

The Relationship between Agency Banking and Financial Performance of Commercial Banks in Kenya

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Abstract

Banking agents are usually equipped with a combination of point-of-sale (POS) card reader, mobile phone, barcode scanner to scan bills for bill payment transactions, Personal Identification Number (PIN) pads, and sometimes personal computers (PCs) that connect with the bank's server using a personal dial-up or other data connection. This research used the descriptive design method using secondary data gathered from the commercial banks in Kenya that had adopted agency banking in Kenya. The population of the study was the 10 commercial banks in Kenya that had adopted agency banking by the end of 2012 namely Equity Bank, Co-operative Bank, KCB Bank, Post Bank, Family Bank, Chase Bank, Consolidated Bank, Diamond Trust Bank, Citibank and NIC Bank. Annual reports on individual banks' financial performance were used to extract financial performance indicators. CBK's annual report and supervisory reports were also used to establish the number of agents registered and the total transactional value conducted through the agents. The variables of interest were the cash withdrawal and deposit transactions done through agents, number of active agents, return on assets, cost to income ratio and staff cost to revenue ratio.

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1 Introduction

Though the bank continues to invest in rolling out brick and mortar branches that are complimented by various delivery channels, the challenge of access to formal financial

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services remains a big impediment to financial performance. Customers (especially in remote areas) are forced to travel long distances and spend huge amounts on transport in order to access a branch. In addition to the cost of transport is the time spent commuting to and fro that could have been spent more productively. To curb these challenges, the central bank of Kenya released a legislation that allows commercial banks to contract third party retail networks as agents.

Agency banking refer to bank partnerships with non-banks, typically retail commercial outlets, ranging from lottery kiosks, pharmacies, post offices, construction goods stores, and so forth, to provide distribution outlets for financial services (Kumar, Nair, Parsons & Urdapilleta, 2006). An agency bank is an organization that acts in some capacity on behalf of another bank, it, thus, cannot accept deposits or extend loans in its own name; it acts as agent for the parent bank. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance or a direct deposit from their employer. That is, the agent is involved in carrying out certain specified transactions for the customer on behalf of the Bank.

Agency banks offer normal banking services such as cash deposits and withdrawals, disbursement and repayment of loans, salary payments, pension payouts, transfer of funds and the issuing of mini bank statements, all through shared infrastructures. In addition, the agency network allows banks to reach new customers, who can open new accounts, perform credit and debit card applications and cheque book requests (CGAP, 2006). Through cost-effective agency banking networks, customers access banking services in kiosks around the country, particularly in remote, previously unbanked territories.

Agency banking has enabled bank customers to access the basic banking services, for example, cash deposit, cash withdrawal and bank balance inquiry conveniently or what would be termed as within the comfort of their neighborhood. The convenience of access to banking services and the extended hours that the agencies work has been the most attractive features to the customer (Ivatury & Lyman, 2006).

Banking agents are usually equipped with a combination of point-of-sale (POS) card reader, mobile phone, barcode scanner to scan bills for bill payment transactions, Personal Identification Number (PIN) pads, and sometimes personal computers (PCs) that connect with the bank's server using a personal dial-up or other data connection. Clients that transact at the agent use a magstripe bank card or their mobile phone to access their bank account or e-wallet respectively. Identification of customers is normally done through a PIN, but could also involve biometrics. With regard to the transaction verification, authorization, and settlement platform, banking agents are similar to any other remote bank channel (Jacob, 2005).

Local regulation determines if financial institutions are allowed to work through retail outlets. This include: what kind of, if any, financial institutions are permitted to contract banking agents, what products can be offered at the retail outlets, how financial institutions have to handle cash transport, Know Your Customer requirements, consumer protection, and other operational areas (Mas & Siedek, 2008).

Globally, retailers and post offices are increasingly utilized as important distribution channels for financial institutions. The points of service range from post offices in the Outback of Australia where clients from all banks can conduct their transactions, to rural France where the bank Credit Agricole uses corner stores to provide financial services, to small lottery outlets in Brazil at which clients can receive their social payments and access their bank accounts (Ivatury & Lyman, 2006). However, agency banking (known

as correspondence banking) can be traced to Brazil in 1999 exponentially growing from 1,600 agents in 2000 to 170,000 agents in 2010 (McKay, 2011). In United States, agency banking model is used by foreign banks to enter the market.

Owing to the successes of agency banking in Brazil, in Africa, agency banking is used to enhance greater performance across the continent. Agency banking was implemented in South Africa in 2005 after amendment of Bank Act giving banks green light to contract nonbank third parties to collect deposits, money due to the bank or applications for loans or advances, or to make payments to such clients on banks' behalf (Bold, 2011). In Ghana, agency banking was introduced in 2008 allowing for bank-based model of branchless banking using nonbank retail agents (McKay, 2011).

The Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalized in 1995 and exchange controls lifted. The banking sector comprised of the Central Bank of Kenya, as the regulatory authority, 45 banking institutions (44 commercial banks and 1 mortgage finance company), 5 Deposit-Taking Microfinance Institutions (DTMs) and 126 Forex Bureaus. Thirty two of the banking institutions are locally owned while 13 are foreign owned. Banks offering agency banking are: Equity Bank; Co-operative Bank (Co-op Kwa Jirani); KCB Bank; Post Bank; Family Bank (Pesa Pap); Chase Bank (Chase Popote); Consolidated Bank (Conso Maskani); Diamond Trust Bank; Citibank and NIC Bank (Kiragu, 2012).

Financial performance is the core of the Central Bank of Kenya's (CBK) reform agenda to support Kenya's development blueprint, Vision 2030; over 70% of Kenyans lack access to formal financial services. Agent banking is governed by the Prudential Guideline on Agent Banking issued by the CBK in May 2010. CBK has since granted approval to 10 banks for the rolling out of their agency networks. As at second quarter of 2012, there were 10 commercial banks that had contracted 12,054 active agents facilitating over 18.7 million transactions valued at Ksh. 93.1 billion (CBK, 2012).

2 Literature Review

Agency banking is underpinned by three theories: agency and financial intermediation theories. Agency theories look at the commercial bank as the principle and correspondent bank as the agent whereby problems arise owing to misunderstanding or incongruence of their interest. Intermediation places financial institutions (banks and their agents) as intermediating between money and the market or households. Resource (money) allocation based on perfect and complete markets is hindered by frictions such as transaction costs and asymmetric information.

The structural approach usually relies on the economics of cost minimization or profit maximization, where the performance equation denotes a cost function or a profit function. Occasionally, the structural performance equation denotes a production function. While estimating a production function might tell us if the firm is technically efficient, i.e., if managers organize production so that the firm maximizes the amount of output produced with a given amount of inputs (so that the firm is operating on its production frontier), we are more interested in economic efficiency, i.e., whether the firm is correctly responding to relative prices in choosing its inputs and outputs, which subsumes technical efficiency.

Agency Theory: Agency theory analyzes the relationships between a business firm's owners and its managers who, under law, are agents for the owners. The key issues in agency theory center upon whether adequate market mechanisms exist that compel managers to act in ways that maximize the utility of a firm's owners where ownership and control are separated. Under the terms of agency theory, a principal (P) passes on authority to an agent (A) to conduct transactions and make decisions on behalf of the principal in an effort to maximize P's utility preferences. Agency problems can arise if: P and A have different goals; P and A have disparate skills in evaluating A's performance; P and A possess different sets of information relevant to the managerial decisions A must make as a representative of P; or P and A have different degrees of risk aversion. At the core of agency problems is the fact that principals may not be able to monitor agents, either perfectly or costless, as to the agent's actions or the information behind those actions.

Agency problems emerge because contracts between principals and their agents are neither costless written nor costless enforced. Managers, as agents of a firm's shareholders, may not devote their best efforts toward managing the firm unless those efforts are consonant with maximizing their own welfare. In the commercial banking industry, ownership is becoming increasingly diversified among individual and institutional shareholders, and the dominance of individual stockholders in the industry appears, on the whole, to be decreasing. These trends may exacerbate "agency problems" in the banking industry if these problems truly exist.

In commercial banking, agency problems may arise from three principal sources: partial ownership of a banking firm by individuals who are both owners and managers and who, therefore, may behave differently than utility-maximizing owners alone; the presence of government-sponsored deposit insurance programs that do not differentially price insurance coverage to reflect the risk exposure of each banking firm and that can elect to delay recognition of a bankruptcy, creating a moral hazard because management and stockholders can pursue high-risk investments in an attempt to transfer wealth from depositors to shareholders; and, the existence of informational asymmetry where owners and managers do not share the same information.

Williamson (1981) argues that a utility-maximizing manager may be prone to expense-preference behavior that results in operating expenses and capital outlays carried beyond the profit-maximizing level. However, limits on managerial discretion exist that may force long-run conformity to owners' interests, including labor market constraints (such as the job mobility of existing management, as noted by Fama (1970) and capital market constraints (such as the threat of corporate takeovers).

Agent banks are retail establishments contracted by the banks and authorized by the central banks to render services for banks. They use technology and business arrangements with retailers, such as supermarkets, grocery stores, drugstores, gas stations, the postal company, and the lottery outlet chain. Agency banking offer services including savings deposits, credit withdrawals, bill payments, new account openings, money transfers, insurance, and government benefits including pension receipts to provide access to financial services people active in informal economy. However, the new channel represented by agency banking is expanding significantly, in their many ways of composition with the retailers, lottery outlets, post office agencies, register offices, retail store chains, etc. They are truly extensions of banking services installed in their partners' infrastructure

Intermediation Theory: In the traditional Arrow Debreu model of resource allocation, and households interact through markets and financial intermediaries play no role. When markets are perfect and complete, the allocation of resources is Pareto efficient and there is no scope for intermediaries to improve welfare. Moreover, the Modigliani Miller theorem applied in this context asserts that financial structure does not matter: households can construct portfolios which offset any position taken by an intermediary and intermediation cannot create value (Fama, 1980 and McDonald, 2011).

A traditional criticism of this standard market-based theory is that a large number of securities are needed for it to hold except in special cases. However, the development of continuous time techniques for option pricing models and the extension of these ideas to general equilibrium theory have negated this. Dynamic trading strategies allow markets to be effectively complete even though a limited number of securities exist. Such an extreme view that financial markets allow an efficient allocation and intermediaries have no role to play is clearly at odds with what is observed in practice.

Historically, banks and insurance companies have played a central role. This appears to be true in virtually all economies except emerging economies which are at a very early stage. Even here, however, the development of intermediaries tends to lead the development of financial markets themselves (McKinnon, 1973). In short, banks have existed since ancient times, taking deposits from households and making loans to economic agents requiring capital. Insurance, and in particular marine insurance, also has a very long history. In contrast, financial markets have only been important recently, and then only in a few countries, primarily the UK and the US. Even there, banks and insurance companies have played a major role in the transformation of savings from the household sector into investments in real assets. Roles played by these intermediaries in the financial sector is found in the many and varied models in the area known as intermediation theory. These theories of intermediation have been built on the models of resource allocation based on perfect and complete markets by suggesting that it is frictions such as transaction costs and asymmetric information that are important in understanding intermediation. Gurley and Shaw (1960) and many subsequent authors have stressed the role of transaction costs. For example, fixed costs of asset evaluation mean that intermediaries have an advantage over individuals because they allow such costs to be shared. Similarly, trading costs mean that intermediaries can more easily be diversified than individuals.

Looking for frictions that relate more to investors' information sets, numerous authors have stressed the role of asymmetric information as an alternative rationalization for the importance of intermediaries. One of the earliest and most cited papers, Leland and Pyle (1977), suggests that an intermediary can signal its informed status by investing its wealth in assets about which it has special knowledge. In another important paper, Diamond (1984) has argued that intermediaries overcome asymmetric information problems by acting as "delegated monitors." Bhattacharya and Thakor (1993) have provided an excellent survey of the current state of the literature on banking, building on an earlier review of the banking literature. The traditional view of the role and functions performed by intermediaries with the evolution of these institutions over the last few decades. It is an attempt to confront the literature with a view of the practice to see if the literature adequately addresses the reasons that these institutions exist in the financial markets, and how they perform value added activity.

To understand how physical coverage translates into improved usage and how particular banking models can impact financial intermediation and financial performance, by extension, it is important to consider the issue of the non-exclusivity of agents. Non-

exclusivity improves outreach by allowing agents to represent more than one financial institution, in effect allowing them to serve more customers. Non-exclusivity of agents is especially important in rural areas where bank branch coverage is minimal and qualified agents are also scarce. In rural areas, an agent will often be the only banking outlet available to the local population. It is critical that these agents are allowed to serve as much of the local population as possible, which would mean representing multiple financial institutions, from mainstream commercial banks to state-run development banks that cater to the needs of low-income populations.

Mobile Banking Business Models: A wide spectrum of agency banking models, which operate like branchless banking, is evolving. However, no matter what business model, if agency banking is being used to attract low-income populations in often rural locations, the business model depends on banking agents, i.e. retail or postal outlets that process financial transactions on behalf banks. The banking agent is an important part of the branchless banking business model since customer care, service quality, and cash management depend on them. These models differ primarily on the question that who establishes the relationship (account opening, deposit taking, lending etc.) to the end customer, the Bank or the Non-Bank. Another difference lies in the nature of agency agreement between bank and the Non-Bank. Models of branchless banking can be classified into three broad categories - Bank Focused, Bank-Led and Nonbank-Led.

Bank-Focused Model: The bank-focused model emerges when a traditional bank uses non-traditional low-cost delivery channels to provide banking services to its existing customers. Examples range from use of automatic teller machines (ATMs) to internet banking or mobile phone banking to provide certain limited banking services to banks' customers. This model is additive in nature and may be seen as a modest extension of conventional branch-based banking.

Bank-Led Model: The bank-led model offers a distinct alternative to conventional branch-based banking in that customer conducts financial transactions at a whole range of retail agents (or through mobile phone) instead of at bank branches or through bank employees. This model promises the potential to substantially increase the financial services outreach by using a different delivery channel (retailers/ mobile phones), a different trade partner (telco / chain store) having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank-based alternatives. The bank-led model may be implemented by using correspondent arrangements. In this model customer account relationship rests with the bank

Non-Bank-Led Model: The non-bank-led model is where a bank does not come into the picture (except possibly as a safe-keeper of surplus funds) and the non-bank (e.g. telco) performs all the functions.

Branchless banking may be based on many configurations between banks and business partners. However, the most successful experiences of the last decade rely on infrastructure that connects a diverse group of actors involved in the network arrangement designed to deliver financial services outside regular bank channels. Mas (2009) note that three main elements typically compose the network: retail stores easily accessible by low-income clients; an electronic payment infrastructure; and, an account platform. The latter is provided mostly by traditional banks. Account platforms necessarily operated internally within banks. Retail establishments, in contrast, are obviously outside agents, acting as intermediaries between the institution and its customers. The payment infrastructure may either be operated internally by the bank or supplied by third parties.

There are two main approaches for ICT-based branch less banking, one of them related to mobile phone networks and the other one to points-of-service (POS) or personal computers (PC) terminals (Prochaska and Brix, 2008). The first approach tends to be dominant where bank penetration is very low and client interaction with the network is driven by mobile phone use and so controlled by telecom firms. These experiences related to mobile phone projects tend to be more common in Africa and Asia.

Agency banking networks can be seen as technological innovation from a supply-side perspective. Each correspondent network provides a flexible and low-cost technological infrastructure to ensure access of microfinance services in a more cost-effective way than other alternatives. From a demand-side perspective, agency networks represent a social achievement, a social innovation, giving the poor easier access to essential banking services, even in remote locations where traditional banks branches usually do not reach. Finally, agency networks can also be an adaptive innovation, but here we need more knowledge about what adaptations are necessary regarding the integration microcredit-correspondents in order to increase their scale and transferability to other contexts.

Agency banks networks have dramatically increased bank outreach and proved an attractive way for banks to reach the populace that was previously bankless (Soares and Melo Sobrinho, 2007). This use of ICT significantly reduces the costs and increases the reach of banking, making correspondents an attractive vehicle for the underserved low income population (Kumar, 2005).

Bank Performance Indicators: Profit is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does not mean that commercial banks have no other goals. Commercial banks could also have additional social and economic goals. However, the intention of this study is related to the first objective, profitability. To measure the profitability of commercial banks there are variety of ratios used of which Return on Asset, Return on Equity and Net Interest Margin are the major ones (Murthy & Sree, 2003 and Alexandru et al., 2008).

Return on Equity (ROE): ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. A business that has a high return on equity is more likely to be one that is capable of generating cash internally. Thus, the higher the ROE the better the company is in terms of profit generation. It is further explained by Khrawish (2011) that ROE is the ratio of Net Income after Taxes divided by Total Equity Capital. It represents the rate of return earned on the funds invested in the bank by its stockholders. ROE reflects how effectively a bank management is using shareholders' funds. Thus, it can be deduced from the above statement that the better the ROE the more effective the management in utilizing the shareholders capital.

Return on Asset (ROA): ROA is also another major ratio that indicates the profitability of a bank. It is a ratio of Income to its total asset (Khrawish, 2011). It measures the ability of the bank management to generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010), state that a higher ROA shows that the company is more efficient in using its resources.

Net Interest Margin (NIM): NIM is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example, deposits), relative to the amount of their (interest earning) assets. It is usually expressed as a percentage of what the financial institution earns on loans in a specific time period and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income in that time period (the average earning assets). The NIM variable is defined as the net interest income divided by total earnings assets (Gul, Faiza & Khalid, 2011).

Net interest margin measures the gap between the interest income the bank receives on loans and securities and interest cost of its borrowed funds. It reflects the cost of bank intermediation services and the efficiency of the bank. The higher the net interest margin, the higher the bank's profit and the more stable the bank is. Thus, it is one of the key measures of bank profitability. However, a higher net interest margin could reflect riskier lending practices associated with substantial loan loss provisions (Khravish, 2011).

This is an agent that is often managed by a telecom, uses a cell phone to identify entrepreneurs, and provides store-of-value accounts called bank wallets that are backed by bank deposits. Entrepreneurs can use bank wallets to send, receive, and store electronic monetary value. For this analysis, agency banking is a store of value account that provides a useful comparison for a savings account directly provided by a financial institution. Bank-provided account linked to a bank wallet. This is a bank account that is linked to a bank wallet. The bank does not manage the agent and pays a fee to the telecom for deposits and withdrawals.

Kitaka (2001) indicates that the cost and revenue estimation is done on a per account basis for transactional accounts, commitment savings accounts, reverse commitment accounts, and time deposits. It focuses on the costs and revenues incurred by the financial agent bank associated with account opening, financial margin, and transactions for low-cost accounts. The revenue assumptions are based on a view that financial agent banks can and should charge for withdrawals and transfers through agent channels. Although some institutions in the sample do not, we contend that this may be counterproductive when reaching new low-income markets where entrepreneurs have a higher willingness to pay for nearby transaction services and where the financial margin earned on lower-balance accounts was insufficient to cover the cost of maintaining that account. We envision that clients will transact more with greater proximity to agents.

3 Problem of Research

Financial performance analysis of commercial banks has been of great interest to academic research since the Great Depression in the 1940's. Bala and Cook (2003) identified five types of financial performance measures: liquidity, solvency, profitability, financial efficiency and repayment capacity. Tarawneh (2006) found that the bank with higher total capital, deposits, credits, or total assets does not always mean that has better profitability performance. Financial performance of the banks was strongly and positively influenced by the operational efficiency and asset management, in addition to the bank size.

Some of the benefits that commercial banks gain from agency banking are: huge savings on cost of construction of bank premises and leasing costs when banks are using the Agency premises; human resource expenses have reduced as banks do not have to employ

new staff to manage the agency and the cost of training if any is to the bare minimum; savings on equipment like furniture and computers (Kumar, Nair, Parsons & Urdapilleta, 2006). Besides, financial performance results in a deepening of the market and creates economies of scale. It assists in bringing the cost of financial services down and allows for greater financial sector development. Besides, agent banking systems are up to three times cheaper to operate than branches; that is, banks' reduced need to invest in new infrastructure and lower acquisition costs for mobile-enabled agents and mobile wallets. In addition to reaching the unbanked masses, the agency banks are also increasing employment opportunities across the country.

However, Ivatury and Lyman (2006) pointed at challenges facing agency banks such as loss of confidentiality of customer information; location of the agents in high risk areas poses security threat; poor customer service to the bank customer as the agents are not well trained; and, susceptibility of the agents to fraudulent transactions.

Currently, there is a vivid relationship between agency banking and financial performance. Banking agents help financial institutions to divert existing entrepreneurs from crowded branches providing a "complementary", often more convenient channel of accessing bank services. Financial institutions, in developing markets, reach an "additional" client segment or geography. Reaching poor clients in rural areas is often prohibitively expensive for financial institutions since transaction numbers and volumes do not cover the cost of a branch (Kitaka, 2001).

Mwangi (2011) evaluated the role of agency banking in the performance of commercial banks in Kenya. The study was done on four banks offering agency banking services using questionnaires distributed to the banks' branch managers. The study established that infrastructure cost and security influence the performance of commercial banks attributable to agency banking to a very great extent. The study recommends that agency banking should be given more attention on security measures including risk-based approach and that the banks should find better ways of screening their agents to ensure that the large cash transactions handling is effectively carried out on their behalf; secure operating systems capable of carrying out real time transactions, generating an audit trail, and protecting data confidentiality and integrity.

Kamau (2012) studied the relationship between agency banking and financial performance of the banks in Kenya. Through review of secondary data, the study found that agency banking outlets were 9,748 active agents in 2011 from 8,809 in 2010 facilitating a total volume of 8.7 million transactions valued at KSh 43.6 billion. Using regression analysis, the study negative and weak correlation between number of agents, deposit and withdrawals transactions undertaken through agents and financial performance of banks as measured by return on equity.

Kithuka (2012) sought to establish the factors influencing growth of agency banking in Kenya. The study sampled 100 Equity Bank agencies doing bank focused, bank led and non-bank led transactions in Kwale County. The study established that convenience of the money transfer technology plus its accessibility, cost, support and security influence the use of agency banking. Waithanji (2012) sought to establish effect of agent banking as a financial deepening initiative in Kenya. Descriptive statistics were used for the analysis. The findings revealed lack of connection between agent banking and financial deepening. Waithanji noted that the relationship could not be conclusively determined due to the low number of banks that have implemented it and impact may become clearer once all banks adopt agency banking.

Kirimi (2011) studied the extent of implementation of agency banking among commercial banks in Kenya. The study established that there is difficulty in enforcing appropriate oversight by the agent and customer interaction was inconsistent with overall banking regulatory framework. The findings revealed need for regular training of agents on changes in operational processes and policies in order to eradicate occurrence of error and mistakes that obstruct penetration of agency banking in Kenya thus enhance banks' financial performance.

Keen to take advantage of the cost-saving and accessibility brought about by the agency banking model, Kenyan financial institutions have over the last one year embarked on an aggressive entry into this segment. However, how this model has contributed to the performance of these banks in Kenya is yet to be documented. The gap this study seek to fill is therefore to evaluate the effect of agency banking in the performance of commercial banks in Kenya.

In such environments banking agents that piggy back on existing retail infrastructure and lower set up and running cost can play a vital role in offering many low income people their first time access to a range of financial services. Also, low income clients often feel more comfortable banking at their local store than walking into a marble branch(Adiera, 1995) Banking agents are the backbone of money banking since they perform transactions over a bank device, to enable clients to convert cash into electronic money and vice versa. Money can be sent over their banking agent, clients will have to visit a branch, or banking agent. Especially in remote and rural locations, where cash is still the most important way to pay and transact, a banking service is dependent on banking agents to enable clients to effectively use the service, (Podpiera, 2008)

4 Research Focus

Keen to take advantage of the cost-saving and accessibility brought about by the agency banking model, Kenyan financial institutions have embarked on an aggressive entry into agency banking segment. However, how this model has contributed to the performance of these banks in Kenya is yet to be fully documented. Kumar, Nair, Parsons and Urdapilleta (2006) states that agency banking allows banks to serve more clients at lower cost, increases reach into areas where a full branch would not be cost-justified, and allows clients to access their accounts more frequently and manage their loan funds more easily thus leading to increased revenue. Beck, Cull, Fuchs and Getenga (2010) avers that due to low cost agency banking has increased the ease of banks' expansion hence outreach to remote areas consequently increasing revenue and profit.

According to Dondo (2003), agency banking is not new in the world. It has been used very well in Latin America and Asia. There are few African countries that have taken up agency banking. The agency banking in Kenya guidelines were enacted in 2010. Banks must first apply to central bank of Kenya to get approval to conduct agency banking business. The board of directors of each banking institution interested in agency banking must make policies guidelines and procedures to be followed to ensure that: one of the primary impediments to providing financial services to the poor through branches and other bank-based delivery channels is the high costs inherent in these traditional banking methods. The amount of money expended by financial agent banks to serve a poor customer with a small balance and conducting small transactions is simply too great to make such accounts viable (Adera, 1995).

In addition, when financial agent banks do not have branches that are close to the customer, the customer is less likely to use and transact with their service. However, the emergence of new delivery models as a way to drastically change the economics of banking the poor. By using retail points as agent banking other providers can offer saving services in a commercially viable way by reducing fixed costs and encouraging entrepreneurs to use the service more often, thereby providing access to additional revenue sources.

Podpiera (2008) argues that agent banking does improve the economics for these institutions compared with branches, especially for high-transaction, low-balance accounts that are common among poor users. The analysis focuses on four types of agent banking delivery channels: POS-enabled bank agent; this is an agent managed by a bank that uses a payment card to identify entrepreneurs. Banking agent-enabled agent – This is an agent managed by a bank that uses a cell phone to identify entrepreneurs.

However, research findings on effect of agency banking on banks' financial performance have been mixed. Lozano and Mandrile (2010) aver that agency banking has helped banks enhanced value chain and performance through economies scale and performance of the poor. Ivatury and Mas (2008) established that agency banking leads to cost minimization by reducing maintenance cost of banks fixed assets such as buildings and cost of service delivery. Kumar, Nair, Parsons and Urdapilleta (2006) state that agency banking enhances banks turnover by making banking services available to the vast but higher risk populace through friendly format or medium. On the other hand, Kamau (2012) established a low and negative impact of agency banking on financial performance. Pickens stated that agency banks have not contributed much to banks' revenue growth owing to customers' skepticism about its transactional security. Further, system failure and conservatism among customers who prefer brick-and-mortar model makes the model ineffective (Pickens, 2010).

Despite the growth of agency banking in Kenya, research into the field remains scanty. Kamau (2012) undertook a study on the relationship between agency banking and financial performance of banks in Kenya and established negative and weak correlation between the two. Mwangi (2012) sought to establish role of agency banking in the performance of commercial banks in Kenya and established that cost effectiveness (infrastructure, human resource and security cost) associated with agency banks positively influence banks financial performance. Kithuka (2012) studied factors influencing growth of agency banking in Kenya and established that convenience of its technology, accessibility and cost has influenced its use. However, these studies were conducted on at most 4 banks that had implemented agency banking and as such the findings might be outdated and false reflection of the current state since 10 banks have implemented agency banking.

In noting limitations of her study, Waithanji (2012) stated that relationship between agency banking and financial deepening could not be conclusively determined due to the low number of banks that have implemented it and impact may become clearer once all banks adopt agency banking. This study will select all the 10 banks that had implemented agency banking to fill-in the inconclusiveness of the previous findings and knowledge gap, thereof.

Three models have been used to shape agency banking: bank focused, bank-led and nonbank-led model. In bank focused model, bank uses non-traditional low-cost delivery channels to provide banking services to its existing customers such as ATMs. In bank-led model, customer conducts financial transactions at a whole range of retail agents (or

through mobile phone) instead of at bank branches or through bank employees. In non-bank-led model, bank does not come into the picture and the non-bank (retail stores) performs all the functions. Previous studies mainly in developed countries shows the essence of agency banking to an economy, despite this very few empirical studies that has been undertaken in Kenya to establish effect of agency banking and financial performance. Therefore, there is a gap of information; it is upon this basis that this study is based. The study sought to investigate the effect of agency banking on financial performance of commercial banks in Kenya

5 Methodology of Research

5.1 General Background of Research

This section presents the methods that were used in collecting and analyzing the data which enables the study reach its objectives. The chapter is outlined into research design, target population, data collection and data analysis technique. This research used the descriptive design method using secondary data gathered from the commercial banks in Kenya that had adopted agency banking in Kenya. Descriptive design is the most appropriate and was selected to enable the study test the relationship between agency banking and financial performance of banks.

5.2 Sample of Research

The population of the study was commercial banks in Kenya that had adopted agency banking. By the end of 2012, 10 banks had adopted agency banking with over 12,054 agents: Equity Bank; Co-operative Bank (Co-op Kwa Jirani); KCB Bank; Post Bank; Family Bank (Pesa Pap); Chase Bank (Chase Popote); Consolidated Bank (Conso Maskani); Diamond Trust Bank; Citibank and NIC Bank.

5.3 Instrument and Procedures

Secondary data sources were used for the study. Annual reports on individual banks' financial performance were used to extract financial performance indicators. CBK's annual report and supervisory reports was also used to establish the number of agents registered and the total transactional value conducted through the agents. The variable of interests were: the cash withdrawal and deposit transactions done through agents; number of active agents; return on assets (ROA) to measure profitability; cost to income ratio (to measure cost efficiency in using agency banks); and, staff cost to revenue ratio to measure the reduction of human resource cost due to agency banking. The data will be collected for the three-year period: 2010 to 2012.

5.4 Data Analysis

Multiple linear regression analysis as a multivariate technique was used to establish the relationship between agency banking and financial performance. This consisted with Kamau's (2012) model on the role of agency banking on performance. The model was:

$$FIN = \beta_0 + \beta_1 N + \beta_2 W + \beta_3 D + \varepsilon$$

Where FIN represents financial performance (measured by ROA, cost to income ratio and staff cost to revenue ratio); β_0 will be the regression constant; $\beta_1 - \beta_3$ are regression coefficients; N is number of active agents; W is the cash withdrawal transactions done through agents; D is the cash deposit transactions done through agents; and, ε regression model's error term. Pearson correlation coefficients was used to test the relationship between agency banking variables (independent variables) and financial performance (ROA, cost to income ratio and staff cost to revenue ratio). These inferential tests were conducted at 95% confidence level.

6 Main Results

In this section, the study provides two types of data analysis; namely descriptive analysis and inferential analysis. The descriptive analysis helps the study to describe the relevant aspects of the phenomena under consideration and provide detailed information about each relevant variable. For the inferential analysis, the study used the Pearson correlation, the panel data regression analysis and the t-test statistics. While the Pearson correlation measures the degree of association between variables under consideration, the regression estimates the relationship between agency banking and financial performance in commercial banks. Furthermore, in examining if the agency banking of banks is significantly different from that of financial performance, the Chi-Square Test statistics was used.

6.1 Evaluation of Commercial Banks Agency Banking 2010-2012 (Financial Performance)

From the findings Equity Bank registered highest (6,000) number of agents as per the year 2011, followed by Co-operative Bank, Kenya Commercial Bank and Post Bank as indicated by 4,000, 2,000 and 1,000 respectively. Further the study indicates that equity bank registered the highest number of transactions per agent, followed by co-operative bank and Kenya commercial bank as indicated by 6790, 5090 and 3600 respectively. This implies that banks have continuously performed significantly in agency banking leading to improved financial performance. However, as far as ECO Bank and family bank registered 1000 and 100 respectively, none was in operational.

Results of research, results of research, results of research, results of research, results of research, results of research, results of research. Table 1 shows the performance of agency banking as per number of agents, number of transactions per agent and volume of money flowing through the agents as per 2012.

Table 2: Performance of Agency Banking as per 2012

Name of the Bank	Number of Agents	Number of Transactions per agent	Volume of money flowing through the agents	ROA	Mean	Std Deviation
Kenya Commercial Bank	2,000	3600	7,200,000	42.7	2.667	0.4721
Equity bank	6,000	6790	40,740,000	50.4	1.9817	0.48034
Co-operative Bank of Kenya	4,000	5090	20,360,000	38.4	2.0628	0.08968
Family Bank	100	0	0	25.5	0	0
Diamond Trust bank	100	4299	429,900	25.9	3.1211	0.9043
ECO bank	1000	0	0	26.5	0	0
Post bank	1,000	1389	1,389,000	22.2	3.599	0.678
Total	53,677	21,426	209,430,845	41.2	2.505	0.4533

Source: computed by researcher using data extracted from annual reports of banks (2012)

The Findings in Table 2 indicates that out of a total of 43 banks, 8 have rolled out the agency banking service with Equity bank, Co-operative bank and Kenya Commercial Bank showing significance performance index as shown by the overall evaluation of 4.63, 4.16 and 3.98 respectively. However other banks that have rolled up the service (Family Bank, NIC Bank, Diamond Trust Bank, EcoBank and Post Bank) did not show much significance performance index. The findings further showed that yearly performance improved significantly from the year 2010 as shown by, 20% (2010), 30 % (2011) and 35 % (2012) respectively. This implies that agency banking is continuously improving leading to significance increased financial performance in those banks that have rolled up the service due to its convenience and efficiency in operation.

Table 3: Agency Banking 2010-2012 Financial Performance

	2010	2011	2012	Overall Index Evaluation
Kenya Commercial Bank	3.28	3.38	4.11	3.98
Equity bank	4.08	4.45	4.66	4.63
Co-operative Bank of Kenya	3.42	3.58	4.22	4.16
Family Bank	3.08	3.45	4.08	3.02
NIC Bank	2.08	2.45	3.08	3.63
Diamond Trust bank	2.08	2.45	3.08	3.64
ECO bank	2.11	2.16	2.22	2.18
Post bank	2.22	3.22	3.922	2.637
Yearly Performance	20%	30%	35%	100%

Source: computed by researcher using data extracted from annual reports of banks (2012)

6.2 Relationship between Agency Banking and Financial Performance

Under the advance analysis, correlation analysis was first used to measure the degree of association between different variables under consideration. While the regression analysis was used to determine the impact of the agency banking on financial performance of rolled up commercial banks, the Chi-square test statistics was used to ascertain whether there is a significant difference in the agency banking and financial performance. Finally, the t-test statistics was also used to find out if a significant difference occurred in the performance of banks with agency banking and those without agency banking.

The study measured the degree of association between the agency banking functions and financial performance i.e. if the agency banking services (number of agents, number of transactions per agent and volume of money flowing through the agents) will increase financial performance of commercial banks. From the a priori stated in the previous chapter, a positive relationship is expected between the measures of agency banking and financial performance. Table 3 and 4 presents the correlation coefficients for all the services considered in this study.

Table 4: Pearson's Correlation Coefficients Matrix for the Model (Financial Performance)

		Number of Agents	Number of Transactions per Agent	Volume of Money Flowing through the Agents	Financial Performance
Number of Agents	Pearson Correlation	1	-.681(**)	-.486(**)	.539(**)
	Sig. (2-tailed)		.000	.000	.000
	N	53,677	53,677	53,677	53,677
Number of Transactions per Agent	Pearson Correlation	.681(**)	1	.609(**)	.596(**)
	Sig. (2-tailed)	.000		.001	.000
	N	53,677	53,677	53,677	53,677
Volume of money flowing through the agents	Pearson Correlation	.486(**)	.409(**)	1	.525
	Sig. (2-tailed)	.000	.001		.076
	N	53,677	53,677	53,677	53,677
Financial performance	Pearson Correlation	.539(**)	.596(**)	.625	1
	Sig. (2-tailed)	.000	.000	.076	
	N	53,677	53,677	53,677	53,677

** Correlation is significant at the 0.01 level (2-tailed).

Source: computed by researcher using data extracted from annual reports of banks (2012)

From the correlation result for model, volume of money flowing through the agents has a strong positive correlation of 0.625 with financial performance which is significant at 1% and 5%. This implies that volume of money flowing through the agents have a positive effect on the level of financial performance in Kenyan banks due to increased profitability. Number of agents and the number of the transactions per agent also showed significant contribution to financial performance. The outcome from the statistics is consistent with earlier studies by Lipton and Lorsch (1992); Jensen (1993); Yermack (1996); Bennedsen et al (2006); Harris and Raviv (2005). They all argued that larger volume of transactions leads to improved financial performance.

Table 5: Chi-Square Test: Two-Sample Assuming Equal Variances Banks rolled Up Agency Banking Service and Banks Not Rolled up Agency Banking Service

	(Banks rolled up agency banking service)	(Banks not rolled up agency banking service)
Mean	0.062177643	0.023739
Variance	0.00233563	1.38085E-05
Observations	8	4
Hypothesized Mean Difference	0	
Df	7	
t Stat	2.958540189	
P(T<=t) one-tail	0.00554419	
t Critical one-tail	1.770933383	
P(T<=t) two-tail	0.01108838	
t Critical two-tail	2.160368652	
Mean	0.062177643	0.023739

Source: Computed by the researcher from annual reports banks (2012)

From the Chi-square results, the efficient rolled up agency banking banks recorded a mean of 0.0621 while the non-efficient banks recorded a mean of 0.0237. However, the variance for the efficient banks and the no-efficient banks are 0.0023 and 1.3808 respectively. Furthermore, at two-tailed, the t- calculated of 2.9585 is seen to be greater than the t-tabulated of 2.1603.

Further the study carried out the hypothesis testing between agency banking and financial performance. The study findings are as shown below.

Table 6: Agency Banking Vs Financial Performance

	Financial performance
Agency Banking Transaction Practices Pearson Correlation	0.980
Sig. (2-tailed)	0.000
N	8

A Pearson coefficient of 0.980 and p-value of 0.000 shows a strong, significant, positive relationship between agency banking and financial performance by the commercial banks rolled to agency banking in Kenya. Therefore, basing on these findings the study rejects the null hypothesis that there is no relationship between agency banking and financial

performance and accepts the alternative hypothesis that there exists a relationship between agency banking and financial performance.

6.3 Discussion of the Findings

The findings indicate that out of a total of 43 banks, 8 have rolled out the agency banking service with Equity Bank, Co-Operative Bank and Kenya Commercial Bank showing significance performance index. However other banks that have rolled up the service (Family Bank, NIC Bank, Diamond Trust bank, ECO bank and Post bank) did not show much significance performance index. The findings further showed that yearly performance improved significantly from 2008 to 2011. This implies that agency banking is continuously improving leading to significance increased financial performance in those banks that have rolled up the service due to its convenience and efficiency in operation.

From the findings Equity Bank registered the highest number of agents as per the year 2011, followed by Co-operative bank, Kenya Commercial Bank and Family Bank. Further, the study indicates that equity bank registered the highest number of transactions per agent, followed by co-operative bank and Kenya commercial bank respectively. This implies that banks have continuously performed significantly in agency banking leading to improved financial performance.

From the correlation result for model, volume of money flowing through the agents has a strong negative correlation of with financial performance. This implies that volume of money flowing through the agents have a positive effect on the level of financial performance in Kenyan banks due to increased profitability. Number of agents and the number of the transactions per agent also showed significant contribution to financial performance.

The study established that volume of money flowing through the agents has a strong positive correlation with financial performance. Number of agents registered by commercial banks had a moderately strong positive correlation with the banks' financial performance.

Number of transactions per agents of commercial banks had a moderately strong positive correlation with the banks' financial performance. This owes to the fact that high-transaction though with low-balance accounts are common among the poor which brings about economies of scale (Podpiera, 2008). Commercial banks have branches that are not close to the customer, thus, the customer is less likely to use and transact. Commercial banks penetration in Kenya is very low and client interaction with the network is driven by mobile phone use and so controlled by telecom firms. Besides, other bank-based delivery channels such as branches have high costs inherent in these traditional banking methods. Thus, agency banking is an apt model used in delivering services in remote place or areas where bank branches are not in existence (Soares and Melo Sobrinho, 2007).

The findings show that commercial banks that had rolled up agency banking were more effect based on the number of agent signed by the commercial bank. Commercial banks provide cash deposit and withdrawal, balance enquiry, collection of documents in relation to account opening, loan application, credit and debit card application, collection of debit and credit cards, cheque book request and collection for their customers through agency banking. However, on deposits and withdrawals, the amount transacted is restricted by the 'float' accorded to the agent. Thus, low volume transactions are conducted at the agency

banks. Security risky transactions like electronic fund transfer, disbursement of loans are rarely handled by agency banks.

The agents, given close supervision by the commercial banks, provide services consisted with what is in the service charter and CBK guideline. Thus, it was established that they mostly provide quality service to customers. Lyman, Ivatury and Staschen (2006) found that retail agents also handle all account opening procedures and identify and service loan customers. Generally, the study's findings indicate a strong, significant, positive relationship between agency banking and financial performance.

7 Conclusions

From the correlation result for model, volume of money flowing through the agents has a strong negative correlation of with financial performance. This implies that volume of money flowing through the agents have a positive effect on the level of financial performance in Kenyan banks due to increased profitability. Number of agents and the number of the transactions per agent also showed significant contribution to financial performance. They all argued that larger volume of transactions leads to improved financial performance. From the t-test result, the efficient rolled up agency banking banks recorded a higher mean while the non-efficient banks recorded a slightly lower mean. However, the variance for the efficient banks and the no-efficient banks also varied significantly.

From the findings above, it can be concluded that majority of the banks in the country have not embraced agency banking with only few 11 out of the 43 licensed and only 8 out of the licensed rolled up with the agency banking service. It can further be concluded from the findings that Equity Bank is the most performing commercial bank as far as agency banking is concerned followed by Cooperative Bank and Kenya Commercial Bank. Agency banking has positively and significantly influenced performance of commercial banks. Banking agents enable commercial banks to divert existing customers from crowded branches providing a "complementary", often more convenient channel. They use agents to reach an "additional" client segment or geography. Otherwise, reaching poor clients in rural areas is prohibitively expensive for banks since transaction numbers and volumes do not cover the cost of a branch. Banking agents that piggy back on existing retail infrastructure – and lower set up and running cost - play a vital role in offering many low-income people access to a range of financial services. Also, low-income clients often feel more comfortable banking at their local store than walking into a marble branch which increase the commercial banks' revenue. Agency banks also improves banks performance as it reduces huge savings on cost of construction of bank premises and leasing costs than when banks are using the Agency premises. It also cuts on human resource expenses. The banks do not have to employ new staff to manage the agency and the cost of training if any is to the bare minimum. It further, saves on equipment like furniture and computers. Additionally, the convenience of access to banking services and the extended hours that the banking agencies work is attractive features to the customer. This also helps increase banks' revenue will minimizing costs.

8 Recommendations and Implications

The study recommends that the government reduces the period of obtaining the legal documents in adopting agency banking. The government should support the program more often and reduce the high compliance costs, bureaucracy in registration and high cost of taxation. Other areas that the study recommends include the government dealing with the cumbersome laws and regulations, corruption and illegal permits and licenses. The study recommends that regulations be efficient to enable more banks to embrace agency banking service. The study further recommends that commercial banks should fully embrace agency banking through adoption of improved technology for information security to make it more reliable to the customers. This will increase volume of transactions which will lead to financial performance. Based on the findings and conclusions presented above, the study recommends that banks should cushion their agents from certain costs such as insurance costs, cash in-transit or premise setup costs. This will enhance performance of banking agents. Besides, capacity of agents banking in providing services can be enhanced by banks ensuring that agents have enough float that can serve more client in order to mitigate clients disappointment and increase the number of customers. They can do this by advancing credit to their agents. In addition, banks should educate and regulate their agents to ensure uniformity in service delivery so as to enhance customer confidence in agents. The study recommends that customers should be enlightened on the operation of agency banking in order to enhance their confidentiality. Additionally, the study recommended that agent to be frequently trained on the operation process and policies to eradicate occurrence of error and mistake that are highly hindering penetration of agency banking.

There is need for further research to be undertaken which may include studies on the factors affecting the financial performance of the agent banks; the role of the government or regulatory framework in supporting the adoption of agency banking and the impact of agency banking to the financial sector deepening or financial inclusion and other related studies. This would help establish effect of agency banking regulations on agents performance and answer the question: Does regulation (from banks and CBK) stifle agency banking or otherwise? It is further suggested that further research should be done on the challenges facing implementation of agency banking. Studies can also be conducted on the effectiveness of agency banking on banking outreach/penetration in Kenya. It is also recommended that, as roadmap to agency banking development in Kenya, further studies can be done on customer perception of agency banking so as to determine what affect banking agents' performance from the demand side. Moreover, studies can be done on the economic impact of agency banking model performance in Kenya.

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