Board (EDB)*

The overarching objective of the EDB is to ensure greater coherence and effectiveness in implementing policies. It also aims at drawing the vision for the economic development path, to be adopted to reach a high-income economy status, through sustainable and inclusive growth, while ensuring economic independence.

The EDB is responsible for driving research projects and leading initiatives with other stakeholders. The Board addresses issues such as: the mismatch in the education and labor system; the impact of an ageing population; the adoption of technology and innovation; infrastructural development; and the opening of the economy, amongst others.

The business facilitation agenda of the EDB will, on the other hand, ensure that projects are swiftly implemented by ensuring that timeframes are respected by licensing authorities. EDB will also ensure that no undue delay is caused due to unnecessary and overly burdensome administrative procedures. The national e-licensing platform is being implemented to curtail inefficiencies and provide more certainty to the business community.[101]

[101] https://www.edbmauritius.org/about-us/

1.2.13.1 *Africa Strategy*

The Board's management indicated that it had recently launched the Africa Strategy. The strategy was aimed at reinforcing economic collaboration with African States, in order to leverage on the geostrategic position of Mauritius, to drive investment into the continent. One of the key pillars of Africa Strategy, is to close the gaps in the areas of: connectivity; access to finance; and know how in Africa.

The Board indicated that:

- In terms of policy, Government was ready for the regional digital payments system.
- The CBC initiative would be a welcome development, in addition to their already vibrant banking system.
- Mauritius was already advanced in technological aspects.
- An awareness program was needed, to facilitate the adoption of the initiative by MSMEs.

1.3 *PAYMENT INFRASTRUCTURE LANDSCAPE*

The Central Bank is the overseer of the payment system, entailing payment system oversight, and settlement. The payment system in Mauritius consists of two main components:

Mauritius Automated Clearing and Settlement System	• Allows funds to be transferred between two counterparties, immediately and without risk. • RTGS for interbank real time funds transfer • Clearing transactions settled on a net basis. • RTGS co-exists with deferred net settlements of obligations arising from the exchange of low value-high volume payment types
Port Louis Automated Clearing House (PLACH)	• Only clearing house in Mauritius. **The Bulk Clearing System** - Facility for presenting interbank retail payments in batches, to one another, at specific times. Payment instructions in each batch are netted and participants' net positions are settled on MACSS. **Cheque Truncation System -** enables electronic clearing of cheques through the cheque MICR data and scanned cheque images **Electronic Fund Transfers -** EFTs are presented through batch files which are cleared four times a day through the bulk clearing system.
Mauritius Central Automated Switch (MauCAS)	• Central payment switch • Enables banks and non-bank operators to provide transformative payment and value-added services through cards, mobile phones and other innovative channels.
SIRESS and REPSS	• Regional payment platforms • Minimal activity on both, with an average number of transactions of 150 a month on SIRESS

Table 3: Mauritius Automated Clearing and Settlement System

1.3.1 *Market Products*

Until recently when the National Payment Systems Act 2018 was amended, the participation on mobile money platforms, was solely by banks or financial institutions that were regulated by the BOM.

There are however bank partnerships and bank led mobile money platforms as follows:

my.t mobile	JuiceByMCB	Emtel Cash
• Mobile Commerce service with the functionality to: o Send and receive money (P2P) o Make Payments using My.t mobile money (P2B) o Bank transactions	• Mobile banking app	• MNO-led mobile money platform • Designed to work independently from the phone without a bank account. • Still to be licensed as a payment service provider

1.3.2 *Pricing Structure for digital payments*

With My.t Mobile Money, no additional costs are incurred for sending credit by mobile money, apart from the cost of SMS (normal price of SMS).

There are no charges associated with myjuice by MCB app, but all other banking charges apply.

Note: stakeholders in Mauritius indicated that the platforms were not interoperable.

1.4 *POLICY AND REGULATORY FRAMEWORK*

The power to license, supervise, and regulate financial service providers in Mauritius lies across different departments and ministries. These are summarized below.

<table>
<tr><th colspan="3">Policy and Regulatory</th></tr>
<tr><th>Policy/Regulation/Directive</th><th colspan="2">Key Issues</th></tr>
<tr><td rowspan="2">Financial Services Act 2007 (31 Dec 2018)</td><td colspan="2">• To amend and consolidate the law regulating financial services, other than banking, and global business and to provide for related matters.</td></tr>
<tr><td colspan="2">• Licensing of Payment Intermediary Services</td></tr>
<tr><td>Securities (Central Depository, Clearing and Settlement) Act 1996</td><td colspan="2">• Provide for the establishment and regulation of a central depository, clearing and settlement service in order to facilitate dealings in securities</td></tr>
<tr><td>The National Payment Systems Act 2018</td><td colspan="2">• Provides for the regulation, overseeing and supervision of the national payment systems.
• Designates the BoM as the authority for the national payment system.
• Licensing of payment services providers</td></tr>
<tr><td>Electronic Transaction Act 2000</td><td colspan="2">• Provide for an appropriate legal framework to facilitate electronic transactions and communications by regulating electronic records and electronic signatures and the security thereof.</td></tr>
<tr><td>Data Protection Act 2017</td><td colspan="2">• Provide for the protection of the privacy rights of individuals in view of the developments in the techniques used to capture, transmit, manipulate, record or store data relating to individuals</td></tr>
<tr><td>Computer Misuse and Cybercrime Act 2003</td><td colspan="2">• Provide for repression of criminal activities perpetrated through computer systems</td></tr>
<tr><td rowspan="6">The Financial Intelligence and Anti-Money Laundering Act 2002 (FIAMLA)</td><td colspan="2">• To provide for the establishment and management of a Financial Intelligence Unit and a Review Committee to supervise its activities:</td></tr>
<tr><td>1</td><td>to provide for the offences of money laundering;</td></tr>
<tr><td>2</td><td>to provide for the reporting of suspicious transactions;</td></tr>
<tr><td>3</td><td>to provide for the exchange of information in relation to money laundering;</td></tr>
<tr><td>4</td><td>to provide for mutual assistance with overseas bodies in relation to money laundering;</td></tr>
<tr><td colspan="2">FSC will request that FIU need to be consulted on the matter for any Regulation to be added, if required.</td></tr>
</table>

1.4.1 Interoperability

The management of the BoM indicated that, all retail payments were driven by private initiatives, which were interoperable. In addition to ensuring interoperability between banks, BoM has an ambitious program aimed at connecting telecom operators, transport, and government and financial institutions. In order to encourage electronic payments in the country, the bank is focused on achieving sectorial convergence, and is prioritizing this.[102] Mobile Money and related schemes offer tremendous opportunities for social integration, by enabling customers to have access to lower cost payment alternatives. At the same time, it represents an avenue for commercial growth, as this sector's potential is still untapped in Mauritius[103].

1.5 *PICTORIAL FOCUS*

1.6

MSME Training

CBC's Board Chairman, CBC's CEO, MCCI's Secretary General and CBC's Digital Services Manager

[102] https://www.m2mgroup.com/en/bom
[103] https://www.bom.mu/payment-systems/national-payment-switch

APPENDIX 10: MALAWI

1 MACRO-ECONOMIC OVERVIEW

Malawi's economic position relies on the agricultural sector, which employs 84.6% of the the country's population. Exports are dominated by tobacco, tea, edible fruits, cotton, coffee and sugar. The population is estimated at 18 million, with a nominal GDP per capita of US$367[104]. Malawi has experienced strong growth in the uptake and usage of DFS. The United Nations Capital Development Fund (UNCDF) observed that while this growth is still lower than Uganda and Tanzania, it is comparable to the levels of growth being experienced in Zambia (cite).

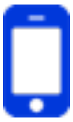		
Mobile penetration at 23% Internet penetration at 13.8% Female with internet access at 5.5% (2017)	Formal bank account at 29% Informal sector as a percentage of GDP at 50% (2015)	Median age of 17.4

Table 39: Key Statistics - Malawi

Malawi launched the first mobile money pilot project in 2012. Statistics show that the number of adults using DFS leapfrogged from 1,000 to 2.3 million active users (90 days) as of June 2018. Besides MACRA's implementation of the Universal Service Fund, the country has also recently embarked on the World Bank funded Digital Malawi Project2, which is aimed at extending, and improving access to ICT infrastructure, for the public, private, MSME and smallholder farmer sectors. Consequently, over 9.1 million adult now have a digital ID, which provides the country with a strong base to further accelerate attainment of financial inclusion, through innovative mechanisms.

1.1 *OBSERVATIONS FROM MSMES IN MALAWI*

1.1.1 *The MSME Profile*

The profile of the MSME owners was analyzed based on age, level of education, gender, location and the reason for starting the business. This is useful in understanding entrepreneurial densities across these classes. A total of 52 MSME business owners participated in this study in Malawi.

1.1.2 *Demographic Profile*

Findings showed that a majority of the respondents (90%) were female, and 69% were youth, i.e. under the age of 34. With regard to level of education, 94% of respondents were educated up to at least secondary level.

According to the study 88% of the respondents indicated that their businesses were sole proprietorships, with the dominant sectors being cross-border traders (35%), retail and wholesale (29%), and agriculture (23%), with the balance being split among construction, tourism and mining. However, the level of informal MSMEs was very high, with over 70% of the respondents indicating that they were not registered for tax purposes. The majority of respondents' businesses (54%) were domiciled in the urban areas, although variations were observed with sectoral distribution. For instance, the dominant sector in the urban areas was cross-border trade (43%) and retail and wholesale (37%), while in rural areas the dominant sectors were agriculture (36%) and cross -border (23%)
With regard to the reason for going into business, at least 71% of the respondents indicated that they did it in pursuit of entrepreneurial opportunities, while some of the female respondents cited being divorced and the need to feed families.

[104] World Economic Outlook Database, April 2019

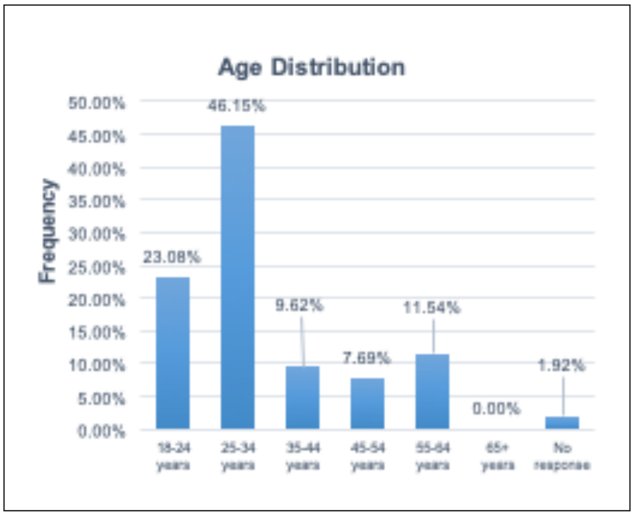

Figure 66: Age Distribution - Malawi

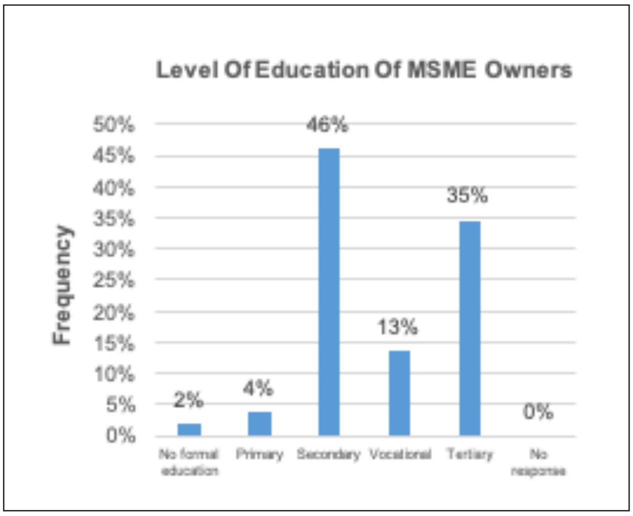

Figure 67: Level of Education of MSME Owners- Malawi

1.1.3 *Trade Facilitation and Ecommerce*

Figure 68 shows that, about 41% of the respondents started their business using money from friends and family, and 22% from savings. Less than 10% of the respondents were able to get external finances, which reflects scarcity of external funding and/or failure to meet the funding requirements of external funding providers. This was much more pronounced the youth, i.e under the age of 34.

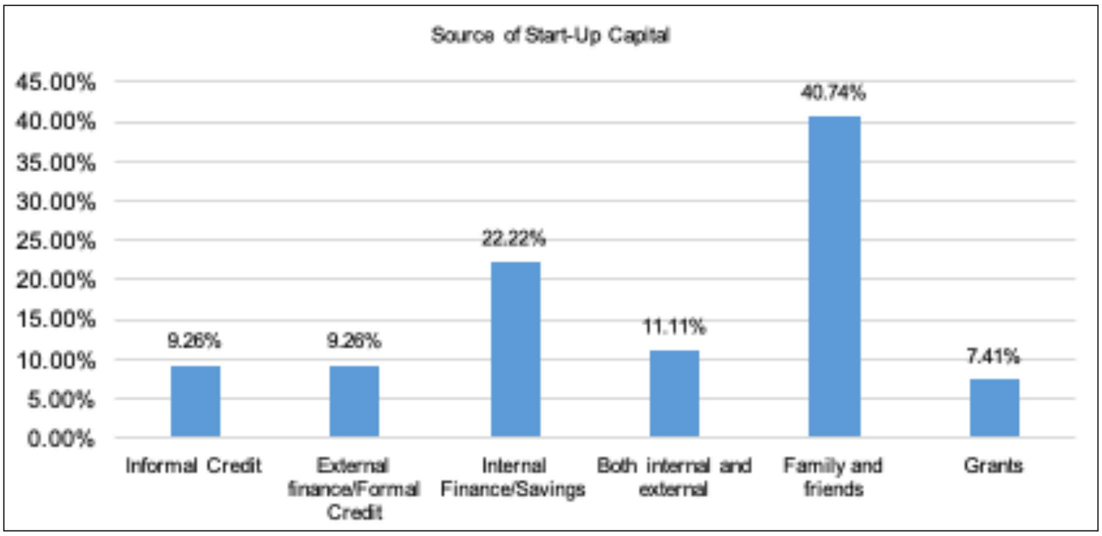

Figure 68: Sources of Start-Up Capital- Malawi

In this study, access to a transaction account was considered a starting point for DFI. Figure 69 shows that, a majority of the respondents (67%) had transacting accounts, which was consistent across gender types.

Similarly, the probability of having a transacting account was higher in MSMEs that had been in existence for longer than three (3), in comparison to the new entrants into entrepreneurship. On the other hand, the younger respondents were more likely to have personal accounts and mobile money accounts.

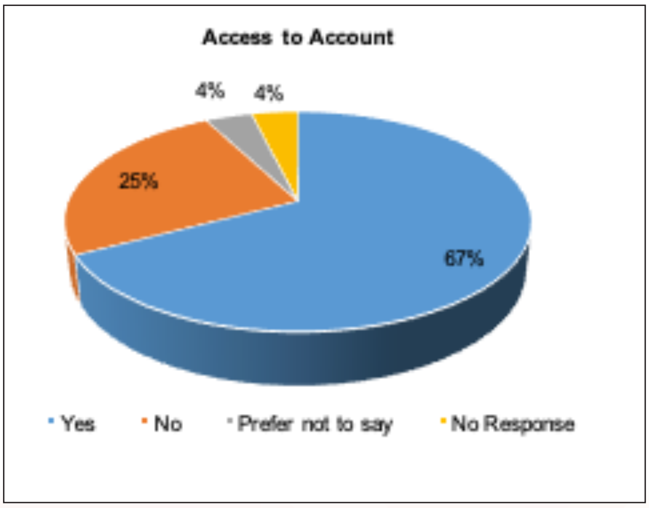

Figure 69: Access to Transaction Accounts- Malawi

In terms of satisfaction with their transacting accounts, 54% of respondents indicated that they were at least satisfied with the services they were getting from their business bank accounts. Additionally, cash was the preferred method of payment with 42% of the respondents indicating their preference for cash payments. This was followed by mobile money (37%), and bank transfers (21%) as the preferred payment methods.

In order to access financial services, 42% of the respondents travelled less than a kilometer to be served, 27% between 1 - 5kms to get financial services, 13% from 5-10 kilometers, while four (4%) travelled over 10 kilometers, and 12% did not know.

In terms of the mobile technology, 79% of the respondents were using the smartphones, and 19% were using feature phones, which is reflective of the opportunity to use mobile applications for information sharing. With respect to local trade, 48% of the respondents preferred that they should be paid immediately after delivery of goods and services. Similarly, 42% of the respondents indicated that if they are to engage in international trade, they expected to be paid immediately after delivery, while 21% preferred being paid before delivery.

1.1.4 *Market Access and Penetration*

In analyzing their markets, 10% of the respondents indicated that they were export oriented, 63% traded within their municipality of operations, 10% went further into the other regions, while 17% traded countrywide. Consequently, 69% of the respondents were members of trade associations, and 31% were stand alone and not affiliated to any association.

All the respondents who had businesses that were over three (3) years of age were affiliated to trade associations, while less than half of the businesses that were aged under three (3) years were affiliated to association. Among the respondents who were affiliated to trade associations, 71% indicated that they used the associations to access both local and foreign markets. On the contrary, 21% of the respondents did not consider the associations useful, while a significant number of respondents, 35%, still made use of unregistered middlemen to access markets.

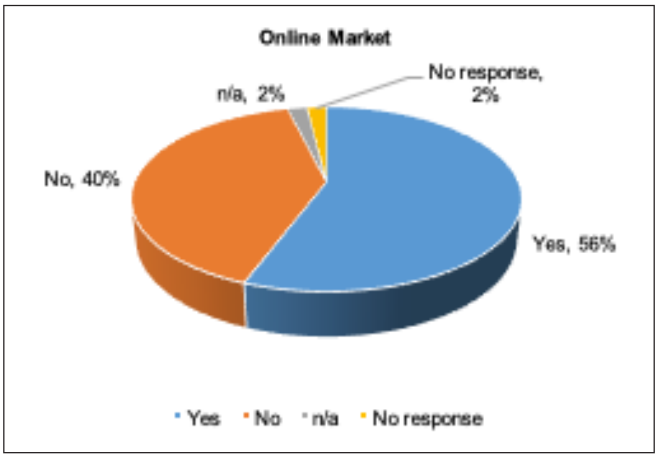

Figure 70: Online Market Presence- Malawi

As shown in figure 70, 56% of the respondents indicated that their products could be ordered online, and 40% indicated that their products could be ordered online, while two (2%) thought the question was not applicable to their business.

In terms of international trade, the majority of respondents, 58%, did not use digital platforms to engage in cross-border trade, a factor that was reflective of the inherent opportunity for a cross-border trade solution. Similarly, while all respondents indicated that they procure locally, at least 62% would be willing to both either order for and pay digitally, or sell and receive payments digitally (60%).

Mobile payments were the preferred payment solution for cross-border payments (60%), partly due to the perceived affordability (15%).

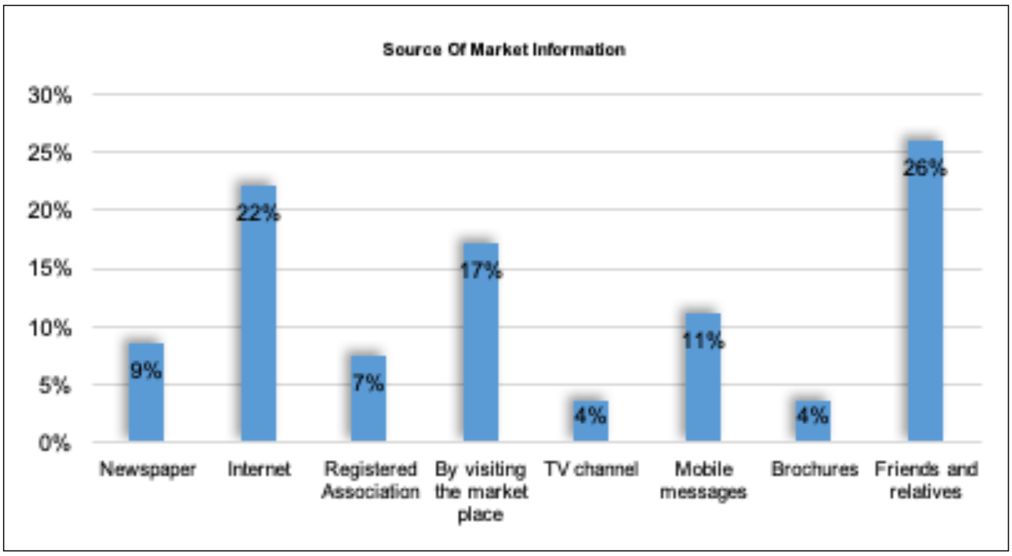

Figure 71: Sources of Market Information - Malawi

As shown in figure 71, 26% of the respondents got their market information from friends and relatives, with the internet and the physical marketplace constituting 22% and 17% of respondents, respectively.

There is need to build the capacity of MSMEs on the use of digital tools. This is because: 36% of the respondents indicated that they needed basic training courses so that they could appreciate the smartphone and digital platforms; 14% reported that they were above basic in terms of training needs but below advanced, while 50% said, they would want an advanced training course on ways of improving their business through the digital platforms. Regarding their willingness to expand their digital skills, 83% MSMEs were enthusiastic about the initiative.

The study examined how the MSMEs felt about participating in the digital space, and out of the total number of respondents, 63% were convinced that MSMEs were underrepresented in the digital space, 10% thought the number was alright, while 15% did not know. A majority of the MSMEs (79%) also opined that the digital business field was one of the most important indicators of success, in the 21st century economy.

In trying to establish how social media was viewed as a business tool, 87% of the MSMEs considered social media to be important for business, six (6%) were of the view that it was not important, and four (4%) did not know.

The cost of mobile payments can either encourage of discourage MSMEs from using them. Thirty-eight (38%) of the MSMEs considered mobile payments in business to be expensive, and 56% felt that they were affordable.

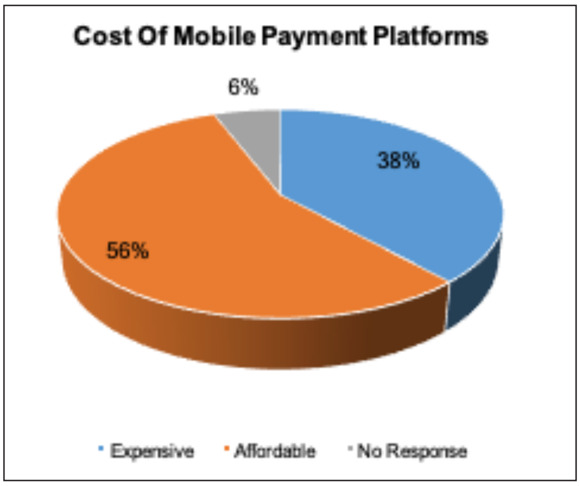

Figure 72: Cost of Mobile Payments Platforms - Malawi

With regard to some of the important VAS that MSMEs would want to see on their mobile platforms, 31% of the respondents cited bank statements, 20% were for commodity price information, 25% wanted information on currency exchange rates, and 12% each for those who wanted product focus demands, and Credit worthiness statements. On the impact of digital payments on turnover, 83% of the MSMEs believed that digital payment systems had the potential to improve their annual turnover, while 17% did not know. In the same vein, 75% of MSMEs were convinced that regional payment systems for cross-border trading would positively impact their business, and 25% was split between not knowing and not responding.

2 STAKEHOLDER CONSULTATION MEETINGS

2.1 *The Financial services sector*

The Malawian financial system consists of banks, discount houses, leasing companies, insurance companies, Development Finance Institutions (DFIs), a growing-microfinance industry, and a nascent capital market. Malawi's financial system offers a variety of conventional financial services, which are concentrated on the short-term end of the yield curve, but with an increasing focus on down-market products.

2.2 *Ministry of Finance, Economic Planning and Development*

The Ministry of Finance, Economic Planning and Development has the mandate to formulate economic and fiscal policies. These policies seek to manage government financial and material resources, and provide strategic guidance on economic and development planning, based on accurate and reliable statistics for the attainment of socio-economic development[105].

2.2.1 Payments Roadmap

The Government of Malawi Payments Roadmap lays out a tentative short-term, medium-term and long-term plan for digitizing government payments in Malawi. The roadmap further aims at improving access to DFS), which are accessible, affordable, reliable and secure. It also creates a conducive policy, legal and regulatory environment for DFSs. This roadmap is aligned with the broader Government of Malawi development strategy, which is aimed at achieving financial inclusion and supporting the creation of a financial sector that stimulates sustainable economic growth.

2.2.2 Partnerships

The government is working with FinMark trust to study cross-border payments around Malawi. A number of companies were already in the cross-border remittances space including Mukuru, Zoona[106], and Hello Paisa, among others. The government is in full support of the deployment of PoS machines at all business centers.

2.2.3 MSME Support

The main focus of the Ministry of Finance is to ensure the country's economic development through support for the growth of MSMEs. The government is committed to the implementation of effective support programs for the development of MSMEs, informal traders and smallholder farmers. It is calling for the support of donors and cooperating partners to provide financial and technical assistance, in the implementation of policies and strategies. This will maximize the potential of MSMEs, to contribute to economic development.

The Government is committed at policy level to review the existing schemes, with the intention of improving MSMEs access to inputs and raw materials. In liaison with other relevant and line ministries under which the MSMEs fall, the government is encouraging sub-contract and contract farming arrangements between MSMEs and smallholder farmers on one hand, and large enterprises on the other hand.

It is the government's intention to promote the spirit of buying locally, because this will in turn spur excess production, some of which can be exported. Procurement policies and practices are also being looked at, so that deliberate effort is made to include MSMEs. Additionally, the Government is looking at policies that can promote the establishment of trading houses to provide market linkages for MSMEs. The government is also promoting the establishment of Export Production Villages, with the aim of promoting smallholder farmer businesses, as well as export oriented MSMEs.

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[105] https://www.finance.gov.mw/#

[106] Mukuru has acquired Zoona Malawi's operational assets along with the technology systems that support its operations in Malawi. (https://www.mukuru.com/mukuru-acquires-zoona-malawi/)

2.2.4 *Information Gap and Access to finance*

The information gap will be closed by ensuring that MSMEs are aware of regulations and procedures governing trade agreements, between Malawi and its partners. The Government is also encouraging the establishment of pre- and post-shipment financing schemes, which should be availed to smallholder farmers and MSMEs in export business.

2.2.5 *Domestic resource Mobilization*

The Government believes that DFI for MSMEs, small holder famers and the BoP value chain has the potential widening the tax base, thus improving revenue collections, and enhancing domestic resource mobilization. This will lead to improved GDP.

In addition to the foregoing, the Government has already digitized its payments and receipts system. All government payments are now done in digital format, implying that all MSMEs contracted by government must have an account because government does not pay using cash. Government fees and other payments are also being paid for through the cellphone, using either the app or USSD. The ministry officials indicated that village heads were now happy upon using mobile money, because they were receiving all their dues.

For security reasons, the government also believes that digitization will help counter, manage, and combat terrorist financing.

2.3 *Ministry of ICT*

Information, Communication and Technology (ICT)has the potential of transforming businesses and the government by driving entrepreneurship, innovation, economic growth and breaking down barriers related to distance and cost in the delivery of services. It is in recognition of this, that the Government of Malawi is implementing a new project in the realm of ICT known as the Digital Malawi Project."[107]

They ministry has embarked on this project to ensure that there is last mile connectivity, in terms of digital platforms. The Ministry has installed and commissioned a national fiber backbone, which connects to all districts in Malawi. In this project, the ministry is considering private public partnerships, to the extent that Airtel and TNM are already in partnership. The Government is also building towers in some areas, and providing power to such facilities so that MNOs can easily mount their infrastructure.

2.3.1 *Digital Malawi*

Digital Malawi is aimed at extending and improving access to ICT infrastructure, for the public, private, MSME and smallholder farmer sectors. The Project aims to improve: ICT governance; access to government services; market linkages; to close information gap; and facilitate the provision of e-services, thereby enhancing public service delivery. The Digital Malawi Project has been divided into four components as outlined below:

2.3.1.1 *Digital Ecosystems*

The digital ecosystem is aimed at creating a conducive environment, through the conception of new ICT policies, legislation, regulations, regulatory reforms, regulatory capacity building, institutional development, improved ICT skills development and innovation, especially among the nation's women and youth, who are the major players in the MSME sector.

Under digital ecosystems, the project will support Malawi Communications Regulatory Authority (MACRA) in developing and maintaining appropriate regulatory framework, including improved economic regulation, data collection, analysis tools, and organizational restructuring, which is required for the effective implementation of the mandates that are stipulated in the Communications and Electronic Transactions Acts of 2016.

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[107] http://www.pppc.mw/digital-malawi

Improved regulation will in turn translate to improved consumer experiences in the ICT industry. On the other hand, improved consumer experience translates to improved economic activity. It is envisaged that the initiatives under this component, will result in reduced broadband prices, high quality and improved availability of government ICT services. The component will also address the establishment of information society systems such as the Computer Emergency Response Team (CERT), digital signatures, economic regulation and Universal Services Fund.

2.3.1.2 *Digital connectivity (infrastructure)*

This is aimed at increasing access, including of the last mile connectivity, where majority of MSMEs and smallholder farmers are based. This is done by addressing the connectivity gaps for government, education, MSMEs as well as private consumers. All priority public institutions throughout the country, such as government offices, hospitals and education institutions will be connected. The component will also support the deployment and scaling up of innovative broadband access networks, to underserved areas, especially in the rural areas.

It was noted that the government will allow all mobile money services providers to integrate with the government system through Application Programming Interfaces (API). This will assist several government employees, including teachers, and other civil servants in rural Malawi where bank penetration is low. The government employees will be able to access their salaries through mobile money either directly or indirectly. Currently, teachers their salaries in terms of cash, and the teachers incur higher costs because they have to travel to their banks to withdrawal the money.

2.3.1.3 *Digital platforms and services (e-Government)*

Digital platforms and e-Government services are aimed at generating opportunities, to transform public service delivery in Malawi through digital technologies. This will focus on developing a Shared Digital Public Service Platform. Its aim is to establish a solid foundation upon which future digital services and applications will be established. With this platform in place, all tenders will be submitted online, and tender approvals will also be done online, thereby reducing corrupt practices. The MSMEs will also be registered on this platform under a special category, and be prioritized and allowed to compete in some tenders in which they are competent and qualify. Registration can be done by MSMEs using their mobile phones.

The digital platform and services will provide an opportunity to the public, to access various services through mobile phones and online platforms. Such services could include processing of: passports (a plus for cross-border traders); driver's license; business registration; birth certificates and payment of utilities and school fees, among others.

2.3.1.4 *Project management*

The fourth component, project management, covers operational essentials of implementing the project.

2.4 *World Bank Digital Moonshot for Africa – Malawi*

It was noted that the COMESA project is in line with and will complement the existing initiatives that the Government of Malawi is working on.

The Digital Economy for Africa Moonshot (DE4A) is part of the World Bank Group's support for the African Union's Digital Moonshot for Africa, which aims at ensuring that all individuals in Africa, businesses and governments are digitally enabled by 2030. The five foundations of the digital economy which are priority areas in Malawi include:

2.4.1 *Digital Infrastructure*

- Universal internet network coverage
- Affordable internet for all at less than two (2%) gross national income per capita

2.4.2 *Digital Skills*

- All 15-years-old students with basic digital skills competences
- At least 10,000 graduates in advanced digital skills annually (global target for Africa)

2.4.3 *Digital Platforms*

- Doubling of online services index rating for all governments
- All individuals are able to prove their identity digitally
- At least a half of the population uses the internet regularly to access government or commercial services

2.4.4 *Digital Financial Services*

- Universal access to DFSs
- Africa-wide payments infrastructure platforms in place

2.4.5 *Digital Entrepreneurship*

- Tripling the number of new digitally enabled business created annually
- Financing for venture capital to reach 25% of GDP

2.5 *National Smallholder Farmers Association of Malawi (NASFAM)*

The National Smallholder Farmers' Association of Malawi (NASFAM) is the largest membership organization that is owned by smallholder farmers in Malawi. It is founded on the principles of collective action, and is democratically governed by its members.

The association was of the view that in as much as digital platforms were appreciated, there was need to conduct intensive training for smallholder farmers on financial literacy, to enable them understand the benefits of DFI. The association pointed out that smallholder farmers were small value farmers, who tend to perceive the use of digital platforms as being expensive. Thus, the association uses the cash in transit option from the bank to the farmers to pay them for the produce they supply. Cash is regarded as being convenient in the smallholder value chain.

2.5.1 *Risks associated with cash*

Various risks are associated with cash, both at individual farmer as well as association level. These include cash heist, robberies, and fraud. The cost associated with transacting in cash is also considered to be high.

2.5.2 *Market linkages*

The Malawi rice which is produced by smallholder farmers, is aggregated by NASFAM and exported to countries, such as Scotland and Zimbabwe. The Association also exports groundnuts to the United Kingdom and soya beans to Botswana. In terms of cross-border trade, the association has outlets in all border towns where they sell the farmer's produce. The target market in those areas are cross-border traders who visit Malawi for trade.

2.5.3 *Payments challenges*

In terms of cash accessibility, the association recommended that agents should always be in close proximity to the farmers. The distance between the farmers and most agents was said to be too wide. In view of this development, cashless systems were found to be the most ideal for smallholder farmers. Nevertheless, cash still remains the preferred mode of payment, and there is therefore need for training to prepare the farmers for digital payments.

2.5.4 *Composition*

According to NASFAM, although membership to the Association is open to both men and women, only 45%[108] of the members are women, and more females were being encouraged to participate. NASFAM further stated that there were additional new initiatives that were aimed at enhancing women participation. As opposed to the common practice of bringing the women to the market, the Association had started working on the concept of bringing the market to the women.

2.6 *Auction Holdings Commodities Exchange (AHCX)*

The Auction Holdings Commodities Exchange (AHCX) is a marketplace where buyers and sellers can transact trade commodities with an assurance on quality, delivery and payment. The Exchange is committed to ensuring that the market is has a modern market institution that brings in the much needed integrity, by providing a guaranteed mechanism for quality, quantity and payments. It further ensures that the market is efficient, by introducing standardized contracts and trading systems.

The Exchange is a fully electronic market, which brings in transparency and empowers the farmers by disseminating real time market information to all market players. At a later stage, it will start providing the market with options for risk management, by offering future trading expectations.

The biggest challenge with the above program is that it is not interactive. Communication is one-way, while the information is outdated, and farmers do not have any feedback mechanism. As one way of encouraging and facilitating usage of these digital platforms by farmers, NASFAM is negotiating with the MNOs for bundles, which will allow farmers to access important farming and market information.

2.7 *Bayer*

It was noted that all payments to and from Bayer were being done electronically online. Bayer does not make payments using cash. This implies that any business dealing with Bayer, despite the size, is normally paid or pays electronically. The company does not accept mobile money payments yet, but it is working on the acceptance of PoS transactions.

Further downstream, their agro-dealers were transacting through mobile money and PoS transactions. However, the majority were still receiving cash. In the upstream, they were only contracting with larger firms, who in turn could have been contracting with smaller farmers. The information gathered so far shows that, transactions at this level were only done on cash basis.

It was established that Bayer did not have any backward integrations with small holder farmers, but had forward integrations with MSMEs in the form of agents and agro-dealers.

2.8 *Malawi Communications Regulatory Authority (MACRA)*

The Authority was established to regulate the country's communications sector. MACRA draws its mandate from the Communications Act of 2016 to regulate and monitor the provision of communications services and ensure that, as far as it is practicable, reliable and affordable communications services are provided throughout Malawi.[109]

The national ICT policy 2013 gives direction on ICT development in Malawi. The Policy aims at guiding:

- Investments in priority ICT areas.
- The provision of ICT services in rural areas and to the vulnerable groups.
- The public sector in planning for the national development and utilization of ICT.

MACRA is mainly concerned with the quality of service in communication technologies, as well as digital finance.

[108] NASFAM website has 36%
[109] https://www.macra.org.mw/

2.8.1 *Universal Service Fund*

The Universal Service Fund emanates from the licenses and levies managed by MACRA. The Fund is the Authority's main regulatory tool, for promoting universal access to ICT services in rural and underserved areas in the country.

The objective of the Universal Service Fund is to promote universal access to communications services, which comprise of broadcasting, postal and telecommunications. It will fund the deployment of communications infrastructure, and service provision in rural and underserved areas, where licensees may not be willing to invest due to lack of economic viability. The Fund will target areas where the provision and access to services would be prohibitive due to cost. The Fund will enhance the reach of broadcasting, postal and telecommunications services to the underserved areas, address the provision and access of communication services in rural and underserved areas.[110]

2.8.2 *Digital Crimes*

The Authority carries out regular awareness campaigns on financial fraud, especially the ones occurring on the mobile money platforms. The communications regulator regularly meets with telecommunications companies, and all the other stakeholders to address upcoming issues affecting the ICT Industry such as cybercrimes.

Similarly, the mandatory SIM Card registration which was enforced by MACRA in 2018, through Part XI of the Communications Act, 2016, has also helped in identifying the perpetrators of such mobile money fraud, who are easily traced.

2.8.3 *Rural inclusion*

Awarding of spectrum is based on Administrative Incentive Pricing (AIP), whereby the frequencies in rural areas were cheaper than those in the cities. This was aimed at incentivizing MNOs who did not see a business case in such rural areas. MACRA assigns frequencies based on geographical areas, which are categorized as urban, semi-urban and rural. Some MNOs have introduced location-based charging, where calls from rural areas are ordinarily cheaper than calls originating from urban areas.

Additionally, MACRA ensured that MNOs were offering quality services to customers, as the communications regulator carried out annual quality of service surveys and audits. MACRA was also working towards ensuring that all areas were covered with high speed data infrastructure using 4G network.

2.9 *FINCA*

The FINCA Malawi was the first institution to be issued with microfinance bank license in the country. Nevertheless, the license does not allow the bank to deal in foreign currency, nor to open current accounts. Their target market is the bottom of financial pyramid markets including MSMEs. FINCA has 23 branches in Malawi, out of which 17 are deposit taking and seven (7) are credit only branches. It also has 65 agents strewn across the country.

2.9.1 *Products and Services*

The microfinance bank issue loans to MSMEs, a majority of which are disbursed through the group loan product. Group loans start from a minimum of K20, 000 up to K1 million. The group membership ranges from five (5) to 20 members. Suffice to mention that 95% of the loan are taken by groups.

Before the loans are disbursed, group members are taken through a financial literacy training. The bank said that this helps to significantly reduce the default rates. The bank also gives out individual and MSME loans. Most MSME loans are secured, and are mainly given to members who would have graduated from the groups.

The bank has mobile banking services, which can be accessed through USSD and FINCA app. These two platforms allow for self-registration, and works with all networks. There is no charge for using the app or USSD.

[110] https://www.macra.org.mw/

Loans can be applied for through the mobile platforms. A mobile savings account can be opened on TNM network, and customers can access the Mpamba loan digitally. Interest rates are six (6%) per annum. FINCA is also in the process of joining the national switch which will allow its customers to use FINCA cards both within and outside the country.

2.10 Reserve Bank of Malawi

The Central bank has a unit called The Financial Sector Regulation department, which T was established within the Supervisory Function of the Reserve Bank of Malawi. The creation of the department followed the policy position, which was taken by the Registrar of Financial Institutions to separate regulation of financial institutions from the supervision of the same, in a bid to achieve independence and efficiency in the regulatory process.

2.10.1 *Regulation*

The bank administers the following Regulations; bank regulation, capital markets & microfinance regulation, financial cooperatives regulation, regulations for microfinance institutions, securities market regulation, consumer protection & financial literacy, and pensions and insurance regulation

The Department has the following key result areas, which will help it achieve its mission: entry control; regulation development; enforcement; market conduct supervision; financial education; and exit administration.

2.10.2 *Consumer protection*

In order to protect the customers, the bank has issued directives on mobile money, regarding the display of transaction fees at all agent shops. Transaction fees on all platforms are not regulated, as the bank tries to allow competition to determine the cost of transacting. However, the bank has made it clear the institutions will not be allowed to surcharge on all PoS, ATM and merchant transactions.

2.10.3 *Challenges*

Redress mechanism on local transactions are not clear, and it takes time for transactions to be reversed.

2.11 *NITEL*

The National Integrated Technologies Limited (NITEL) is an integrated technologies business, which was previously known as Malswitch. Its core activities are in the following areas: electronic payment; information technology infrastructure; and data communication services.[111] Financial technology (fintech services) focusing on electronic payment;

    - Interface with banks, MNO, mobile money providers and internet banking.
    - They are currently developing mobile wallet.
- Enterprise services focusing on infrastructure, hosting and support services;
    - Providing infrastructure as well as services to the whole of Malawi
    - Applications development;
    - Data communication services.
    - Media

2.12 *Airtel Malawi*

Airtel Malawi acknowledged that mobile money is at the center of DFI in Malawi, and the world over. Airtel money was launched in 2012 and has been growing steadily, with significant growth recorded in recent years.

Airtel Malawi had early stage challenges of trying to convince businesses, MSMEs and sole traders to become agents. To date, Airtel money has 22,000 active agents[112], and a total of 46, 000 agents in their books. The geographical split of the agents is on a 60:40 basis, in favor of urban areas. Airtel money has an exclusive

[111] http://nitel.mw/

[112] Active 30

channel strategy that uses the franchise model. To date, the company has a total of 400 airtel money branches, and 3, 000 kiosks across Malawi.

The success of mobile money depends on distribution. The Malawi model for customer services is that in urban areas, a customer should not move for more than 100 meters to find an agent. In rural areas, the model states that 500 meters should be the highest distance a customer should travel to find an agent. The SADC Banker's association is also working with Airtel Money Malawi, for a pilot low value remittance initiative, which was to be formally launched in 2020.

2.12.1 *Products and services*

- Person to Person (P2P)
- Cash-In Cash-Out
- Bill payments
- International Money Transfer – they are currently sending to Airtel money customers only, although their customers can receive money from anyone who is integrated to their platform.

2.12.2 *MSME Support*

Customers can access micro and nano loans, whereby the minimum amount is K1, 500 and the maximum isK60, 000. These are offered in partnership with a bank, and the algorithm is supported by a company called comviva. Banks are however not yet accepting mobile money statements for credit analysis in the event that a customer needs a larger loan.

2.12.3 *Regulations*

Airtel Money and the MNO are registered as two separate entities, and regulated by two different regulators. The MNO is regulated by MACRA, while Airtel Money is regulated by the Central Bank, under the MoU with MACRA. The Reserve Bank of Malawi is the lead regulator for mobile money, and is now focused on developing and formalizing the overarching regulatory framework for the mobile money sector.

The Ministry of Finance is involved in the development of the strategic policy for mobile money, as part of its broader financial inclusion objective. A wide range of other regulators in Malawi are also exploring, and developing regulatory responses to the mobile money market, including regulators from the following sectors: telecommunications; competition; consumer protection; and anti-money laundering and countering the financing of terrorism. To date they have come up with The Electronic Transactions and Cyber Security Act, 2016.

2.12.4 *Partnerships*

Airtel money is integrated with banks, for wallet-to-bank and bank-to-wallet transactions. The biggest users of these facilities are teachers located in remote areas. Nevertheless, the facilities are open to all customer who have accounts with any of the banks.

Some NGO disbursements are done through Airtel, through the bulk payer platform. The Airtel team is also working on a model that will be using their existing agent network, as branches for MSME loan disbursements.

2.12.5 *Infrastructure and devices*

Although Airtel is looking at a low-end device strategy, the main challenge with this is the tax levied on the devices, which makes the cheap devices to be inaccessible. As for the network Infrastructure, all Airtel sites are now on 4G technology, which entails high data speeds.

2.13 *MSME training Lilongwe*

The MSME training and research targeted women entrepreneurs in urban Malawi. A total of 20 MSMEs, which were drawn from the National Association of Business Women (NABW) /FEMCOM attended the training.

2.14 *Cross border training in Mchinji*

The training and research targeted cross-border traders in rural Mchinji district bordering Chipata-Zambia, where 32 MSMEs owned by women attended the training.

3 PAYMENT INFRASTRUCTURE LANDSCAPE

The Reserve Bank of Malawi (RBM) is mandated to promote and oversee the NPS in the country. The payment infrastructure in Malawi has four main components:

- The Malawi Inter-Bank Transfer and Settlement System (MITASS),
- Automated Transfer System (ATS)
- National Switch (Nat Switch)
- Central Securities Depository (CSD)

In 2014, RBM under the World Bank, supported the Financial Sector Technical Assistance Project (FSTAP) that implemented an Automated Transfer System (ATS) and the Central Securities Depository (CSD). The ATS replaced the existing RTGS and the Electronic Cheque Clearing House (ECCH), which had been operational since 2002 and 2005 respectively.

Automated transfer system (ATS)	• Integrated interbank funds transfer system which combines features of an RTGS and the Electronic Cheque Clearing House (ECCH) • RTGS component enables high-value and time critical transactions to be settled in real time on an order by order basis, there is no netting that is required. • Automated clearing house component provides clearing and netting facilities for a range of low value electronic payments • Open architecture and standards enable banks to easily integrate their in-house systems with the ATS to attain straight through processing (STP)
Central Securities Depository (CSD)	• Depository for all government and RBM issued securities. • Linked to the RTGS function of the ATS to facilitate the electronic settlement of primary issues of Government securities, open market operations of the RBM, intra-day liquidity facilities and inter-bank money market operations among others.
Nat Switch	• Aimed at attaining the interoperability of auto-teller machines and point of sale devices.
MALSWITCH - NITEL	• Initially national network infrastructure and a transaction switch lining all commercial banks and discount houses onto a common network platform • Provided a number of electronic based payment, clearing and settlement facilities including, RTGS, Smart Card Scheme, Electronic Bidding System, Electronic Cheque Clearing House (ECCH). • Offers an advanced Mobile Payment Integration Platform that enables aggregation of various service providers' payment handling processes and enables access to these service providers by various integrated payment processors, principally off mobile payment applications.
SIRESS and REPSS	• 10 banks participating • Average monthly transactions just under 1,200 • Provide less than 0.2% of regional transactions
Paynet	• Electronic payments processing system
Cellulant	• Links banks and MNOs to mobile banking platforms, clearing happens on a real time basis while the frequency of settlement depends on bilateral agreements

3.1 *Market Products*

Airtel Money	**TNM Mobile Money – Mpamba**
✓ Mobile Commerce service ✓ 4 million registered users	✓ Mobile access to financial services ✓ offers P2P, B2W, W2B, P2B, B2P, bulk payments

3.2 *Pricing structure for digital payments*

Airtel Money

			Send Money	
Min	**Max**	**ATM Withdrawal**	**Airtel**	**Other Network**
50	500	20	10	195
501	1 000	40	20	215
1 001	2 500	85	30	275
2 501	5 000	150	60	375
5 001	10 000	380	100	555
10 001	15 000	755	150	930
15 001	20 000	780	175	930
20 001	25 000	1 500	200	2 075
25 001	30 000	1 700	25	2 075
30 001	40 000	2 000	250	2 075
40 001	50 000	2 300	275	2 075
50 001	60 000	3 000	300	3 925
60 001	80 000	3 750	325	3 925
80 001	100 000	4 000	400	3 925
100 001	125 000	5 000	500	6 675
125 001	200 000	6 500	500	6 675
200 001	300 000	9 000	500	10 675
300 001	400 000	11 000	500	10 675
400 001	500 000	12 500	500	15 175

Us$1 = K725

Source: AIRTEL MALAWI

4 POLICY AND REGULATORY

While markets play a role in the growth of the sector, the regulatory system also facilitates the development of the sector. The RBM has played an important role in creating a conducive regulatory environment that has fostered private sector led innovation and growth. RBM permits both banks and non-bank financial institutions to offer DFS. Some critical laws that were passed through parliament in 2016, including Payment Systems Act, E-Transactions Act and Communications Act have provided further guidance on the development of the DFS market. Following the Payment Systems Act, RBM issued a directive in September 2017, mandating interoperability of DFS through the National Switch.

The power to license, supervise and regulate financial service providers in Malawi cuts across different departments and ministries. These are summarized below.

Policy and Regulatory (Interoperability, Security, International legal obligations like AML)		
Policy/Regulation/Directive	**Key Issues**	
The Banking and Financial Services, ACT No 7 of 2017	• Regulates the availability of reliable and affordable communication services • Protects the interests of consumers, purchasers and other users of communication services in respect of the prices charged for the quality and variety of services provided and terminal equipment supplied.	
Competition and Fair-Trading Act	• Regulates, monitors, controls and prevents acts or behavior which may adversely affect competition and fair trading in Malawi.	
Customer Due Diligence for Banks and Financial Institutions	• Requires banks and financial institutions to establish and regularly maintain policies designed to determine the true identity of their customers as well as their customers' transactions.	
Financial Services Act No. 26 of 2010	• Gives a regulatory framework for offering bank agent services, and for providing standard in data and network security, customer protection and risk management.	
Guidelines for Licensing and Operating Money Transfer Agents (MTA)	• Provide a framework for licensing, monitoring, and supervising of MTAs • Ensures that money remittance service providers possess technologies to facilitate timely, accessible, cost effective, reliable and transparent mechanisms for transfer of funds to and from Malawi.	
Guidelines for Mobile Payment Systems	• Promotes a sound national financial structure, including payment systems, clearing systems and financial services.	
Money Laundering Act No. 11 2006	• Establishes a Financial Intelligence Unit responsible for receiving, requesting, analyzing and disseminating disclosures of financial information to competent authorities.	
Payment Systems (Interoperability of Retail Payment Systems) Directive of 2017	• Provides a legal framework for interoperability among financial institutions.	
Payment Systems Act, 2016	• Regulates the operation, regulation, oversight, supervision and monitoring of payment systems	
Regulations on Agent Banking	• Provide a framework for offering agent banking services, set minimum standards on data and network security, and implement customer protection and risk management regulations.	
The Malawi National Strategy for Financial Inclusion	• The Government believes that inclusive finance is essential for increasing agricultural productivity and production, starting or expanding micro and small enterprises, creating employment, increasing household income and smooth consumption.	
Payment Systems (E-Money) Regulations, 2019	1	Provides a regulatory framework for the provision of E-money services
	2	Provides minimum technical and operational requirements for the provision of e-money services
	3	Provide minimum standards on customer protection and protection of consumer funds.

4.1 *Interoperability*

Interoperability is a pre-requisite for all players in the payments systems, because in the absence of interoperability results in high cost of transactions for individuals, informal traders, and MSMEs, results in traders opting to use cash. This explains the high propensity for cash at the border towns. The RBM is advocating for a cashless economy because it provides data, thus making it easy for planning purposes. Secondly, it brings all the money back into circulation in the informal to the formal sectors, thus widening the tax base.

5 PICTORIAL FOCUS

Figure 73: Pictorial Focus - Malawi

APPENDIX 11: CENTRAL BANK GUIDE QUESTIONS

DIGITAL PAYMENT PLATFORM FOR REGULATORS (Central Bank) INTERVIEW GUIDE QUESTIONS

Section 1 – Regulatory Framework

Please provide your responses to the following questions in relation to your office.

1. What is the government doing in order to promote digital payments within the country?
2. What are your main focus areas as the central bank?
3. Are there any regulations or government initiatives that are aimed at regulating/promoting Financial Inclusion?
4. What is the central bank's position on digital payments?
    a. Blockchain, Crypto currencies
5. Who are the key stakeholders within the regulatory framework?
6. What do you think are the consequences of digital payments on the broad monetary system? How much as percentage of all transactions is settled through digital platforms?
7. What is the central bank doing to ensure that no money is created in the on the monetary system through digital platforms?

Section 2 – Business Support and Monetary System stability

8. Are there any regulations or government initiatives that are particularly aimed at Digital Financial Inclusion of the bottom of the pyramid including?
    a. MSMEs,
    b. The Informal traders
    c. Smallholder famers and
    d. Cross Border traders, most of which are women and youth.
9. What is the government doing to address the information gap that exist with the bottom of the Pyramid (BoP) economies (i.e MSMEs, the Informal traders, Smallholder famers and Cross Border traders)?
10. Do you think digitising the BoP economies has a potential to improve/worsen monetary policy? Please explain.
11. What your position on BoP economies inclusion and participating in international payments platform.
12. Inclusion of MSMEs has a lot of advantages to the MSMEs, but it however increases the exposure of the monetary system to foreign shocks how the bank does manage such.

Section 3 – Payments and Trade

13. What method of payment is the central bank using to receive and make payments?
14. What are some of the regulatory challenges you face when it comes to digital payments?
15. From a regulatory perspective, do you think there is need for coordinated policy interventions for a digital payment scheme at regional, and inter-regional level?
    a. What are some of the issues that the policy must address?
16. If we are to set up a COMESA payment Association and/or Switch, mainly looking at removing the barriers around payment processes across the borders, do you think this can improve:
    a. Access to finance and markets for MSMEs/Smallholders, and
    b. Increase the velocity of money.

APPENDIX 12: MINISTRY OF FINANCE QUESTIONNAIRE

DIGITAL PAYMENT PLATFORM FOR REGULATORS (Ministry of Finance) Interview guide questions.

Section 1 – Regulatory Framework

Please provide your responses to the following questions in relation to your office.

1. What is the government doing in order to promote digital payments within the country?
2. What are your main focus areas as a Ministry?
3. Are there any regulations or government initiatives that are aimed at Financial Inclusion?
4. What is the government's position on e-government?
5. Who are the key stakeholders within the regulatory framework?

Section 2 – Business Support and revenue collection

6. Are there any regulations or government initiatives that are aimed at Digital Financial Inclusion of the?
    a. MSMEs,
    b. The Informal traders
    c. Smallholder famers and
    d. Cross Border traders, most of which are women and youth.
7. What is the government doing to address the information gap that exist with the Bottom of the Pyramid (BoP) economies (i.e MSMEs, the Informal traders, Smallholder famers and Cross Border traders)?
8. Do you think digitising the BoP economies has a potential to improve revenue collection? Please explain.
9. As proportion of your country's Gross Domestic Product, what do you estimate to be the size of the MSME sector? (including the informal sector)

Section 3 – Payments and Trade

10. What method of payment is the government using to receive and make payments?
11. What is your experience with mobile money, bank transfers etc?
12. What are some of the challenges you face when it comes to digital payments?
    a. What are some of the challenges that that the citizens face when using digital payments?
    b. Have you as government faced any internal challenges in terms of implementing the digital inclusion programs in your country.
13. From a regulatory perspective, do you think there is need for policy interventions for a digital payment scheme at national, regional, and inter-regional level?
    a. What are some of the issues that the policy must address?
14. If we are to set up a COMESA payment Association, mainly looking at removing the barriers around payment processes across the borders, do you think this can improve:
    a. Access to finance and markets for MSMEs/Smallholders,
    b. Widen the tax base and
    c. Improve revenue collection

APPENDIX 13: MINISTRY OF ICT QUESTIONNAIRE

DIGITAL PAYMENT PLATFORM FOR REGULATORS (Ministry of ICT) QUESTIONNAIRE

Section 1 – Regulatory Framework

Please provide your responses to the following questions in relation to your office.

1. What is the government doing in order to promote digital payments within the country?
2. What are your main focus areas as a Ministry?
3. Are there any regulations or government initiatives that are aimed at Digital Inclusion?
4. What is the government's position on e-government?
5. Who are the key stakeholders within the regulatory framework?
6. What are the laws and regulations that govern the ICT sector and when where then enacted or published respectively?

Section 2 – MSME Business Support

7. Are there any regulations or government initiatives that are aimed at Digital Inclusion of the?
    a. MSMEs,
    b. The Informal traders
    c. Smallholder famers and
    d. Cross Border traders, most of which are women and youth.
8. What is the government doing to address the information gap that exist with the Bottom of the Pyramid (BoP) economies (i.e MSMEs, the Informal traders, Smallholder famers and Cross Border traders)?
9. What is government policy on access to information technology at the bottom of the BoP?
    a. Are there any targets set specifically to address access issues?
10. What is government doing in areas where commercial players consider to be unsustainable to put signal masts/base stations?
11. What is the mobile telephone penetration rate? And urban vs rural
12. What is the Internet Penetration Rate?
13. Would you consider the digital infrastructure available now to be adequate for the country's population? Urban vs Rural.
14. Is the ministry getting budgetary or donor support to ensure all sectors of the economy are digitally included especially the MSMES, smallholder farmers who ae mostly women and youth?

Section 3 – Payments and Trade

15. Are government ministries and departments ready for e-government?
16. What method of payment are government departments using to receive and make payments?
17. What are some of the challenges government departments face when it comes to digital payments?
    a. What are some of the challenges that that the citizens face when using digital payments?
18. From a regulatory perspective, do you think there is need for advanced training of BoP citizens before full scale adoption of digital payment can be achieved?
19. If we were to set up a COMESA regional payment association, mainly looking at removing the barriers around payment processes across the borders, what would you consider to be critical from an ICT perspective before implementation of such a platform?

APPENDIX 14: MOBILE NETWORK OPERATORS (MNO) QUESTIONNAIRE

DIGITAL PAYMENT PLATFORM FOR REGULATORS (Telecommunications) QUESTIONNAIRE

Section 1 – Regulatory Framework

Please provide your responses to the following questions in relation to your office.

1. What is the government doing in order to protect digital customers within the country?
2. What are your main focus areas as a telecommunications regulator?
3. Are there any Laws and regulations or government directives that are aimed at the digital customer?
4. Who are the key stakeholders within the regulatory framework?

Section 2 – MSME Business Support and Protection

5. Are there any regulations or government initiatives that are aimed at recognising digital contracting and trading?
6. What is the regulator doing to address the information gap that exist with the Bottom of the Pyramid (BoP) economies (i.e MSMEs, the Informal traders, Smallholder famers and Cross Border traders)?
7. What is government policy on coverage especially in areas where commercial players consider to be not viable for business?
8. Would you consider the digital infrastructure available now to be adequate for the country's population? Urban vs Rural.

Section 3 – Payments and Trade

9. What are the biggest challenges that the department is facing regarding digital transactions?
10. From a regulatory perspective, do you think there is need for advanced training of BoP citizens before full scale adoption of digital payment can be achieved?
11. If we were to set up a COMESA regional payment association, mainly looking at removing the barriers around payment processes across the borders, what would you consider to be critical from a regulatory perspective before implementation of such a platform?

APPENDIX 15: MANUFACTURES AND AGRO-PROCESSORS

DIGITAL PAYMENT PLATFORM FOR FINANCIAL INCLUSION DRIVERS Interview guide Questions

Section 1 – Business Characteristics

Please provide your responses to the following questions in relation to your business.

If you have more than one business, please answer in relation to what you consider to be your main business.

1. Business presence,
    a. In which countries is Monsanto present?
    b. Locally in Zambia, how many regions are you represented?
    c. What are some of your distribution channels and how do you ensure your products are disseminated throughout the whole country?

2. What are your main focus areas as a business?

3. Who are the key stakeholders within your value chain? What is the relationship with MSME's and/or Smallholders farmers?

4. As a percentage of your portfolio how would you describe your target market according to your classification? For example

    MSMEs/Smallholder ______________________

    Pastoral Small holder Farmers________________

    Commercial Farmers ______________________

    Associations______________________________

    Government_______________________________

    NGOs____________________________________

Section 2 – MSME/Smallholder Business Support & Finance

5. What are the products marketed to smallholder farmers and/or SMES?
6. Do you work out contracts to MSMEs and/or smallholder farmers for your production/service inputs?
    a. What is process – do farmers get inputs on credit or cash?
    b. What are the payment methods or modalities regarding contract farming?
7. Outside contract farming can MSME/Smallholder farmers access any input facilities on credit and pay after harvest? Do you have any partnership with for example government, Banks, MFIs that is aimed at upgrading smallholder famers?
8. Do you make use of the services of an association to access smallholder farmers?
9. What are the general types and trends occurring in MSME/smallholder farmers in terms of production?
10. What challenges has MSME/Smallholder support provided most recently for your organisation?
    a. Have these impacted on your targets and resulted in the generation of new criteria/approaches to MSME/Smallholder support?

Section 3 – Payments and Trade

11. What are the methods and channels for making payment to your key suppliers within the value chain, with a particular focus on MSMEs or Smallholder farmers? What is your experience with mobile money, bank transfers etc?
12. What are some of the challenges do you face when it comes to digital payments for MSMEs or small holder farmers? What are some of their challenges?
13. The MSMEs/Smallholder farmers that you work with, do they have access to export markets.
    a. A number of the above are situated along the borders and carry out cross border trade-where are they located; which areas/ border markets?
    b. If so, how are they paid for exports, and what are some of the challenges they meet in carrying out cross border payments?
14. From your experience working with MSME/Smallholders/ Suppliers do you think there is need for policy interventions for a digital payment scheme at national and regional? What are some of the issues that it must address?
15. If we are to set up a COMESA payment Association, mainly looking at removing the barriers around payment processes across the border, do you think this can improve business processes, access to finance and markets for MSMEs/Smallholders?

APPENDIX 16: MSME QUESTIONNAIRE

DIGITAL PAYMENT PLATFORM FOR MSMES QUESTIONNAIRE

Section 1 – Business Characteristics

Please answer the following questions in relation to your business. If you have more than one business, please answer in relation to what you consider to be your main business. All information will be treated confidentially and kept anonymous.

1. Are you
   - Male
   - Female
2. Please select your age category
   - 18-24 years
   - 25-34 years
   - 35-44 years
   - 45-54 years
   - 55-64 years
   - 65+ years
3. Level of education of MSME owners
   - No formal education
   - Primary
   - Secondary
   - Vocational
   - Tertiary
4. Your role in relation to the main business. Are You
   - The owner
   - One of the owners
   - Other ____
   - Prefer not say
5. Reasons for starting a small business
   - Entrepreneurial
   - Desperate
   - Other specify____

Section 2 – Business Demographics

6. What form does your business have
   - Sole trader
   - Partnership
   - Co-operative
   - Limited liability Company
   - Private Business Corporation
7. What was your initial investment for this business?
   Local conversions to be explained to respondents
   - Less than US$50
   - US$51 to US$100
   - US$101 to US$150
   - US$151 to US$200
   - US$201 to US$250
   - Over US$251

8. How long have you been in this business
   - Less than a year
   - 1 – 2 years
   - 3 – 4 years
   - 5 years and above
9. Is the business registered for VAT payments
   - Yes
   - No
   - Prefer not to say
10. Location where is the business based
    - Urban
    - Rural
11. How many staff members work in the business
    - Less than 9
    - 10 to 50
    - 51 to 150
    - More than 150
12. How many are temporary or seasonal?
    - Less than 9
    - 10 to 50
    - 51 to 150
    - More than 150
13. What industrial sector would you consider your main business to be in?
    - Retail and Wholesale
    - Agriculture
    - Construction
    - Mining
    - Tourism
    - Cross Border
    - Other ____

Section 3 – Access to Finance and Payments

14. What was your source of start-up capital?
    - Informal Credit
    - External finance/Formal Credit
    - Internal Finance/Savings
    - Both internal and external
    - Family and friends
    - Grants
15. Do you have an account specifically for making and receiving payments?
    - Yes
    - No
    - Prefer not to say
16. You have a
    - Business Bank account
    - Personal Bank account
    - Mobile money account
    - Other Specify____

17. How far is the nearest bank, bank agent or mobile money agent
    - Under 1 kilometre
    - Between 1 to 5 kilometres
    - Between 5 to 10 kilometres
    - Over 10 kilometres
    - I don't know
18. What is your preferred method of making or receiving payments?
    - Cash
    - Mobile Money
    - Bank Account
    - Other Specify____
19. How do you describe your experience with each one of the services in 16 above (tick one box based on your selection in 16 above)?
    a. Business Bank account
        - Very satisfied
        - Satisfied
        - Indifferent
        - Dissatisfied
        - Very Dissatisfied
    b. Personal Account
        - Very satisfied
        - Satisfied
        - Indifferent
        - Dissatisfied
        - Very Dissatisfied
    c. Mobile Money Account
        - Very satisfied
        - Satisfied
        - Indifferent
        - Dissatisfied
        - Very Dissatisfied
    d. Other____
        - Very satisfied
        - Satisfied
        - Indifferent
        - Dissatisfied
        - Very Dissatisfied
20. Do you feel secure carrying a lot of cash in doing business or general transactions?
    - Yes
    - No
    - If No please explain

    ____

21. Which mobile technology are you comfortable using
    - Basic Phone
    - Feature phone
    - Smart phone

22. If cash is not an option how soon would you want to receive payment in local trade?
    - Instantly
    - Before delivery
    - Immediately after delivery
    - After 1 day
    - Other specify____
23. If cash is not an option how soon would you want to receive payment in international trade?
    - Instantly
    - A day
    - Before delivery
    - Immediately after delivery
    - After 7 days
    - Other specify____

Section 4 – Trade facilitation and e-commerce

24. Where do you mainly sell your products/services?
    - Within city/municipality
    - Within province/region
    - National – across the country
    - Export/foreign markets
25. Do you get to sell in the market through contracts worked out by larger companies?
    - Yes
    - No
26. Do you work out contracts to smaller businesses for your production/service inputs?
    - Yes
    - No
    - n/a
27. Do you make use of the services of an association to access markets (export and local)?
    - Yes
    - No
28. Do you make use of any form of unregistered middlemen to access markets?
    - Yes
    - No
    - Prefer not to say
29. Can your product or service be ordered online
    - Yes
    - No
    - n/a
30. Do you use digital platforms to engage in cross-border trade?
    - Yes
    - No
    - n/a
31. Would you consider ordering your inputs online and pay digitally
    - Yes
    - No
    - I don't know
    - I need more information
32. Would you consider selling your produce online and getting paid digitally
    - Yes
    - No
    - I don't know
    - I need more information

33. Are you likely to use mobile payment solutions in conducting cross-border trade?
    Yes
    No
    Not sure
    If YES please explain how you would want such system to work for you ____________________
____
____

34. Where do you get your raw materials/consumable inputs for your business?
    Within city/municipality
    Within province/region
    National – across the country
    Export/foreign markets
35. Are you a member of any business or trade association?
    Yes
    No
36. If YES, have you ever availed of any of their service to improve your business?
    Yes
    No
    n/a
37. What are your most important sources of market information?
    Newspaper
    Internet
    Registered Association
    By visiting the market place
    TV channel
    Mobile messages
    Brochures
    Friends and relatives
38. Would you consider a platform that sends market information through your phone?
    Yes
    No
    I don't know
39. What level of training do you need in order to do your business digitally?
    Basic
    Moderate
    Advanced

40. How willing are you to expand your digital skills?
    Very Much
    Very
    Enough
    A little
    Not at all
41. How important do you consider digital skills to be in your business?
    Not at all important
    Insignificant
    Important
    Very important
    Extremely important

42. Do you think MSMEs are underrepresented in the digital space?
    - Yes
    - No
    - I don't know
43. Do you think the digital business field is one of the most important indicators of success in the 21st century economy?
    - Yes
    - No
    - I don't know
44. Do you think social media is important in business?
    - Yes
    - No
    - I don't know
45. Do you think digital mobile payments are expensive or affordable for your business? Kindly explain why.

    ____

    ____

46. What has been your experience with digital mobile payments?
    - Moderate
    - Good
    - Excellent
    - Bad
    - Very Bad
    - Not interested

    Kindly explain your response above ____________________________________

    ____

47. How much transaction fees do you expect if you have to use mobile payments instead of carrying cash? Please give an estimation of a transaction and your expected charge for that transaction:

    ____

    ____

    ____

48. What is your expected maximum cap for money transfers in your business per day through a mobile money account?

    ____

    ____

49. What are the value added services you expect from the mobile money provider when you are using their platform? State your priority from the choices below, marking each from a scale of 1 – 5 (1 being low in priority and 5 being highest in priority).

    - Bank statements
    - Commodity price information
    - Currency exchange rates
    - Product focus demands
    - Credit worthiness statements
    - Others____

50. Do you think digital payment systems can improve your annual turnover?

Yes

No

I don’t know

51. Do you think a regional payment system for cross-border trading will impact your business?

Yes positively

Yes negatively

No

I don’t know

n/a

DFI4SMEs

A CBC Digital Financial Inclusion Program

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