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Agency Banking Adoption and its Effect on Banks Withdrawals in 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 banks withdrawals in commercial banks in Kenya. The study was guided by the theory of diffusion of innovation. 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: *Agency Banking, Bank withdrawals and Commercial banks*

1.1 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 a record balance, or get government benefits or an immediate deposit from their employers (Central Bank of Kenya, 2010).

1.1.1 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 & 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 & 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 & 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).

1.1.2 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 programmed 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 'Huge 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 & 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 ledgers 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 & 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).

1.1.3 Agency Banking in Kenya

In Kenya agency banking was formally propelled by Central Bank of Kenya (CBK) in 2010 as an execution of a 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 this 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 & 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 & 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 stores, operator bank client withdrawals, operator bank charges installments and operator bank finances exchange 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 & Mc Kee, 2010).

1.2 Statement of the Problem

Agency banking model has been fruitful in pushing monetary incorporation in developing nations. Examples of overcoming adversity on monetary consideration have been accounted for in Brazil, South Africa and Nigeria. 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 monetary incorporation 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/presentation 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 impact of agency banking adoption on banks withdrawals. This will illuminate the management choices concerning whether agency banking administrations positively affect the money related execution of commercial banks in Kenya.

1.3 Research Objective

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

1.4 Research Hypothesis

H_o1: Agency banking adoption has no significant effect on banks withdrawals in commercial banks in Kenya

1.5 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.

2.1 Diffusion of Innovation Theory

The theoretical foundation for this study was anchored on the Theory of Diffusion of innovations. Diffusion of innovations theory was postulated by Everett Rogers in 1962. The theory seeks to explain how, why, and at what rate new ideas and technology spreads. According to Rodgers (1962) diffusion is the process by which an innovation is communicated over time among the participants in a social system. Rogers (2003) further argues that diffusion determines the uptake of new technologies. He suggested five attributes in the Theory of Innovation. The first attribute, Relative advantage, indicates the extent of technological innovation over previous innovations. These benefits can be seen from the viewpoint of technical, economic, prestige, comfort and satisfaction. If people feel that a technological innovation provides high relative advantage, then they will accept the technology. The second attribute, compatibility is the suitability of a technological innovation with the user value, user experience, and user needs.

According to Rogers (2003) the third attribute, complexity refers to the level of complexity of understanding and use of a technological innovation. The more complex and sophisticated the technology innovation, the more difficult it is to be embraced. Rodgers (2003) further explains that the fourth attribute, trial-ability is the degree to which a technological innovation can be tried and tested. The last attribute is observability. This attribute is related to the extent to which the results of technological innovations can be observed and communicated. Diffusion of innovation theory further argues that uptake of a new idea, behavior, product or innovation does not happen simultaneously in a social system; rather it is a process whereby some people take on the innovation earlier than others. There are five established new user categories. These include innovators, early users', early majority, late users', and laggards. Studies have found that the early users of technology have different characteristics than the late users. This theory has been used to explain how agency banking model has penetrated within the Kenyan banking industry (Dias & Mc Kee,2010).

Relating diffusion theory to agency banking, the agency banking is clearly an innovation that requires time to reach critical mass. With regard to communication channels, banks have done well to popularize the model with service names that resonate well with the target population. Such names include, 'Co-op Kwa Jirani', 'KCB Mtaani', 'Equity Ndio Hii', 'Family Papo Hapo', 'Chase Popote' 'Conso Maskani', Posta mashinani, DTB agent, and so on. Such names are intended to create a sense of ownership and create confidence among the banks' customers for a service that has been devolved to their neighborhood. A review of literature indicates that the use of agency banking model was not uniform in the banking industry. At a global level agency banking concept began in Brazil and Mexico (Dias & Mc Kee, 2010) and the Banks in South America may be considered as the innovators as far as agency banking model is concerned. In the last nine years agency banking has been adopted by different commercial banks at different times in the Kenyan banking industry.

2.2 Agency Bank Customer Withdrawals and Financial Performance

Agency banking customers are driven by the convenience that is brought about by the technology in terms of deposits, withdrawals and making payments. According to Johnson and et.al (2012) argues that agent banking offers a high level of reliability and convenience since agents are located even in small market centers and customers can undertake transactions from the comfort of their homes. This system therefore offers a great potential for formal financial providers to reach low- income rural people (FSD-K, 2010; Ivatury & Mas, 2008). Agent banking has the potential of reducing costs across the financial system. Findings from a survey conducted in 2009 by FSD-K showed that, on average the closest agent to respondents was reachable in less than12 minutes and at a transport cost of approximately 15 shillings. By contrast, Fin Access data showed that the nearest bank branch for around 60% of the population would be reached in more than 30 minutes and, the transport would cost more than 50 shillings (FSD-K Annual Report 2010; FSD-K Annual Report, 2013). This highlights the significance of proximity to overall transaction costs.

Agent banking lowers the cost of delivery, which includes costs both to banks and to customers of accessing services, for example, costs associated with travelling and queuing in the banks (Mas & Radcliffe, 2011). Customer withdrawals are motivated by cost and convenience associated with the transaction, it is important for banks management to understand the extent that costs and convenience on withdrawals influence their customer's decision to withdraw cash (Baxter, 2008). In Brazil, rural agents transact more deposits and withdrawals as a percentage of total transactions (38%) than their urban counterparts (8%) (Dias & Mc Kee, 2010). Also, in Brazil Withdrawals and deposits account for 12.6% and are nearly equally divided into savings and current accounts. In Colombia from August 2010 to July 2011 it was reported more withdrawals than deposits, however, the number of these two types of transaction were typically and consistently close (Dias & Mc Kee, 2010).
In India, an average of 8.4 deposits and 3.1 withdrawals were carried out by individuals FINO (a technology firm and one of the first pioneers of agency banking in India) agents each day in 2010. With 10,000 agents Nationwide this translates to approximately 84,000 deposit and 31,800 withdrawals each day. With an average deposit size of USD 3.5 and withdrawals size of USD 7.39 per agency this translates to USD 301,000 worth of deposits and USD 221,000 of withdrawals processed each day (Dias & Mc Kee, 2010). According to Ofunya (2014) in Kenya cash withdrawals is the most popular banking service sought by customers at the agent banking outlets. In today's business, competition, deregulation and globalization have compelled banks to offer service 24 hours around the globe, whereas the significance drawback, on the other hand, lies in its inconvenience and security factors.

However, both these factors have a significant and profound impact on banks' financial performance (Ignacio & Hannah, 2016). The introduction of agency banking has increased the number of hours that customers can access financial services. During withdrawals most customers prefer to use agency banking (Ivatury & Ignacio, 2015). However, agency banking in most commercial banks have a limit to the amount one can withdraw in a day. This means that any customer who wants to get cash that is more than the limit should use the banking halls. According to Mas and Radcliffe (2011) agency banking has increased the number of business hours for services delivery, bank agents work during holidays and weekends, bank agents close late and open early and that all these aspects have an influence on cash withdrawals. It is also noted that agency banking has brought about cost effectiveness in transactions for commercial banks. According to Dias and Mc Kee (2010) Bank agents offer low-transaction cost and are faster. It is also evident that agency banking has led to decongestion of banking halls that is; agency banking has also reduced withdrawals in banking halls.

3.1 Research Methodology

This study adopted an exploratory non-experimental research design. The empirical model adopted was event study. The study employed quantitative secondary data. The data covered 15 commercial banks that had adopted agency banking by December 2014. Data was derived from CBK banks supervision annual reports and from financial reports of the 15 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 are used.
To establish the effect of agency banking adoption on bank withdrawals. Means and variance of change in growth of value of banks withdrawals 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 banks withdrawals 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 withdrawals 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 cited in Chandra, 2010 & in Abubakar *et al*, 2014).
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 withdrawals. This also determined the performance of commercial banks. The test is presented statistically as:

$H_O: R_{11} = R_{12}$……....3.1

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:

$H_o: \delta_{11}^{\ 1} = \delta_{12}^{\ 2}$……3.2
$H_{a1}: \delta_{11}^{\ 1} > \delta_{12}^{\ 2}$……...3.3
$H_{a2}: \delta_{11}^{\ 1} < \delta_{12}^{\ 2}$……...3.4

Where;
$\delta_{11}^{\ 1}$ is variance before the adoption of agency banking.
$\delta_{12}^{\ 2}$ is variance after the adoption of agency banking.

4.1 Effect of Agency Banking Adoption on Banks Withdrawals

The study sought to assess the effect of agency banking adoption on the bank's withdrawals. To test the effect, the average mean of change before adoption and after the adoption was commuted on a quarterly basis using the event window of 32 periods on a financial quarterly basis. The means for the 14 commercial banks were compared and presented in figure 4.1.

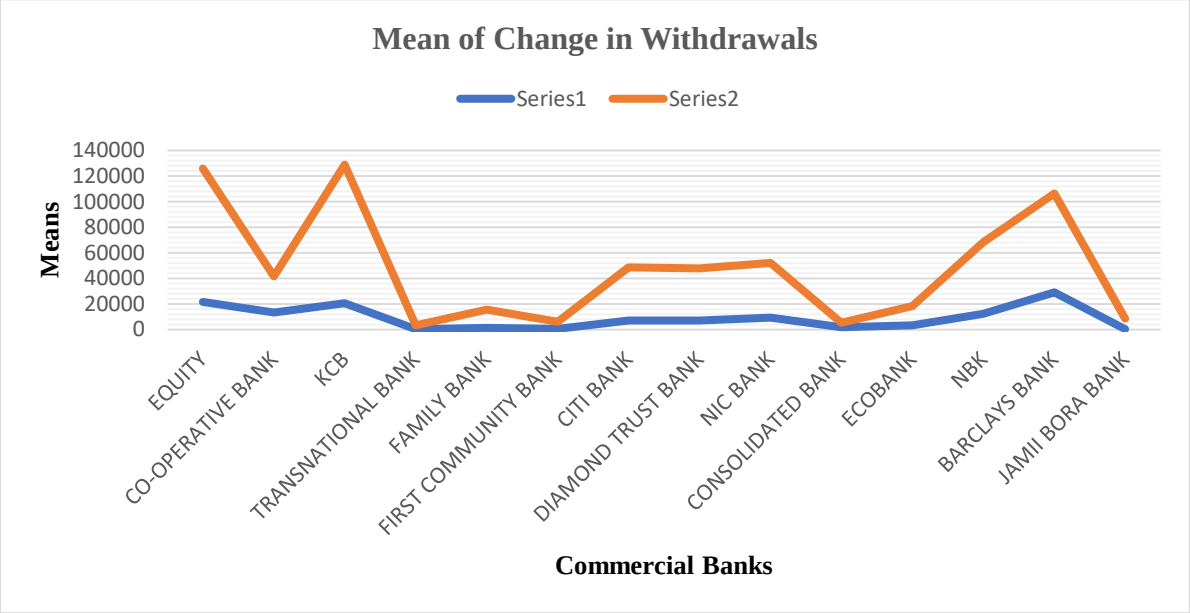

Figure 4.1: Mean of change of withdrawals before and after adoption of agency banking

The results on figure 4.3 shows that there was a general increase in the change of withdrawals by all commercial banks after the adoption of agency banking. Equity bank, KCB and Barclays bank had the highest mean difference between the change in withdrawals before and after adoption of agency banking. Co-operative bank, Transnational bank, Family bank, Fist Community bank and Consolidated bank have the least differences in the mean of change of withdrawals. This indicates that most banks that had adopted agency banking showed an increase in the change of withdrawals which can be attributed to adoption of agency banking. The reason behind this increase in the change of withdrawals was explained by the CBK (2017) banks supervisory report which indicated that as a result of agency banking there has been an increase in the amount of withdrawals among the commercial banks. The results also support the findings of Mas & Radcliffe (2011) who indicated that agency banking lowers the cost of delivery, which includes costs both to banks and to customers for accessing services. A similar view was noted by Baxter (2008) that customer withdrawals are motivated by cost and convenience associated with the transaction, meaning that for the customer the total costs and convenience on withdrawals influence their decision to withdraw cash.

4.1.1 Paired Samples Statistics

The results further indicate that the aggregate mean of change in withdrawals after adoption for all the 14 commercial banks was much higher compared to the aggregate mean of change in withdrawals before adoption of agency banking as shown in Table 4.1.

Table 4.1 Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Change in Withdrawals After	48339.7542	14	44383.4343	11861.971
Change in Withdrawals Before	9113.0412	14	9151.8300	2445.9294

The results in table 4.1 shows that adoption of agency banking has an effect on withdrawals in all the commercial banks that have adopted agency banking (mean before = 9113.0412 while mean after = 48339.7542). There was an increase in the withdrawals as a result of agency banking as shown by the differences in the means. The study therefore agrees with other studies done by Kambua (2015) and Argamo (2015) who noted that there was a significant effect between adoption of agency banking and the means of withdrawals among commercial banks.

4.1.2 Paired Samples Test

The results were tested using the paired t – test at a significance level of 0.05 in order to assess whether the differences in the mean results were statistically significant or not. The results are presented in table 4.2.

Table 4.2: Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Change in Withdrawals After – Change Withdrawals Before	39226.7	36016.5	9625.802	18431.43	60021.994	4.075	13	.001

The results indicate that the differences in the means of change in withdrawals from all the commercial banks was statistically significant since the t- value =4.075 and p value < than 0.05. This implies that the difference in the means of change in withdrawals was not by chance. Hence it can be said that there has been in increase in the withdrawals by customers from commercial banks since the adoption of agency banking.

The change in withdrawals is seen to have a statistically significant value represented by t – value of 4.075. This indicates that the change in withdrawals can be attributed to the amount of withdrawals made. This agreed with the findings of Ndirangu (2014) who indicated that banks recorded an increase in cash withdrawals from 34% in December 2016 to 40 % recorded in December 2017.

This represented a growth of 6%. This is further explained by the findings of Minamo (2014) who established a positive and moderate correlation between agency banking and customer's bank withdrawals.

4.1.3 Frequency of Withdrawals

It was also important to analyze the frequency of withdrawals to ascertain whether they influenced the withdrawals or not. The results were presented in figure 4.2

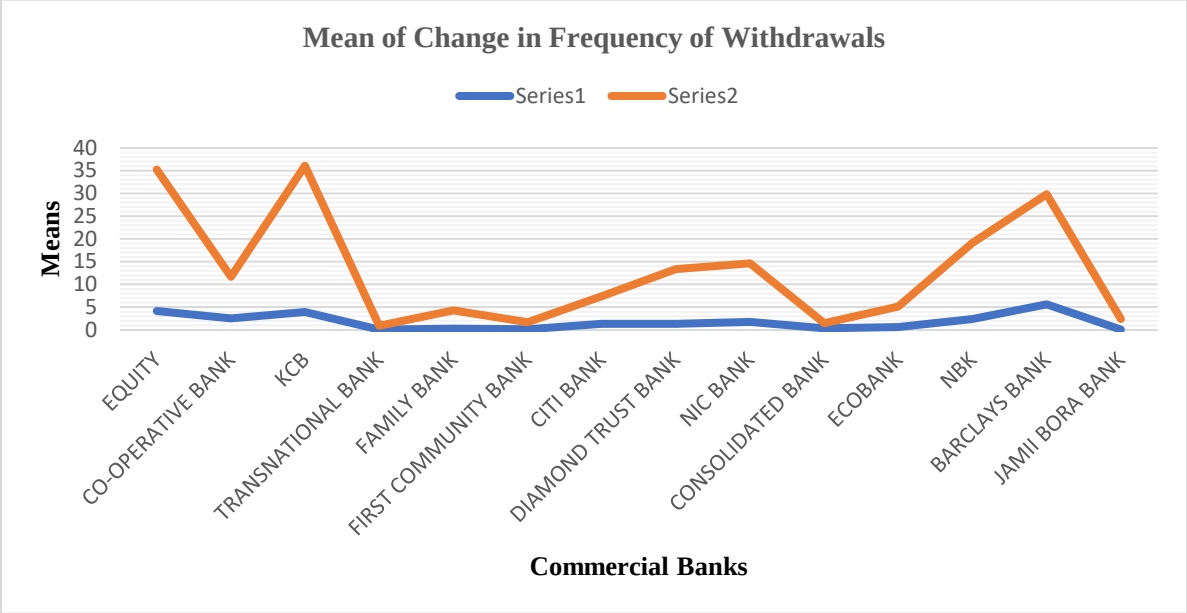

Figure 4.2: Mean of Change in frequency of withdrawals before and after adoption of agency banking

The results presented indicated that there was an increase in the mean of change in frequency of withdrawals for all the banks with KCB and Equity bank having the highest mean of change in frequency of withdrawals. Transnational bank and Consolidated bank had the lowest mean frequency change in change of withdrawals before and after adoption of agency banking. The increased activity defined by the bank's frequency in withdrawals by the customers explains the reason for the improved withdrawals. There is a very clear difference between the mean of change in frequency of withdrawals before and after the adoption of agency banking. This is in support of the findings by CBK (2017) indicating that since the adoption of Agency banking there has been a 46 per cent increase in the various activities including withdrawals which is attributed to increased efficiency of the model. The findings further support Santu et al (2017) who found that five commercial banks in Zimbabwe that were engaged in agent banking operations had achieved significant expansion in cash withdrawals as a result of increase in the customer base.

4.1.4 Paired Samples Statistics

The results further indicate that the aggregate mean of change in frequency of withdrawals after adoption for all the 14 commercial banks was much higher compared to the aggregate mean of change in frequency of withdrawals before adoption of agency banking as shown in Table 4.3.

Table 4.3: Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Change in Frequency of Withdrawals After	13.0825591	14	12.52736530	3.34807921
Change in Frequency of Withdrawals Before	1.7588416	14	1.76717679	.47229786

The results indicate that after adoption of agency banking the mean change in frequency of withdrawals was 13 times more than the mean change in frequency of withdrawals before the adoption. This implies that the change in frequency of withdrawals

increased for all the commercial banks after the adoption of agency banking. This supports the findings of Jagongo and Mchembere (2017) who established that the number of withdrawals from agency banking had increased to both small and large customers and this was as results of convenience, accessibility and availability of funds. The study further supports a study by Kambua (2015) who concluded that there is a positive relationship between cash deposits, volume of deposits, volume of withdraws and financial performance.

4.1.5 Paired Samples Test

To evaluate whether these differences were statistically significant or not, the paired t- test for the two samples before and after adoption of agency banking were computed and the results presented in table 4.4.

Table 4.4: Paired Samples Test

	Mean	Std. Dev	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper	t	df	Sig. (2-tailed)
Change in Frequency of Withdrawals After – Change in Frequency of Withdrawals Before	11.324	10.899	2.9130	5.0305	17.616	3.89	13	.002

The results presented on table 4.4 shows that the difference in the mean of change in frequency of withdrawals after and before the adoption of agency was statistically significant with a t- value = 3.887 and p- value = 0.002. Given that the critical t- statistic is 1.771 the results indicates that the differences between the means of change in frequencies is not by chance, hence adoption of agency banking by commercial banks affects mean withdrawals which could be explained by the frequency of withdrawals. The results are in support of Minamo (2014) who established that agency banking adoption improved banks financial performance significantly with a 10.7% increase in performance being explained by the adoption of agency banking. This can also be explained by the fact that customers are more informed and have confidence in the system than before as noted by Njagi (2014) who indicated that the increased in withdrawals from agency banking has been made possible because customers are more confident about the system.

5.1 Summary of the Study Objective

The objective of the study involved analyzing the effect of agency banking adoption on banks withdrawals. Banks withdrawals were measured by the means of change in banks withdrawals before and after adoption of agency banking and also means of change in frequency of withdrawals was used. The study hypothesized that agency banking adoption has no effect on banks withdrawals. The findings indicated that the adoption of agency banking had a positive significant effect on banks withdrawals. The conclusion to this hypothesis is that adoption of agency banking has a positive significant effect on banks withdrawals. This therefore implies that for the null hypothesis which stated that agency banking adoption has no effect on banks withdrawals is rejected and the alternative hypothesis is accepted. With respect to the research gaps that underpinned this study, the findings of the study objective contribute immensely towards the existing knowledge on agency banking in financial management by filling in the gaps that were left by other related studies.

5.2 Conclusion

The study concludes that there was a positive and significant effect of agency banking adoption on bank withdrawals of the fourteen commercial banks in Kenya that were studied. An increase in the bank customer withdrawals 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 number of withdrawals increases the fee income charged to customers in form of withdrawal charges, further leading to an increase in revenue for the banks.

5.3 Contribution to Study

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. Example economists, accountants, financial experts, potential investors, administrators, marketers and academicians.

5.4 Policy Recommendations

From the study findings and conclusions, the study makes following recommendations: For the last nine years agency banking has been in operation in Kenya and the kind of service offered by the agents has been limited to simple transactions and supportive functions like deposits, withdrawals issue of credit card forms, account opening forms, disbursement of retirement benefits and collection of credit cards. A more interesting perspective will be when banks allow agents to perform core activities like vetting loan applications and collecting loan repayment, it is recommended that the banks transfer the basic knowledge to the agents to enable them perform these extra activities. The banks also need to advertise the other kinds of service that can be done via agency banking to ensure an uptake of all services offered by agents who will be more efficient and cost effective.

5.5 Limitation of the Study

The study only employed event study methodology for statistical analysis of the data and which is one of the tools used for statistical analysis. Other statistical methods such as multiple linear regression analysis would probably yield different results. The study was conducted on the commercial banks in Kenya whose context is different from other countries. The results should therefore not be generalized to other countries whose geographical setting is different from Kenya.

5.6 Areas for Further Study

A study needs to be undertaken to determine the challenges that the agents face in carrying out the agency functions and ways or areas of improvement that the regulator, banks and agents have to ensure greater penetration and greater financial inclusion.

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