



Banking Agency Adoption and its Effect on Banks Deposits of Commercial Banks in Kenya

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Abstract

Agency banking model has been successful in propelling financial inclusion in Kenya. Success stories have been reported in Kenya. Agency banking has contributed to increased access to banking services from 41.3% of the country's bankable population in 2009 to 79.6% in 2018. However, despite this achievement the financial performance of commercial banks in Kenya has been on a downward trend. Therefore, the overall objective of this study was to determine the effect of agency banking adoption on bank deposits in commercial banks in Kenya. The study was guided by the theory of financial intermediation. The study adopted an exploratory non-experimental research design. The study used secondary data and the nature of the data collected was quantitative. The data targeted 15 commercial banks that were licensed by Central Bank of Kenya to carry out agency banking as of December 2014, however one commercial bank (Chase bank) was put under receivership during the period of study and therefore it was excluded from the study. The data was collected from CBK banks supervision annual reports and from financial reports of the 14 commercial banks using a data collection worksheet and analyzed using descriptive and inferential statistics. The empirical model of the study was based on Event study. This study is expected to provide information on the effect of agency banking adoption on the financial performance of commercial banks in Kenya.

Key words

Banking Agency, Bank Deposits, Value of Deposits, Frequency of Deposits and Commercial Banks

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1. Introduction

An agency bank is an organization/association that demonstrates in some limit in the interest of a specific bank, in this manner can't acknowledge deposits or offer credits in its own name. It goes about as an operator for the parent bank (Marques *et al.*, 2013). It is a retail outlet shrunk by a monetary institution or a mobile system administrator to process customer's exchanges. As opposed to a branch teller, it is the proprietor or a worker of the retail outlet who leads the exchange and gives customers a chance to store, pull back, transfer reserves, pay their bills, ask about account balance, or get government benefits or an immediate deposit from their employers (Central Bank of Kenya, 2010).

1.1. The Global Perspective of Agency Banking Adoption and Financial Performance of Commercial Banks

Agency banking model started in South America explicitly in Mexico and Brazil. In Brazil, the model was first grasped in the mid-2000 as a major aspect of the government's financial inclusion policy (CBB,

2014). Agency banking administrations/services include: accepting loan applications, evaluating credit and individual data of advance applicants, collecting advance installments, getting account opening applications, performing account deposits and withdrawals, effecting bill installments and reserve exchanges (Dias and Mc Kee, 2010). In Brazil, by end of 2000, the all-out number of bank agents that were being utilized by banks had reached 64,000 (Marques *et al.*, 2013). In 2018 there were over 230,000 enrolled specialists/agents all through Brazil conveying money related administrations for the benefit of CBB-authorized and regulated institutions, including credit cooperatives (CBB, 2018). The expansion being used of agency banking prompted increment in money related openness/financial inclusion in Brazil from around 75 million customers with bank accounts in 2007 to roughly 123 million customers in 2018.

Agency banking model has not just conveyed financial inclusion to low-salary families in rustic regions that get government benefits and others getting essential bank administrations, for example, charge installments, however it has additionally filled in as a financial improvement instrument for confined networks. Rather than shopping in the urban communities where they would have gone to get their benefits, benefit beneficiaries pull back money, pay bills, and shop locally (CBB, 2014). Further, bank agents have been utilized by business banks for different reasons which incorporate; cost-cutting, banks have turned into the least expensive approach to lessen clog in Banking halls and evade the fines that are forced when clients are left sitting tight in line for in excess of a specific measure of time and broadening of the customer base through geographic extension (Dias and Mc Kee, 2010).

Caixa and Banco Postal, a joint corporation between Banco Bradesco (the second biggest private bank) and the postal administration, have the biggest agency systems. By December 2018, Banco Postal had opened in excess of 5 million new bank accounts since 2002 through more than 5,460 postal administration (CBB, 2018). Four of the biggest banks execute widely with agents. Notwithstanding, it isn't clear with respect to whether agency banking positively affects the monetary exhibition of commercial banks in Brazil. This is on the grounds that the Return on Assets (ROA) of commercial banks in Brazil has been on a descending pattern since agency banking was propelled in mid-2000. Further, the model has not yet been fruitful in accomplishing the objectives of guaranteeing 100 percent financial inclusion (Dias and Mc Kee, 2010). A few regular difficulties stay, for example, directing microcredit and investment funds. A couple of banks, strikingly ABN Amro and Banco Popular, are trying different strategies with microcredit through agents.

The aftereffects of the principle supplier (Banco Popular) so far have been poor, especially regarding default rates, and this could have prompted some commercial banks in Brazil not embracing agency banking (Dias and Mc Kee, 2010). Remarkably Banco Itau, the biggest private bank has not fused agents into their business technique since they see agency banking as corporate social obligation with restricted to-nonexistent business potential. Different banks chose to enter to organization with different banks, for example, Banco do Brasil went into an association with Lemon Bank in mid-2009 in which all Lemon Bank agents were to give benefits for the benefit of Banco do Brasil and its Banco Popular brand, utilized by Banco do Brasil for its low-salary showcase (CBB, 2014).

1.2. The Regional Perspective of Agency Banking Adoption and Financial Performance of Commercial Banks

South Africa has a well-created banking framework. By 2018 there were in excess of 80 commercial banks in South Africa with in excess of 5,443 bank agents, 21,535 automated teller machines (ATMs), and no less than 109,454 agency banking outlets (South African Reserve Bank, 2018). This is intensified by Post Bank's system of 2,300 outlets. The financial area is very thought inside the alleged 'big 4' commercial banks; ABSA Bank, First National Bank of South Africa (FNB), Ned Bank, and Standard Bank. Which, on the whole, have in excess of 90 percent of the financial market (Andrianaivo and Kpodar, 2011).

The nation has a generally high rate of access to monetary services contrasted with other sub-Saharan Africa nations. By 2018, 77 percent of South African grown-ups had accounts with commercial banks (Seddon *et al.*, 2018). Financial inclusion developed significantly from 2004, ascending from 46 percent to current 77 percent, to a great extent in view of agency banking activity which was propelled in 2004.

Agency banking made fundamental financial balances accessible to the unbanked, essentially by means of card-based records got to through agency bank outlets (Andrianaivo and Kpodar, 2011). Nonetheless, there is far to go for this model to show business reasonability. It isn't clear with respect to whether agency banking positively affects the financial exhibition of commercial banks in South Africa. There is a general descending pattern in financial execution of commercial banks since 2004 when agency banking was propelled, as appeared by a general decrease in ROA. Could this be ascribed to agency banking? Ongoing proof, recommends that most of these accounts might be torpid or are being utilized just to pull back subsidizes that are saved into them by the government or to just withdraw funds deposited by employers. A few banks don't advance agency banking since they see this model to be unfruitful (South African Reserve Bank, 2016).

1.3. Agency Banking in Kenya

In Kenya agency banking was formally propelled by Central Bank of Kenya (CBK) in 2010 as an execution of money related incorporation arrangement. The approach went for expanding money related administrations outreach; elevating financial incorporation to the un-banked and under-banked populace (CBK, 2010). As indicated by Fin Access 2013 family unit overview, directed by the Financial Sector Deepening Kenya (FSD-K) mutually with the Central Bank of Kenya, a huge rate 41.3% of the Kenyan populace did not approach money related administrations. Dominant part of these individuals, around 80% were found in rustic zones. Along these lines, the target of agency banking was to urge commercial banks to utilize bank agents in the arrangement of banking administrations to these remote country territories on the grounds that huge numbers of these uneducated clients have long-standing associations with neighborhood dealers. The approach additionally went for decreasing the expense of giving money related administrations by diminishing the set-up expense of bank offices and consequently improving financial execution of commercial banks in Kenya (CBK, 2010).

The utilization of agency banking model by commercial banks in Kenya however at a slower rate have kept on expanding since it was first propelled in 2010. By 2013, CBK had approved 13 commercial banks to offer agency banking administrations (Ndungu and Njeru, 2014). By December 2018 CBK had approved 18 commercial banks to offer agency banking administrations (CBK, 2018). Since 2010, an aggregate of 61,290 specialists/agents have been contracted encouraging over 462.3 million exchanges estimated at Ksh. 3.003 trillion. The expanded number and estimation of exchanges exhibit the expanded job of agency banking in advancing money related activities being advocated by the Central Bank of Kenya (CBK, 2018). An overview by Financial Sector Deepening Kenya (FSD-K) demonstrates that agency banking has altogether added access to banking administrations with 79.6% of nation's bankable populace getting to money related administrations as of 2018. The most noteworthy development in money related openness/inclusion was recorded somewhere in the range of 2010 and 2013, this is the period when the most noteworthy number of commercial banks grasped agency banking after it was propelled in 2010 by the Central Bank of Kenya.

Unmistakably some noteworthy advancement has been made in improving money related incorporation, however there is far to go for this model to show business feasibility. It isn't clear about whether this model of agency banking positively affects the financial exhibition of commercial banks in Kenya (Dias and Mc Kee, 2010). There is a general descending pattern in money related execution of commercial banks since 2010 when agency banking was propelled. This is reflected by a general descending pattern of ROA since 2010 to 2018.

Further, most banks are not profoundly energetic to fuse agency banking, around 57 percent of commercial banks in Kenya have not grasped this innovation since they for the most part see agency banking as a corporate social obligation with restricted to-nonexistent business potential. It isn't clear about whether a portion of the administrations offered by agency banking, for example, specialist bank client deposits, operator bank client withdrawals, operator bank bills payments and operator bank funds transfers have positive effect on the money related execution of commercial banks in Kenya. The absence of inspiration because of absence of adequate data on the impacts of agent relying upon monetary execution of commercial banks regularly implies deficient venture, absence of innovativeness, and vague pathways toward practical business tasks (Dias and Mc Kee, 2010).

1.4. Statement of the Problem

Agency banking model has been fruitful in pushing financial inclusion in developing nations. Examples of overcoming adversity on financial inclusion have been accounted for in Brazil and South Africa. In Kenya agency banking was formally propelled by Central Bank of Kenya in 2010 as an execution of a financial inclusion policy. The arrangement went for expanding financial administrations by elevating financial inclusion to the un-banked and under-banked populace that remained at 41.3% as at 2009. The arrangement likewise went for urging commercial banks to utilize operators/agents in the arrangement of banking administrations to build client base through banking the un-banked and under-banked populace. Lower the expense of giving money related administrations through decreased fixed set-up infrastructure costs, diminished financial segment compensations and subsequently improving their financial performance. The increase in financial performance would be reflected by an increase in banks deposits, banks withdrawals, funds transfers through banks, bills payments through banks, banks accounts opening, banks Return on Assets (ROA), Return on Equity (ROE) and a decrease in banks Cost to Income Ratio. By December 2018, 18 commercial banks (43%) had consolidated agency banking into their financial administrations, with an aggregate of 61,290 specialists/agents contracted engaging over 462.3 million exchanges estimated at Ksh. 3.003 trillion. Prominent of the arrangement was the expanded access to banking administrations with 79.6% of nation's populace getting to financial administrations by December 2018. Nonetheless, in spite of the various positive commitments credited to agency banking, the money related execution of commercial banks in Kenya has been on a descending pattern. Thusly, the objective for this study was to assess the effect of agency banking adoption on banks deposits. This will illuminate the management choices concerning whether agency banking administrations positively affect the financial performance of commercial banks in Kenya.

1.5. Research Objective

The fundamental objective of this research was to establish the effect of agency banking adoption on banks deposits in commercial banks in Kenya.

1.6. Research Hypothesis

H_0 : *Agency banking adoption has no significant effect on banks deposits in commercial banks in Kenya.*

1.7. Significance of the Study

This study is imperative to researchers/academicians, account administrators, policy creators in the national and local governments, the investors, senior officials of commercial banks and the clients. To the researchers/academicians the investigation will go far in adding to the body of information in the territory of agency banking reception and budgetary execution of commercial banks. Exact proof plainly demonstrates that experimental investigations concentrating on agency banking in Kenyan are as yet insufficient.

2. Literature review

2.1. Theory of Financial Intermediation

The theoretical foundation for this study was anchored on the Theory of financial intermediation. This theory was postulated by Douglas (1984). According to the theory, commercial banks and other financial intermediaries are the main sources of external funds to firms. Faure (2013) argues that financial intermediaries exist not only because of the divergence of requirements of lenders and borrowers, but for specialized services they provided such as insurance services for insurance companies, retirement fund products for retirement funds, investment products for unit trusts and overdraft and deposit facilities for banks. Financial intermediaries provided more than 50 percent of external funds in the period between 1970 and 1985 in the United States (Faure, 2013). Financial intermediation theory also argues that information asymmetry arises in the financial system and markets between borrowers and lenders because borrowers generally know more about their investment projects than lenders do (Claus and Grimes, 2003).

According to the theory, financial intermediaries act as middlemen hence leading to net cost savings for savers and demanders of funds. The model provides strong predictions about the contracts used by financial intermediaries and thus provides a setting to analyze important issues in banking policy. According to Brigham and Gapenski (1997) financial intermediaries do not only transfer money and securities between firms and savers- they also create new financial products. Brigham and Gapenski (1997) further argue that since the financial intermediaries are generally huge, they create economies of scale in analyzing the credit worthiness of potential borrowers, in processing and collection of loan facilities and in pooling of risk and thus helping individual savers diversify. In recent years, fundamental economic forces have affected the traditional role of banks in financial intermediation between borrowers and lenders. Edwards (1995) observed that as a source of funds for financial intermediaries, deposits have steadily declined in importance. In addition, the financial performance driven by traditional banking activities such as business lending has declined in recent years.

As a result, banks have increasingly changed their business models to new non-traditional financial activities in order to maintain their position as financial intermediaries. Brigham and Gapenski (1997) further observed that financial intermediaries have historically been heavily regulated. The primary purpose of this regulation is to ensure the safety of the institutions and thus to protect depositors. As argued by Ongore and Kusa (2013), for sustainable financial intermediation, banks need to be profitable. The Kenyan financial industry is one of the key contributors to GDP. According to Kenya National Bureau of Statistics (2015) financial intermediation and insurance activities contributed 7% of the total GDP in 2014. The role of banks remains central in financing economic activity in general and different market segments in particular.

A sound and profitable banking sector is better able to comfortably withstand negative shocks and contribute to the stability of the financial system (Athanasoglou *et al.*, 2008). Agency banking solutions are therefore being embraced by Kenyan commercial banks in order to improve financial inclusion and financial performance. This study is heavily anchored on the financial intermediation theory. The theory has been used to inform the independent variable under agency banking and dependent variable financial performance of commercial banks in Kenya. Agency banking has provided an avenue for banks to change their business models to new non-traditional financial activities in order to maintain their position as financial intermediaries. The theory also explains the importance of financial intermediation to financial inclusion and financial performance.

2.2. Agency Bank Customer Deposits and Financial Performance

Agency bank customer deposits are used as an indicator variable to show the value of cash deposits realized from customers through the agents engaged by commercial banks. In relation to competition for customer deposits, Haron and Azmi (2015) posit that the process of financial liberalization has intensified competition between financial institutions, thus forcing commercial banks to compete for deposits in various forms. First, banks are unconstrained in terms of deposit facilities they can offer. Thus, the range of products is much broader than what was previously available. Banking deposits are in various types. Haron and Azmi (2015) postulate that commercial banks offer three categories of deposit facilities; demand, savings and time deposits. Demand deposit facility is most commonly referred to as current account and is designed for those who need money for transaction purposes. This motive can be looked at from the point of view of consumers who want income to meet their household expenditure and from the viewpoint of businessmen who require money and want to hold it in order to carry out their business activities. Hence, the purpose of deposit facility is for convenience or for making daily commitments.

The second category of deposit is the savings account, which caters for the need of those who wish to save money but at the same time desire to earn an income. Depositors of savings account hold money because of precautionary motives while are simultaneously induced by their investment motives. Precautionary motive for holding money refers to the desire of people to hold cash balances for unforeseen contingencies. Others are bounded by the speculative motive for holding money.

The speculative motive relates to the desire to hold one's resources in liquid form in order to take advantage of market movements regarding the future changes in the rate of interest. The final category of deposit facility is time (fixed) deposits. Such facility is offered by banks to cater for the investment motives

of customers who normally have idle funds and are looking for better returns on their money (Kamau, 2011).

Studies have shown that there is a positive correlation between customer deposits and customer lending. According to Obamuyi (2013), banks all over the world, thrive on their ability to generate income through their lending activities. The lending activity is made possible only if the banks can mobilize enough funds from their customers. Since commercial banks depend on depositor's money as a source of funds, it means that there are some relationships between the ability of the banks to mobilize deposits and the amount of credit granted to the customers. Thus, the main function of financial institutions of mobilizing funds from the surplus economic agents to the deficit economic agents is put to test in order to generate economic growth. Commercial banks are institutions that engage in two distinct types of activities, one on each side of the balance sheet deposit-taking and lending. Commercial Banks deposits are dependent on depositor's money as a source of funds (Werner, 2014). Bank deposits represent the most significant components of the money supply used by the public, and changes in money growth are highly correlated with changes in the prices of goods and services in the economy (Mashamba *et al.*, 2014). The deposit itself is a liability owed by the bank to the depositor, and refers to this liability rather than to the actual funds that are deposited (Adem, 2015). Consumers deposit their money in banks as a safety measure, for ease of access and the possibility of returns, the motive is to keep the money in safety for future use.

Deposits provide most of the raw materials for bank loans and thus represent the ultimate source of the bank's profits and growth. Banks make profit by using their deposits; therefore, it is said that depositors can discipline banks (Gemedu, 2012). Commercial banks are critical to the development process. By granting loans in areas such as agriculture, manufacturing, services, construction and energy sectors, banks contribute to the development of the country. Bank loan portfolio including volume, tenor and structure may be generally influenced by their expectations of the performance of economy both in terms of stability and level of performance. As cited, banks make out more loans during periods of boom and reduced level of macroeconomic uncertainty and curtail lending when the economy is in recession (Churchill, 2014).

There is a positive correlation between bank deposits and financial performance. Since it's costly to build banking halls in every town, banks opted to increase their service provision through agents. These agents not only influence deposits but agency banking is also influenced by the level of deposits in a certain area. It is expected that banks expand their facilities and service provision by considering factors such as competition, deposit potential, regional income and existence to infrastructure. Thus, deposits can also be a factor to consider when in need of an agency banking expansion strategy. By creating greater access to financial services, agency banking has in turn increased the level of deposits for banks. Providing the un-banked access to safer and cheaper financial services has led to banks recording more deposits than ever before. Equity bank attributes two thirds of the income from agency banking as a result of deposits and the remainder on withdrawals (Bankelele, 2015).

Han and Melecky (2013) found that a broader access to and use of bank deposits can significantly mitigate bank growth slowdowns in times of financial stress. Where a large share of population still lacks access to bank deposits, trust in banks is yet to be firmly established, and the integration in global financial flows is growing. In addition to the access and use of deposits, bank stability and the dummy for the occurrence of banking crises are the most significant explanatory variables in our regressions. The results hold even when accounting for the possible leverage effects of outliers. The main message is that countries should recognize that policies to promote a broader use of bank deposits could improve resilience of bank funding. Such policies can thus enhance overall financial stability and complement the mainstream macro-prudential policies to foster stability of the financial system (Han and Melecky, 2013).

3. Methodology of research

This study adopted an exploratory non-experimental research design. The empirical model adopted was event study. The study employed quantitative secondary data. The data targeted 15 commercial banks that had adopted agency banking by December 2014, however one commercial bank (Chase bank) was put under receivership during the period of study and therefore it was excluded from the study. Data was derived from CBK banks supervision annual reports and from financial reports of the 14 commercial banks. A period of 8 financial years that is 4 financial years (16 quarters) before adoption of agency banking and 4

financial years (16 quarters) after adoption of agency banking were used to establish the effect of agency banking adoption on bank deposits. Means and variance of change in growth of value of bank deposits of each bank per financial quarter was measured before and after adoption of agency banking. Also, means and variance of change in growth of frequency of bank deposits of each bank per financial quarter was measured before and after adoption of agency banking.

The study considered adoption of agency banking as an event which occurred at a particular point in time. Event period covered the gap between agency banking adoption date and when agency banking was first captured in the financial statements of commercial banks. The study considered 16 quarters (4 financial years) before and after the event. This horizon is large enough to provide numbers for means and variance analysis for measurement of returns, but not too large to cause event overlap. The bank deposits can only be considered normal if continued in one particular direction i.e. upward or downward for a long period of time without fluctuations (Brown, 1980). Sign test was used to test the existence of the two hypothetical statements already established as null and alternative, which state that adoption of agency banking has or does not have an effect on bank deposits. This also determined the performance of commercial banks. The test is presented statistically as:

$$H_0: R_{11} = R_{12} \quad (1)$$

Where;

R_{11} is return for period before adoption of agency banking.

R_{12} is return for period after adoption of agency banking.

This research adopted two procedures in analyzing the data. The first part was to modernize the event study model to comparative event study model, so that the application of two sample t -test of means and variance, using descriptive statistics would be attainable. The second part was the required aggregation of the returns as applicable to sign test for hypothesis testing on supportive as well as independent using 95% level of significance to determine the acceptability of any result above 0.05% and rejection of any result below 0.05% as statistically presented below:

$$H_0: \delta_{11}^1 = \delta_{12}^2 \quad (2)$$

$$H_{a1}: \delta_{11}^1 > \delta_{12}^2 \quad (3)$$

$$H_{a2}: \delta_{11}^1 < \delta_{12}^2 \quad (4)$$

Where;

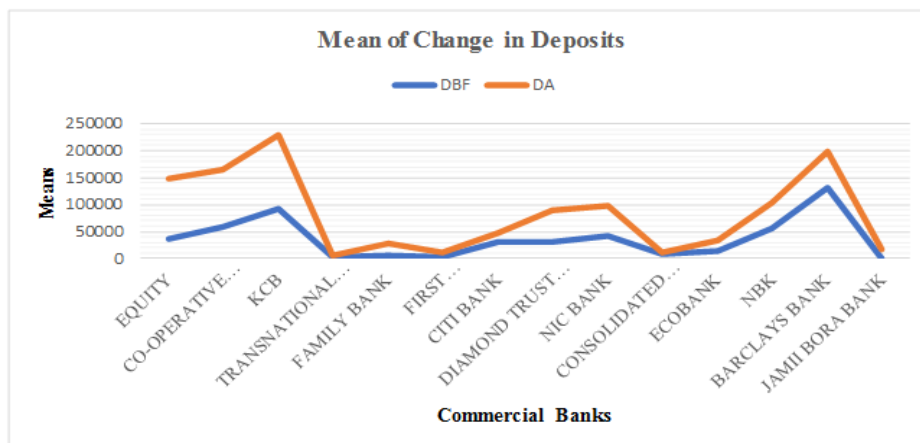
δ_{11}^1 is variance before the adoption of agency banking.

δ_{12}^2 is variance after the adoption of agency banking.

3.1. Effect of Agency Banking Adoption on Banks Deposits

The objective of the study sought to establish the effect of agency banking adoption on banks deposits. The means of change for 16 financial quarters before the adoption and the means of change after adoption were computed and presented in figure 1.

Figure 1. Mean of change in deposits before and after adoption of agency banking



Results in figure 1 show that generally there was improvement in the mean of change in deposits for the 14 commercial banks. Equity bank, KCB and Barclays bank had the highest mean of change in deposits after the adoption. It is also noted that Transnational bank, First community bank and Consolidated bank showed the least mean of change in deposits after the adoption. This performance might not be linked to the years of adoption of the agency banking given that Barclays bank adopted in 2014 yet its performance was very high, Transnational bank adopted in 2010 but its performance was still very low. This implies that adoption of agency banking has had an effect on the financial performance of commercial banks in terms of customer deposits. This is consistent with the findings of Gitau (2014) that yearly operational performance for most commercial banks under study improved significantly from 2008 to 2012. The improvement could be associated with agency banking which has improved operational performance of commercial banks. Similarly, the findings reflect Ndirangu (2013) argument that through agency banking commercial banks in Mexico’s Banco Azteca were able to grow their deposits by 8 billion deposits in five years. Further the results are in consonance with the findings of Mutua (2013) that the increase in the volume of deposits through agency banking was as a result of facilitated accessibility of banking services to most customers in Kenya. This indicates that the results are consistent with other studies in the line of agency banking.

3.1.1. Paired Samples Statistics

There was generally high difference between the change in deposits after and change in deposits before the adoption of agency banking for all the 14 commercial banks combined 84182.73 and 36822.52 respectively as shown on table 1.

Table 1. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Change in Deposit After	84182.7313	14	74942.0701	20029.1107
Change in Deposit Before	36822.5233	14	38184.9508	10205.3573

The results in table 1 confirm that adoption of agency banking has had an effect on the amount of deposits by customers for all the banks that have already adopted agency banking. These results are consistent with the findings of Njagi (2014) that accessibility to financial services by customers has played a major role in enhancing deposits and hence financial performance of commercial banks in Kenya.

3.1.2. Paired Samples Test

To determine whether the difference in the mean of change was just by chance or it can be statistically explained, the paired t- test was computed to establish the level of significance. For this study the effect was considered significant if the p – value was less than 0.05 and the t- statistic was more than +2 for a positive change or -2 for a negative change. The results are presented in Table 2.

Table 2. Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Change in Deposit After – Change in Deposit Before	47360.21	43516.05	11630.15	22234.79	72485.63	4.072	13	.001

The results in table 4.2 indicate that there was a statistically significant change in the mean of change in deposits before and after adoption of agency banking ($t = 4.072$; p – value 0.01), this implies that the change in the deposits in commercial banks is not by chance but it is as a result of agency banking. The findings are in consonance with the findings of Njagi (2013) that improving financial service accessibility by 1% is likely to improve financial performance by up to a factor of 15%. This indicates that agency banking has had a positive and significant effect on the financial performance of commercial banks in Kenya. The results are also in agreement with the findings of (Dias and Mc Kee, 2010) that through agency banking commercial banks in Mexico’s Banco Azteca were able to grow their deposits by 8 billion deposits in five years.

3.1.3. Frequency of Deposits

In regard to the frequency of deposits the study computed the mean of change in frequency of deposits for the period before and after the adoption of agency banking. The results were presented in figure 2.

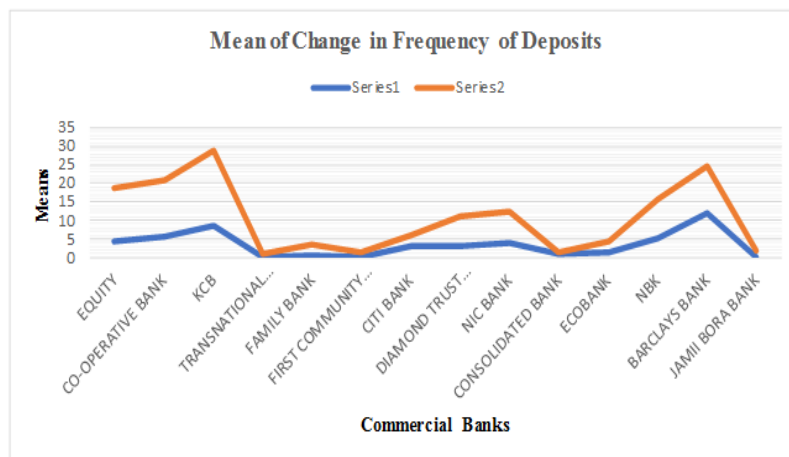


Figure 2. Mean of change of frequency of deposits before and after adoption of agency banking

The results in figure 2 show that there were more activities involving frequency of deposits from the customers for those banks that showed an improvement in deposits after the adoption of agency banking such as Equity bank, KCB, Co-operative bank and Barclays bank. Transnational bank, First community bank and Consolidated bank had the lowest mean change and also the frequency of deposits was also very low. This implies that the change in the deposits could be attributed to the change in the frequency of the deposits from the banks customers which could be attributed to convenience in the banking activities on the side of the customers. The results are in-consistent with the findings of Mawanza (2017) that the cost-effective agency banking networks, have enabled customer’s access banking services in kiosks around the country, particularly in remote, previously unbanked territories. The frequency of deposits has therefore been enhanced by agency banking which has enabled bank customers to access banking services from within the comfort of their neighborhood. Further the results are in agreement with the findings of Ndirangu (2014) that agency banking has made it easier for agents to collect deposits on behalf of the commercial banks. Similarly, CBK (2017) contended that the amount of Customer deposits between December 2016 and December 2017 increased by 10.75 percent from Kenya shillings 2.61 trillion to Kenya

shillings 2.90 trillion respectively. Besides other explanations it was noted that the growth in the deposits was supported by mobilization of deposits through agency banking.

3.1.4. Paired Samples Statistics

There was generally high difference between the mean of change in frequency of deposits after the adoption of agency banking than before the adoption of agency banking for all the 14 commercial banks combined 10.8317566 and 3.4089860 respectively as shown in table 3.

Table 3. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Change in Frequency of Deposits After	10.8317566	14	9.53825335	2.54920544
Change in Frequency of Deposits Before	3.4089860	14	3.47271961	.92812336

The result in table 3 shows that change in frequency of the deposits after was more than change in frequency before the adoption of agency banking. This could be attributed to the convenience that agency banking offers to the customers. These results are in consonance with the findings of Njagi (2014) that accessibility to financial services by customers has played a major role in enhancing frequency of deposits and hence value of customer deposits. According to these findings, it is noted that most commercial banks recorded increased change in deposits a fact that has been attributed to agency banking. Agency banking has made it easier for customers to access banking services.

3.1.5. Paired Samples Test

The paired t-test was conducted to assess whether the difference in the change of frequency in deposits due to agency banking adoption was statistically significant or by chance. The results were tested at a p- value of 0.05 and presented in table 4.

Table 4. Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Df	Sig.
				Lower	Upper			
Change in Frequency of Deposits After – Change in Frequency of Deposits Before	7.4228	6.4765	1.73098	3.6833	11.1621	4.29	13	.001

The results in table 4 show that the differences in the mean and the variance of change in frequency of deposits before and after adoption of agency banking cannot be attributed to chance since the (t- value = 4.288) and the p- value of 0.001 which shows that the differences was statistically significant. This can be attributed to the convenience of agency banking to customers as indicated by CBK (2017) that there was a remarkable increase in the volume and frequency of deposits as results of convenience in banking through the agency banking model. Cash deposit transactions recorded the highest increase (Ksh.253.4 billion) in 2017 as compared to previous year. Further, the increase in number and value of transactions could be explained by the fact that more customers are confident and are embracing agency banking model. The results are further in agreement with the findings of Musau (2013) that accessibility to financial services by customers has played a major role in enhancing frequency of deposits and hence financial performance of commercial banks.

5. Summary of the Study Objective

The objective of the study focused on the effect of agency banking adoption on banks deposits. Change in value of banks deposits and change in frequency of banks deposits before and after adoption of agency banking was analyzed using two sample t- tests of means and variance. The results of the test rejected the P- values below 0.05 at a 95% level of significance, as well as the null hypothesis. The P-values above 0.05 at a 95% level of significance were not rejected as well as the alternative hypothesis. Another explanation of the result is the determination of the direction of the variable either at decreasing or

increasing level. The effect of the agency banking after adoption is real and different from the results before adoption of agency banking. Therefore, it is true that the adoption of agency banking had an effect on commercial banks customer deposits as well the financial performance of commercial banks in Kenya. This could be explained by the fact that agency banking has facilitated accessibility of banking services to most customers in Kenya. The conclusion to this hypothesis is that agency banking adoption has positive significant effect on banks deposits. This therefore implies that for hypothesis one, the null hypothesis which stated that agency banking adoption has no effect on banks deposits is rejected and the alternative hypothesis is accepted.

6. Conclusions

The study concludes that there was a positive and significant effect of agency banking adoption on bank deposits of the fourteen commercial banks in Kenya that were studied. An increase in the bank customer deposits significantly enhanced financial performance the fourteen commercial banks that have already enrolled the agency banking model.

Agency banking improves accessibility of banking services therefore leading to increase in revenues, this is because the more the number of customers accessing the bank services, the higher the volume of transactions, which enables the banks to earn greater revenue by charging transaction fees. The increased deposits ensure that banks have cash to lend to their customers, thus enabling the banks to earn interest income and loan arrangement fees. The deposits also enable the banks meet liquidity requirements and therefore the banks do not have to borrow in order to meet liquidity requirements, and this reduces the borrowing costs for the banks. The cost of deposit is minimal for the banks given that the interest paid to depositors is only marginal.

7. Contribution to Study and Policy recommendations

The study contributions to knowledge is unique in the sense that many studies done on agency banking are directed towards individual commercial banks, and the results obtained did not capture the entire economy neither sufficiently to make a general statement that reflect or covered the entire industry which the firm study was used as a scope. Unlike this study the banking industry was used and the results obtained provided a room for generalization statement which many parties can make use of to make decisions (examples: economists, accountants, financial experts, potential investors, administrators, marketers and academicians). From the study findings and conclusions, the study makes following recommendations: Commercial banks should adopt agency banking as a cost saving strategy, and also as a way of increasing their geographical coverage as opposed to branch expansion for positive returns on financial performance. The government through the Central Bank of Kenya should review the policies around agency banking in order to make them more effective in addressing the opportunities and risks associated with agency banking. In order to promote adoption and utilization of agency banking channels, the government should consider increasing the number of services offered by agency banking such as accounts opening.

8. Limitation of the Study. Areas for Further Study

Firstly, the scope of the study was all the commercial banks in Kenya that had adopted agency banking by December 2014. Therefore, the study should not be generalized to other financial institutions like the insurance companies, microfinance institutions and Savings & Credit Cooperatives (SACCOs) since their business context, costs and revenue drivers are different from commercial banks.

Agency banking has been adopted by some Deposit taking microfinance institutions and a study should be conducted to cover these institutions since they compete for the same clientele. A study also needs to be done to determine why there is a slow uptake of agency banking by the commercial banks which from inception less than 43% of the institutions have rolled out this service.

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