

FACTORS INFLUENCING BRANCHLESS BANKING FOR MICROFINANCE IN SUDAN: THEORETICAL PERSPECTIVES AND FUTURE DIRECTIONS

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Abstract

In Sudan more than 40% live below the poverty line and getting basic financial service poses a challenge to financial institutions. Most of these unserved populations live in far-flung areas that make it difficult for microfinance institutions to reach them. But the enormous growth of mobile technology industry has created new opportunity to expand financial services to this unserved population. Branchless banking is one of the latest technologies that have been employed in different developing countries to expand financial services to the unbanked poor. Despite the potential benefits and relevance of Branchless banking to Sudan, there are still very few studies on Branchless banking in Sudan. To address this gap in the literature, this study aims to investigate the factors that are essential to the development of branchless banking in Sudan using mobile technology. This is a research-in-progress paper, the critical review of the literature so far revealed that there are essential factors for the success of branchless banking in Sudan e.g. the identification of the industry key players and their roles, the enabling regulatory environment, the infrastructure readiness and Sudanese cultural values. The paper will provide regulators and policy makers in Sudan a way forward to expedite the development of suitable Branchless banking for microfinance in Sudan.

Keywords: *branchless banking, Microfinance, Sudan, Financial inclusion*

1 INTRODUCTION

Many countries are striving to extend basic financial services to reach out under-served urban and rural population. It has been estimated that 2.5 billion adults lack access to basic formal financial services (Financial Access Initiative Focus Note, 2009). This implies that many of population in underdeveloped countries are excluded from accessing financial services. The term financial inclusion has been described as the notion of providing financial services for the unbanked people to be included within the financial system. (Kumar and Gupta , 2008). Camner and Sjöblom (2009) argue that incorporating populace within the formal economy has numerous benefits for the governments as it creates financial security, decreases corruption and it creates better infrastructure for economic development. Accordingly, many governments and international monetary agencies have focused on

ways to increase financial inclusion (Financial Assess survey, 2010). Various techniques were adopted to increase financial inclusion, for example opening new branches to reach out customers in inaccessible places was one of the early measures that were adopted to increase outreach; however such an approach has not proved to be effective as the cost of establishing new branches is expensive and where it was established it failed to accommodate the needs of all segments of the society and thus has not attained financial inclusion. Another technique that was used to increase financial inclusion was introducing Branchless Banking (BB) which means delivering financial services outside conventional bank branches using Information Communication Technologies (ICTs). Scholars revealed that (ICTs) solutions enabled banks to facilitate financial transactions remotely through mobile devices (Kashyap, 2009). Additionally, BB was found to be a cost-effective solution to deliver financial services for those living in remote place in comparison to conventional branches. For example, Kumar et al. (2006) argue that the cost of setting a BB model in Brazil (Bank representative at a retail agent) only formed 0.5% of the cost of establishing a bank branch.

This approach (BB) is seen as a promising channel to facilitate financial access and accelerate financial inclusion especially in countries where there is no robust financial and banking infrastructure. A recent survey carried out by CGAP (McKay and Pickens, 2010) revealed that BB attracted and obtained more unbanked clients in comparison to the largest microfinance institutions in the country. In their study they found that five of the eight institutions studied Banco Postal (Brazil), FINO (India), M-PESA (Kenya), M-PESA (Tanzania), and Smart Money (the Philippines)—branchless banking has on average 79 percent more active, previously unbanked clients than the largest MFI in the same country has among its microcredit clients. Please refer to Table 1.

In Sudan, little research was conducted to understand branchless banking and the environment needed to develop an effective branchless banking for Sudan. Thus this paper aims to understand the factors that should be considered to develop a successful branchless banking that is suitable for Sudan context. The identification of these factors will help policymakers, regulators and developers to identify a way forward to expedite the development of suitable pro-poor branchless banking for Sudan context. This paper is organized as follows: section Two describes microfinance practice, section Three discuss Branchless banking and its models, section Four describes the state of play in Sudan, section five introduces the success factors for branchless banking and section Five presents the conclusion of the paper.

Table 1: Active, Unbanked clients of eight branchless banking providers and the largest MFIs in the same country

Country	Branchless banking provider	Branchless banking: (Active) previously unbanked clients	Largest MFIs in the market	MFIs: active microloans clients
Brazil	Banco Postal	1,461,850	Banco do Nordeste	528,792
Cambodia	WING	56,000	Amret Microfinance	226,262
India	FINO	6,050,667	SKS	5,300,000
Kenya	Safaricom	1,866,896	Equity Bank	700,000
Philippine	Globe	247,500	Card	987,435
Philippine	Smart	1,320,000	Card	987,435
South Africa	WIZZIT	27,375	Capitec Bank	638,616
Tanzania	Vodafone	108,820	Pride Tanzania	106,082

Source:(CGAP compiled from: Bosch and Anson (2008), Bowen and Goldstein (2010), Consulta (2010), FSD Tanzania (2009), Jack and Suri (2009), Leishman (2009), Morawczynski et al. (2010), Morawczynski and

Pickens (2009), Pickens (2009), MIX for active microcredit borrowers, and CGAP interviews with senior managers of Banco Postal, FINO, and WING.

Despite the great success of branchless banking providers in many countries to acquire new customers (unbanked ones) but still this practice is still faced with many challenges for example, handling money through a third party, building a trusted network of agents, technology issues, conforming to money laundry regulations, developing a robust legal and regulatory framework that control the branchless banking practice.

1.1. Microfinance

Another notion that has been closely linked with financial inclusion is microfinance (MF). Microfinance is offering a mix of financial services to the active poor. Ledgerwood (1999) described MF as providing micro-credit, savings, loans, insurance, leasing, money transfers, and others to those originally excluded from the financial system. MF has been regarded as an essential tool to alleviate poverty by assisting active poor to generate income, save and invest. Many scholars considered MF as a technique to amplify financial inclusion as it entails offering financial services to the poor who are originally precluded from accessing the formal financial system (Bakhtiar, 2006). And with the advancement in technology, and the vast spread of mobile phones and Internet banking, and the way it created new opportunities for providing financial services for different segments of the society, it was only natural that microfinance institutions (MFIs) have hoped that ICTs can provide a promising solution to deliver micro financial services to the poor.

Thus many MFIs worked closely with ICT developers to make use of enormous growth of technology to design micro-financial services that cater for the needs of the unbanked segments of population. For example Globe Telecoms' teamed up with the Rural Bankers Association of the Philippine to deliver services to un-served population (Owens.et.al.2006). Examples of micro financial services available through this partnership are making remote deposit, withdrawals and loan repayments between Gcash and rural bank account (Mas and Ignacio, 2008). According to DFID (2009) the use of mobile phones to transfer money locally and internationally draws another example on how technology has enabled unbanked poor customers to access financial services and in a cost-effective way. Studies revealed that mobile phones can lower up to 75% of the cost of money transfer nationally and internationally (Mas and Ignacio, 2009). According to Ivatury and Mas (2008) mobile technology has lowered the cost of banking transactions, for example, in the Philippines a typical transaction (such as cash deposit or withdrawal) that carries out through traditional banks costs around \$2.50 while the same transaction would only cost \$0.50 through mobile phones. Thus the use of mobile banking or branchless banking has offered MFIs the hope to stretch the delivery of its financial services to those who are not originally served on 'brick and mortar' offices.

1.2 Branchless Banking

Branchless banking is simply employing technology to deliver financial services for the population, there are two types of BB practice: additive and transformational (The Economic Issue of the Day, 2009). The additive practices work by providing additional channels to serve existing customers of financial institutions such as the use of Automatic Teller Machine (ATM), Point of Sale (PoS) or Internet Banking to provide more financial services for banking customers. While transformational BB practices involve devising new channels to reach out and serve the unbanked poor in an economical way. It involves using of the technology to acquire new customers rather than delivering banking services to the existing ones. In this context, the transformational BB practice is more entwined with the essence of MF, as MF seeks to provide financial services for the poor and transformational BB seeks to employ mobile technology to deliver financial services for un-served population. Thus in the following section of this paper describes models of transformational BB and its aptitude in reaching out poor, illiterate customers living in far-flung areas in different countries using mobile technology to access financial services.

2. MODELS OF BRANCHLESS BANKING

According to CGAP (2008) there are two models of Branchless banking bank led and non-bank led. The main difference between these two forms relates to the entity (bank or non-bank) to set the relationship with the customer and the nature of agency agreement between (bank and the non-bank) (Sultana, 2009). The similarity between the two BB forms is that both models use retail agents to deliver financial services beyond traditional branches.

2.1 The Bank-Led Model

This model is composed of a sequence of three main entities; the bank, the retail agent, and the customer. This sequence starts when banks develop their financial products and services that are delivered to clients through retail agents that interact directly with clients on behalf of the banks. Basically, the bank is mainly responsible for opening and holding the account (cash in cash out transactions). The retail agent is responsible for verifying customer's ID, performing face to face transactions, processing applications, forming groups, disbursing small values to the bank, collecting loans and small deposits, vending insurance products, and dealing with small remittances. (Chowdhury, 2010).

Customers are able to access the mix of financial and non-financial service available. To enable retail agents to facilitate the communication between the customer and the bank, the bank is responsible for installing electronic technology such as mobile phones or PoS devices for the retail agent. But in some countries like Brazil the bank license management companies on its behalf to carry out its responsibilities such as outfitting retail agents with technology and monitoring their performances, albeit the bank is still accountable to the customer in the case of retail agent's fraud or negligence (Lyman, 2006). The model is also used in Pakistan, South Africa and India where Indian branchless regulating policy obliges the retail agent to show all transactions on the banks' books within 24 hours (RBI's circular dated 25 January 2006).

The bank led model has been credited for facilitating the interaction between financial institutions and customers living in distant places who can access financial and non-financial services by visiting the retail agent. Common risks associated with this model may mainly be related to lack of training to the retail agent staff, and the actual security of the system, which is not far too different from risks associated with conventional branch based banking.

2.2 Non Bank-based model

The sequence of this model is composed of three or four main entities, respectively: the mobile network operator (Nonbank), the retail agent as a hub for customer who acts as the third entity in this chain. Banks are not a main player on this practice, as at times its role is limited to holding the account of the nonbank's issuance but typically does not have a direct relationship with the customer or the retail agent.

The Nonbank manages customer e-money accounts. The retail agent checks customer's ID and transact on behalf of the nonbank using either mobile phone or smart card reader. Whereas the customer request financial services using again either the cell phone or the smart card. Customers can use their e-money to buy products or services, save or exchange their balance for cash at the retail agent. The uniqueness about this model is that customers can enjoy a mix of financial services without having a typical traditional bank account. They can exchange their cash for a value stored on a card or their mobile phone. Their account is an e-money account that is stored on the server of the nonbank. The nonbank can be a prepaid card issuer or a mobile network operator. The prepaid card issuer usually outfits the retail agent with PoS card reader and other mobile technology to record transactions. Whereas the mobile phone network operator has already a pre-established relationship with both the

retail agent and customers through its mobile phone services. In both cases the retail agent sell and buy e-money to customers either using a mobile phones (if is a mobile network operator) or PoS card reader (if it is a prepaid card issuer). One of the most successful applications of the nonbank model is the Safaricom's M-Pesa model in Kenya. The model is also used in Tanzania and Afghanistan. M-Pesa is a mobile payments solution that enables customers to keep money in a virtual 'stored value' account maintained in a server by the telecoms provider and operated by users through their mobile phone. Customers can interact with M-Pesa agent to deposit or withdraw cash their stored value can be used to buy airtime or send money to relatives or friends or even just to store money in their e-money accounts. In Kenya, subscribers have the option of paying bills and premiums to a network of nearly 100 utilities companies, insurance brokers, corporations, NGOs, microfinance institutions (MFIs) and others (Camner, and Sjöblom, 2009)

Another successful example of nonbank application is evident in the Philippines, where the two mobile network operators – Smart communications and Globe Telecoms has managed to provide their customers with various financial services through Smart Money and G-Cash their customers are estimated around 8 million (Owen, Bantug, 2006). Common risks associated with this model may be mainly related to e-money risks. For example, unlicensed and/or unsupervised nonbank establishments will collect repayable funds from the public in exchange for e-money without being subject to prudential regulation and supervision. Table 2 summarises the technology, services in the bank and nonbank branchless banking in five countries.

3. THE STATE OF PLAY IN SUDAN:

Sudan: BASIC FACT SHEET	
Population	36.787 million (Demographic data excludes South Sudan) (July 2011 est.) (CIA, 2011)
Median age	18.5 (CIA, 2011)
GDP per capita	\$2,300 (CIA, 2010)
Population below national poverty line (%)	40% (2004 est.) (CIA, 2011)
No of Mobile Phones	17.654 million (CIA, 2010)
MFIs out reach	0.04 (Branches per 100,000 adults) (FA, 2010)
No of ATM	2.03 (100.000 adults)
No of POS	5.60 (100.000 adults)
Mobile Network Operator	Market is dominated by 3 MNO (Zain, MTN, Sudani)

It is clear that Sudanese access to financial services is still limited and centralized on urban areas, and over 40% of Sudanese live below poverty line. So it was natural that the government seeks ways to improve the livelihood of people in Sudan by providing financial services for different segments of the society. As many countries Sudan has adopted MF as a tool to alleviate poverty and on 2007 the Central bank of Sudan has launched MF strategy. On the same time, the mobile phone industry has been growing fast. The penetration rate of mobile phone has jumped to 54% in 2010 (ITU, 2011). Similar to many countries Sudan has recognized the role of branchless banking as a tool to access financial service. Financial institutions and mobile network operators joined efforts to make use of mobile technology for example, short message service (SMS) banking for basic account queries, sms services are also used to top up mobile phones credit from customers' bank accounts.

Table 2 summarizes the most popular applications of BB in five countries.

Table 2 applications of branchless banking in five countries

<i>Applications of branchless banking in five countries</i>			
Country	Type of Agents	Technology employed	BB model and service available through agent
Brazil	Retail outlets (grocery stores, drug stores, gas stations, other retailers) and lottery and postal outlets (all referred to as banking correspondents).	Payment cards Card readers.	Bank-led model: Consumer loans, deposits, withdrawals, personal credit, account balance statements, bill payments, receipt of applications to open new accounts (savings, loans, credit cards), money transfers, insurance, and payment of government benefits and pensions
India	MFIs registered under various laws (NGOs, mutually aided cooperative societies, cooperatives, section 25 companies, non deposit-taking NBFCs) and post offices (all referred to as business correspondents)	1.Web-based systems 2.payment cards, 3. card readers	Bank-led model: Small-value credit (including identification of borrowers; collection, preliminary processing, and submission of loan applications; collection of interest; and follow-up for repayment and loan recovery); small-value savings; micro insurance; small-value money transfers; account opening
South Africa	Post offices, EasyPay pay-points (supermarkets linked to the national payment system through EasyPay's infrastructure)	Mobile phones Payment cards. 3. Card readers	Bank-led model: Account opening, bill/tax payments, payment of salaries, money transfers, airtime top-up, and basic banking services
Philippines	Mobile network operator's retail stores, other retail outlets, rural bank branches	1. Mobile phones	Nonbank-led model: Item purchases, loan disbursements/repayments, bill/tax payments, money transfers and remittances, airtime top-up, and small-value deposits and withdrawals
Kenya	Airtime vendors, supermarkets, and, in the future, other retail outlets	1.Mobile phones, 2. prepaid payment cards 3. Card readers attached to PCs	Nonbank-led model: Loan disbursement and repayment, bill/tax payment, money transfers, and small-value deposits and withdrawals

Source (Lyman, 2006)

Mobile phones credit are also used to pay bill for different companies such Internet service providers and electricity companies. Another mobile technology that is commonly used in Sudan is PoS terminals to facilitate payments for card holders, and recently the National Electricity Company is currently introducing a network of PoSs terminals at merchants to allow its customers to exchange their cash for getting electricity units. The airtime-transfer is also commonly used between person to person who receives phone services through the same mobile phone operator. A part from these scattered efforts that seeks to employ mobile phones in conducting financial transactions, and a single attempt that was initiated by the UNDP and the Microfinance Unit of the Central Bank of Sudan to conduct a feasibility study on pro-poor Branchless banking in Sudan that has started on October 2010, up till now there are no any published results on this project.

Despite global recognition of branchless banking in improving financial access to the unserved population, but hitherto in Sudan, branchless banking has not been exploited. Clearly BB models cannot be directly copied from one country to the other as each country has its own unique economic and socio-cultural perspective, in addition to its distinctive regulatory framework and technology infrastructure (Robertson, Roland, 1992).

4. SUCCESS FACTORS FOR BRANCHLESS BANKING

From the literature it appears that there are essential factors that act as building blocks necessary for the success of branchless banking in Sudan. According to (Sultana, 2009) success of m-banking/Branchless banking depends on three key determinants: policy and regulation, and profitable/sustainable business case for all actors and customers' adoption. Sultana (2009) argues that policy and regulation are the most essential components for technology success. In this research, additional factors are identified; it is believed that culture is critical to the success of the technology (Eberlein, 2008). Additionally infrastructure can be a vital element to the success of technology, the readiness of infrastructure and the level of its development can affect the acceptance of technology.

Furthermore, understanding the role of key players within the industry is essential factor that needs to be considered when investigating the success of technology. In this research, Infrastructure, Key players within the industry, the enabling regulatory environment, and the culture are identified as essential factor for the success of branchless banking in Sudan. Below is an illustrative figure for the factors.

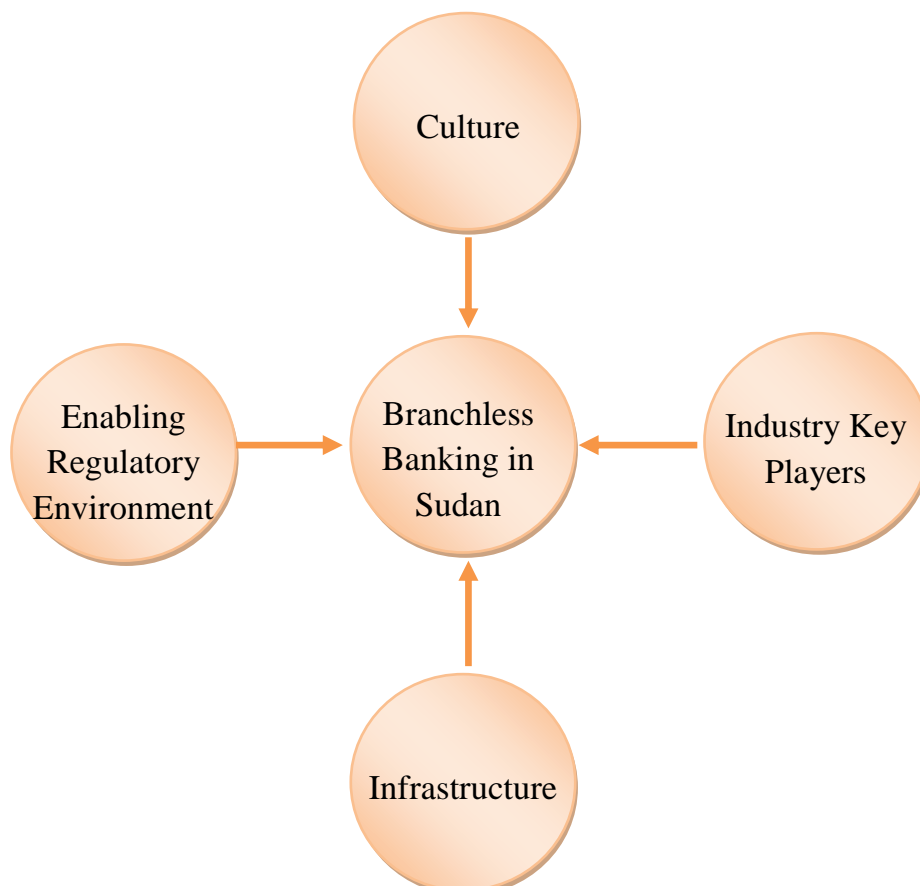


Figure 1 factors essential for the success of branchless banking in Sudan

4.1 Key players of the BB models:

The success of branchless banking rest on good understanding of the key players within each of the model, and the way they interact with each other to deliver better micro finance solutions that fulfils customers' needs. Delineating the responsibilities of key players within each of the BB models can be a key determinant for the branchless banking success. In the following section, based on the literature and the international experiences the responsibilities of key players within BB models are sketched out in Tables 3 and 4 illustrating the role of each player.

Table (3) Outlines Responsibilities of Key players on Bank-Based Branchless Banking

Bank/MFIs	<p>Develop and market Microfinance services.</p> <p>Build and manage network of retail agents.</p> <p>Train retail agent.</p> <p>Provide retail agent with the technology (POS or Mobile phones).</p> <p>Credit and debit customers' bank account and other parties involve within each transaction</p> <p>Supervise and monitor all transactions.</p> <p>*may contract a third party to equip retail agent with technology</p>
Retail agent	<p>Agents are independent from Bank/MFIs or Mobile network operator MNOs.</p> <p>Interact directly with the customer on behalf of the bank/MFIs.</p> <p>Verify customers" ID.</p> <p>Receive / deliver cash to the client.</p> <p>Process customers' transactions.</p> <p>Responsible for internal administrative procedures to serve customer</p>
Customer	Initially customer request financial services (Cash & non Cash) services from the retail agent
Microfinance services	<p>Services are only available for account holders. Example of services:</p> <p>Account opening</p> <p>Money transfer.</p> <p>Finance applications, finance disbursal</p>
MNOs	Have no direct role on this model, but it can benefit from all communications done through mobile technology (sms, data transmission).

Source: (CGAP, 2010)

Table (4) Outlines Responsibilities of Key players on Non Bank-Based Branchless

Bank/MFIs	The bank has no contractual direct relationship with customers. Hold net fund from non bank issuance of e-money on behalf of nonbank.
Retail agent	Interact directly with the customer on behalf of the nonbank Verify customers" ID. load / unload customer's virtual account. Process customers' transactions. Use either mobile phones or smart card readers. Responsible for internal administrative procedures to serve customer
Customer	A customer signs a contract with nonbank to open virtual account. Buy e-money from telco-agent, and store it in his virtual account. A request financial services (Cash & non Cash) service through their mobile phones or smart cards in the latter case, customer has to visit the agent.
Microfinance services	Services are only available for subscribers, can be to any one wish to subscribe Example of services: Account opening Money transfer. Deposit and withdrawal from customer's virtual account. Finance applications, finance disbursal
Nonbank (MNOs/ an issuer of stored-value cards	Has a contractual direct relationship with the customer. Register transactions Updates customer's virtual account and other parties involve in transactions with customers. Store customer's virtual account on its server. Markets the service to the customers. Manages the network of agents (same agents as for airtime) Manages virtual accounts. Operates mobile platform register all transactions on customers' and agents' virtual accounts.

Source: (CGAP, 2010)

- **State of Key Industry Players in Sudan:**

The Sudanese mobile phone market is dominated by three companies (Zain, Sudani and MTN), the mobile phone market is still growing and has not shown any sign of saturation yet. Sudanese mobile phone customers' are still excited and keen in using mobile phones especially for voice communications. The Finance Minister on its 2012 budget has increased taxes on voice calls to 30% to decrease volume of mobile phone calls. MNOs have a fertile market to invest in mobile technology with excited keen customers who may be interested in utilizing this familiar technology to get financial services that they are desperate for financial inclusion. On the other side Banks and MFIs are encouraged by the Central Bank of Sudan to extend its services and acquire more customers. Banks are obliged to assign 12% of its financing portfolio to MF. It appears that the environment seems to be promising for BB practice in Sudan. As the main players within the industry seem to be interested in making use of mobile technology to get access to financial services, and the existence of known BB models can be utilized as a benchmark for developing BB model that suits Sudan context. In view of that, the main players are required to carry out collaborative efforts that enable them to define their roles and the way they intersect with each other so suitable BB model can be developed for Sudan.

4.2 Enabling Regulatory Environment for BB

The dynamic use of different BB models in Africa, i.e. the M-Pesa model in Kenya, Tanzania and the WIZZIT in South Africa (CGAP, 2008) implies that other countries in the region have a good potential to have a similar successful experience. However, a robust enabling regulatory framework needs to be established to enable BB work. The enabling regulatory framework will cover policies and legal issues related to the environment of Branchless banking. According to the DFID report (2006) some areas were highlighted as focal points for financial regulators these areas are:

- Agent: What are the control measures that should be performed to allow a third party to handle cash or any operation on behalf of financial institutions?
- E-money issuance: what are the laws, regulations and policies that regulate issuing, dealing with e-money?
- AML/CFT: How do Anti money laundering (AML) combating the financing of terrorism (CFT) regulations affect account opening and cash transactions? What are Know Your Customer regulations (KYC)? Are AML/CFT and KYC requirements adequate to mobile banking small transactions that they are out of the branches?
- Consumer protection: Are consumers adequately protected against fraud, loss of privacy, loss of service, or any other risks related to agent or e-money?.
- Mobile Payment: How does m-payment affect the stability of the banking and national payment system?

- **State of the Regulatory Environment in Sudan:**

As yet, in Sudan there has been little consideration of changes in the regulation of banking and payments arising from changes in mobile banking. There is no permission to any third party to handle money or cash transactions on behalf of financial institutions. E-money issuance is not permitted in any form. Although AML-CFT regulations are applied in Sudan but it has not been adapted to deal with small transactions carried through mobile technology. There is a need to develop consumer protection law that protects customers against several risks associated with BB practice. According to the Financial Access report (2010) Sudan has neither a general consumer protection law with or without explicit reference to financial services. Thus, there is a need to regulate this practice.

4.3 Infrastructure concerns

Regardless of the branchless banking option that may be employed by the MFIs, there are a number of essential components that must be in place before any financial institutions can employ branchless banking into their business. The following section explains these components and their status in Sudan.

- **Transaction Infrastructure:**

It includes the hardware, application software, service providers, financial institutions, switches, clearinghouses, and all the main parts of electronic banking. Many factors have to be taken into account when considering branchless banking transactions (Dailey et al., 2007). Authentication of the transactions is essential as it refers to connecting the transaction back to a specific person, it is carried out using a visual check of a photo ID, or through a more advanced technique using PINs and biometrics methods. Security is another important requirement. It must be built into the system at many levels, from both a technical and operational side. Repudiation means the acceptance of transactions when they are carried out properly, it is mainly to ensure that the agent bear risk related to their responsibilities e.g. carrying out proper check for the customer). Non-repudiation is important as neither the bank nor the customer can deny that the transactions have occurred. Another key point is to have a reliable transaction infrastructure is to provide a reliable connection infrastructure across which it operates.

- **Check Clearing**

There is a well-developed check clearing mechanism in Sudan that currently functions without the use of a real-time gross settlement (RTGS) system that is expected to be launched very soon. The banks

have corresponding bank relationships and they clear checks against each other, but MFIs are not part of this system.

- **ATM and PoS Network**

Although the commercial banks in Sudan have developed their own ATM and PoS networks, until now most MFIs have no special access to this network. That means Microfinance banks and MFIs cannot use the ATM network as a means of disbursing finance to their customers.

- **Management Information System (MIS)**

MIS system is the backbone that enables the connectivity between MFIs branches and headquarters. MIS is essential to meet the challenges of delivering microfinance services through branchless banking such as optimization of customers' information. In Sudan, currently, many MFIs are using manual MIS systems or using MS Access or excel sheets for information management. They need to develop MIS strategy that moves their institutions toward core banking quality backend systems. This will enable them to interconnect with existing and emerging branchless banking payment systems.

4.4 Culture:

It is evident in the literature that ICT is not culturally neutral Madon (1997). Crabbe et al, (2008) argue that culture influences the adoption of mobile banking and related technologies in Ghana. It was also cited that customers' rejection to the technology has been identified as one of the major causes for market failure of innovations (Laukkanen et al., 2007). Thus understanding customers' needs is crucial to the success of branchless banking. Customers of branchless banking are unique in a way as they can be described as more vulnerable customers in comparison to others who most of them are illiterate, poor, excluded from basic financial services, and may be extra anxious from engaging in new businesses which necessitates a comprehensive understanding of how to use branchless banking within their social and cultural contexts. A previous study suggests that one has to go beyond seeing money in terms of its functions as a unit of account to a store of value and a medium of exchange. Money is embedded in networks of trust and only then it becomes money (Dodd, 1994). Thus for a branchless banking practice to be successful in Sudan, it is very critical to understand cultural factors that influence the use of customers', there is also a need to understand key stakeholders' behaviours (such as Banks/MFIs, MNOs, Agents) and on the same time understanding the cultural values of poor who live in deprived areas that is inaccessible and may suffer from post conflict and other social issues.

5. CONCLUSIONS

Despite sincere efforts from scholars, financial regulators and international monetary agencies to shape new ways to enhance financial inclusion through microfinance but yet financial inclusion has not been effectively beget. Branchless banking has emerged as a new technique that has great potentials in delivering a new scope for financial services to the unserved population. In Sudan, branchless banking has not been introduced yet, despite several success stories of using branchless banking in the region, such as in Kenya and South Africa. In Sudan, Microfinance industry players, MNOs, and regulators need to unite their efforts to capitalise this branchless banking promising opportunity to increase outreach and accessibility of microfinance. Rather than being concerned with which branchless banking model to be adopted in Sudan, the paper focused on investigating the main success factors for branchless banking in Sudan (and similar countries). The paper has identified the main players of the branchless banking and their roles within each of the models, the modifications needed to make the regulatory environment more accommodating for branchless application. The paper has also highlighted the importance of preparing the infrastructure and the need to understand the impact of culture on accepting branchless banking in Sudan. Further research in the topic is needed for each of the factors identified as a success factor in this study. These factors can contribute to the development of an adoption model for branchless banking in Sudan.

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