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ABSTRACT

The aim of the research was to establish effect of alternative banking channels on performance of commercial banks in Kenya. In an exertion to grasp the unbanked persons as well as fiscal establishments outreach on alternate banking channels, an insurgency in a variety of imbursement clarifications has been observed. The research espoused a descriptive study designs because it provided a clear outcome and the characteristics associated with it at a particular point in a period. The study applied both primary as well as secondary data. The study used five year (2015-2019) data for analysis. Analysis was done with the help of statistical package for social sciences (SPSS) version 21 and Microsoft excel 2016. Means and standard deviations were the descriptive statistics used to analyze the trend of mobile banking, ATMS banking, agency banking and internet banking. Regression analysis was used find out the effect of alternative banking channels on the financial performance of commercial banks in Kenya. Analysis of variance (ANOVA) was used to test the goodness of fit of the regression model to the data collected. The study indicated that there is a strong relationship between alternative banking channels and financial performance of commercial banks in Kenya. This study also established that 14.1% of the total variance in the financial performance of commercial banks in Kenya can be attributed to alternative banking channels. The remaining 85.9 % of the variance in financial performance can be attributed to other determinants of financial performance which were not the subject of this study. ANOVA statistics revealed that the regression model was ideal since it had a significance level of 0.0%. The study further established that mobile banking, ATMs banking, agency banking and internet banking affects financial performance of the commercial banks positively and in a statistically significant way. The study established that mobile banking, ATMS banking, agency banking and internet banking affects financial performance of commercial banks positively. As a result, the study made the following recommendations for policy change: that commercial banks in Kenya should invest heavily in alternative banking channels such as mobile banking, ATMS banking, agency banking and internet banking as this will lead to improvement in the financial performance of the commercial and that the Kenyan Government through the Central bank should come up with policies that create a conducive environment for commercial banks to operate in since it will translate to economic growth of the country.

Key Words: *Mobile Banking, Agency Banking, Internet Banking, Automated Teller Machine*

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INTRODUCTION

Current financial mayhem as well as growing market complexity has positioned astonishing compression on monetary establishments. The upsurges of digital customers along with extraordinary-cost substructure of corporeal lending sites are foremost to a deteriorating ROI in lieu of branches, (Mahalaxmi, 2016). Branches endure a significant interface point, having a vital part in a multifaceted product sales as well as affiliation construction in lieu of retail as well as small-business clients. Nonetheless, as customers alter the mode of banking, the worth suggestion of traditional branches is in question. Kithuka (2016) pointed out that developing the branch plan towards alignment by varying clients in addition to financial practicalities can help financial institutions upsurge ROI in addition to location themselves in lieu of the future.

From the international viewpoint, alternate banking networks have been approved by banks owing to the enormous variations in technology as well as consumer viewpoint. For example, in 2010, a conveyed 5.5M clients were listed operators of wired banking in middle east as well as an projected 30% of entire bank operation were carried out online, (Kimball, 2016). According to a 2011 research, 62% of respondents indicated that they prefer internet as a way of banking. Merely 20% pointed out outlet banking - a sharp deterioration equated by 2007 when 40% of respondents favored towards bank at an outlet. Rendering to information by State Bank (2016), branchless banking (BB) dealings slithered by 6% to 66.8M throughout July-September section of 2014 contrary to 71.2m in the previous part.

Monetary establishments in Kenya are ruled via the Companies Act (Cap 486), the Banking Act (Cap 488), the Central Bank of Kenya Act (Cap 491), as well as numerous sensible strategies distributed by CBK. The banking segment was modernized in 1995 as well as exchange controls elevated. Central Bank of Kenya is under the Ministry of Finance which is accountable in lieu of articulating as well as executing fiscal plan as well as nurturing the liquidity, creditworthiness as well as suitable running of the monetary scheme. CBK issues gen happening on Kenya's monetary establishments as well as non-banking monetary establishments, interest rates as well as further publications in addition to the procedures. There are 43 listed financial establishments functioning in Kenya, (CBK, 2017).

Banks stand for a momentous as well as powerful segment of trade globally that plays a critical part in the Kenyan as well as international economy, (Joseph, 2016). Commercial banks are monetary mediators that function as monetary reserve enlistment points in the worldwide economy. The role of financial establishments in an economy is supreme since they implement fiscal strategy as well as deliver ways in lieu of enabling payment for belongings as well as amenities in the national as well as global trade, (Kiragu, 2017). They facilitate coffers required by business as well as domestic segments from excess expenditure to shortfall outlay components in the economy.

A well-established proficient banking segment is a vital requirement in lieu of saving as well as investment choices wanted in lieu of fast fiscal development, (Ivatury, 2016). A well-operative banking segment offers a scheme through which a nation's greatest lucrative as well as ventures are methodically as well as unceasingly funded. Financial establishments are guardians of customer's coffers as well as function by getting money deposits from the community as well as lending them out towards the penurious at statutorily permissible interest rates. Credits remain founded on loan strategy of the monetary establishment which is firmly fixed by the central bank interest rate strategy, (Maungu, 2015).

Monetary establishments have been positioning both old as well as new different networks in lieu of banking undertakings. M-PESA that is an electronic banking scheme that uses phones has enormously been espoused by entire monetary establishments hence making it the uppermost rising web in lieu of

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monetary dealings, (Kirimi, 2018). Financial establishments similarly began agency banking in Kenya where persons with reputable establishments are chosen to help as mediators in lieu of bank facilities. For example, cooperative banks have amenities named as —Coop kwa Jirani, Equity Agents as well as KCB Mtaani amongst others, (Ndirangu, 2018). Alternate banking networks are strategies that have been extensively used by numerous local monetary firms therefore its vital to research on the influence they have on their enactment.

Statement of the Problem

There is a revolution in the banking sector worldwide; this has seen the banks embrace new technology as well as review of the governing regulations. This has led to banks adopting technology in their operations. Other banks are changing and embracing relationship management and marketing via technologies for instance phones, emails and even social media with the general consensus that this enhances the value of the firm and its clients (Kohali & Sheleg, 2017). The advancement in technology has made some tasks more efficient and cheaper but it also has its fair share of challenges (Aladwani, 2019). This has seen firms in the banking sector use technology to develop alternative banking channels to reduce costs and enhance 9 efficiency and convenience but still fail (Kombe & Wafula, 2018).

Many if not entire monetary establishments are profit oriented, (Omondi, 2016). In lieu of that motive, alternate banking networks are believed to be one of the crucial means of augmenting amenities as well as reducing expenses. Currently, banks alternative banking networks are confronted by numerous encounters which convey anxieties on their influence to the performance of monetary establishments, (Maungu, 2015). Maungu (2015) also pointed out that amid numerous hurdles encountered comprise of lack of client self-assurance, safety anxieties, system letdowns, cases of operation faults as well as network disappointments. Additionally, it has been renowned by EBL (2016) that regardless of the presence of alternate banking networks, bank halls are still overfilled. This is happening notwithstanding banks like equity doubling over the counter money drawing cost. This undoubtedly displays that even though there is alternate banking channels, clients are looking for amenities in monetary establishment outlets. Additionally, this tendency puts in to question, the influence of alternate banking networks on monetary enactment of monetary establishment assuming that clienteles go to monetary establishments notwithstanding the presence of alternative banking channels.

Studies have been reviewed on this area of knowledge. The study by Kithuka (2016) on ABCs influence on how banks performed financially used other alternative banking means for instance agency banking, operating expenses, m-banking and deposits held by the customers while this research will be based on Internet, agency, mobile as well as ATMs banking. Many banks have invested a lot of their resources on alternate banking channels for instance internet banking, more ATMs, agency banking, mobile banking as well as others but its influence on the banks enactment has not been widely reviewed. In view of the above problems, i.e. security concerns regarding the banking channels, system failures while serving customers and also cases of transaction errors, the researchers did not show how the challenges could be dealt with to enhance performance of the channels and therefore the researcher carried out the research on the effect of alternative banking channels on performance of commercial banks in Kenya to bridge the gap.

Objectives of the study

The overall aim of the undertaking was to establish the effect of alternative banking channels on performance of commercial banks in Kenya. The specific objectives were;

The research was guided by the following specific objectives;

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- To determine the effect of mobile banking on performance of commercial banks in Kenya.
- To determine the effect of agency banking on performance of commercial banks in Kenya.
- To determine the effect of internet banking on performance of commercial banks in Kenya.
- To establish the effect of usage of automated teller machine (ATM) on performance of commercial banks in Kenya.

The research tested the ensuing null hypothesis:

- H01: Mobile banking does not have a statistically significant effect on performance of commercial banks.
- H02: Agency banking does not have a statistically significant effect on performance of commercial banks.
- H03 Internet banking does not have a statistically significant effect on performance of commercial banks.
- H04: Automated teller machine does not have a statistically significant effect on performance of commercial banks

LITERATURE REVIEW

Theoretical Framework

Financial Intermediation Theory

The financial intermediation theory instigated from the effort of Gurley and Shaw (2015). Fiscal intermediation is a procedure linking extra components depositing coffers with monetary establishments which lead to shortage of units, (Bert, 2015). Rendering to the theory, monetary mediators originated due to failure of having comprehensive info, extraordinary transactional overheads as well as regulation approaches. Financial intermediation theory view mediators as methods of plummeting information irregularities as well as business outlays via combining resources of clients ensuing to scale frugalities, (Ezeoha, 2015).

Agency Theory

Agency theory was postulated by Jensen and Meckling (2016). Theory asserts that administrators doesn't act to capitalize on income to investors except there is suitable governance arrangements realized in large firms to defend the welfares of stakeholders. Rendering to Jensen & Meckling, (2016), affiliation amid proprietors and administration is well-defined as principals involve proxies to accomplish amenities on their own behalf. As used in business governance, this theory recommends the ultimate problem for the proprietors/stakeholders who engage experts to work for them when they are far. Agency expenditures are overheads caused due to self-centeredness. Consequently, agency costs curtail due to the affiliations amid administrators as well as stakeholders, (Jensen & Meckling, 2016).

Signalling Theory

Signalling theory respites on the transmission as well as clarification of info at hand regarding a commercial initiative to the capital market, as well as appropriation of the resultant acuities into the footings on which money is made obtainable to the initiative, (Gurley, 2018). Basically, movements of coffers amid an initiative as well as the capital market relying on the movement of info amid them, and this are made possible by the use of internet, (Bert, 2015). For instance organization's choice to make an attainment or strip; repurchase unresolved shares; and choices by strangers for instance an established depositor deciding to reserve a definite amount of equity or debt finance.

Social Construction Theory

This theory is possibly the greatest pertinent of Trevor Pinch and WiebeBijker's, (2016) social construction of technology theory. This theory contends that technology does not control how persons obtain as well as how they use technology but that individuals control how as well as in what means technology is utilized. The theory postulates that usage of a technology cannot be unstated deprived of knowing how it is socially assimilated within society. Within diverse communal settings, technology can take diverse meanings as well as adoption rely on how society assess the technology, (Kumbhar, 2017).

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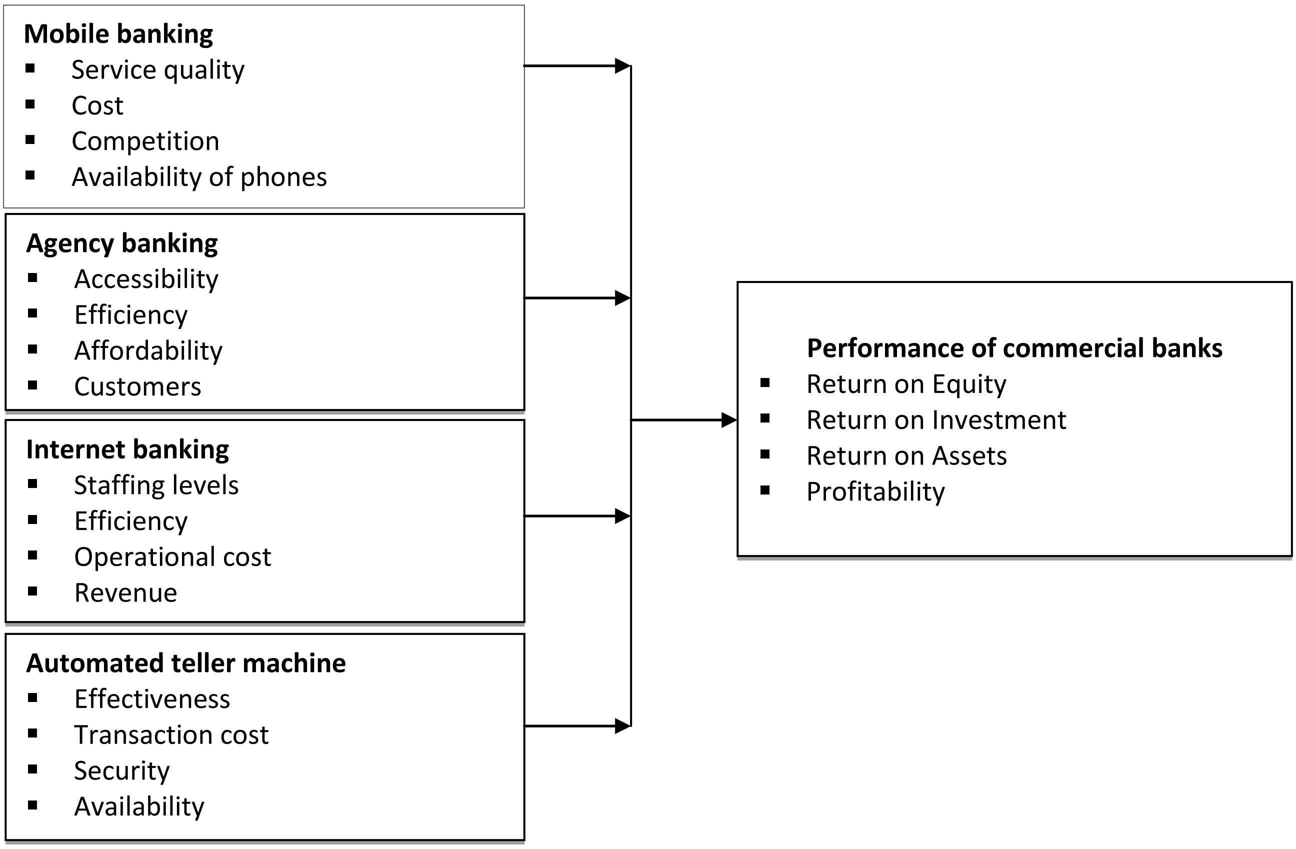
Conceptual Framework



Independent variables **Dependent variable**

Figure 1: Conceptual Framework

Empirical Review

The experiential appraisal is founded on both global as well as local researches. Kiragu (2017) recognized the influence agency banking had on performance of monetary establishments in Kenya. The purpose was to fill the gap and add to existing literature since less research has been done within area using Kenya data. The population of study was 30 respondents and the data for the selected respondents were generated analyzed and compared using ordinary least square (CKS) Fixed and random effect method of estimation. The result showed that agency banking has a significant positive impact on the performance of public sector. The findings are that there were positive and significant relationship between a firm performance and the use of agency banking which was used as an essential variable.

Kumbhar (2017) assessed alternate banking networks as well as clients' gratification amid government as well as private sector banks in India. Regression analysis and variance analysis were the tests applied with the use of the computer SPSS program. Sample used was the 58 respondents from different institutions in a period of 2012-2013. The results indicated that there is a momentous association amid alternative banking as well as client gratification. The research then decided that banks must consider truths as well as improve service excellence of alternative banking services so as to upsurge client's gratification.

Munyoki (2017) scrutinized the outcome of online banking on the fiscal enactment of monetary establishments in Kenya. A descriptive study design was espoused as well as a study populace of all the 43 monetary establishments in Kenya. The primary facts were gathered via questionnaires whereas

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secondary data was from yearly reports delivered by CBK. The research recognized a weak but positive as well as momentous relation amid online banking as well as fiscal enactment of monetary establishment in Kenya. The affiliation is credited to online bank cut costs, upsurge commission revenue; decrease recruitment echelons as well as make banking more suitable in lieu of clienteles. The investigator then commended the monetary establishment ought to address safety concerns in lieu of the cumulative online banking deception cases.

Maungu (2015) did a study on the influence of alternate banking channels on how fiscal establishments achieved fiscally in Kenya. A descriptive exploration design was applied, facts were gathered from monetary establishment annual reports as well as reports delivered by CBK. The researcher found that alternate banking networks like mobile banking, agency banking, client deposits as well as operational expenditures causes a disparity of 73.4% of the fiscal enactment amid monetary establishment in Kenya. The research revealed that rate at which mobile banking is used had deteriorated from 2012. The researcher suggested that financial establishment must espouse more alternate banking channels to improve organization profitability.

Parasuraman (2017) did a research about the impact of Electronic-banking on effectiveness of commercial banks in India for a period between 2006 – 2014. The research sample entailed of 31 monetary establishments in India. The researcher used numerous regression analysis to determine the impact of E-banking amenities on effectiveness of monetary establishment. The research found out that a positive outcome amid e-banking as well as viability of both public as well as secluded segment monetary establishment. The research also recognized an upsurge in profitability with the rise in figures of ATMs. The research nevertheless recognized an inconsequential affiliation amid number of branches as well as effectiveness of banks.

Waithanji (2018) studied the influence of mobile banking on operation outlays of microfinance establishments by observing mobile banking acceptance as well as the conduct of operation costs. The research revealed that mobile banking abridged operation outlays substantially although they did not unswervingly felt by monetary establishments due to the trivial mobile banking client base. Kirimi (2018) carried out a research on the level of usage of agency banking amid financial establishments in Kenya. The research revealed that there is trouble in applying suitable oversight by the agent as well as client collaboration was unpredictable with general banking controlling outline. The results discovered need in lieu of even training of agents on vicissitudes in working procedures as well as rules so as to eliminate incidence of mistake as well as faults that hinder infiltration of agency banking therefore improving banks' fiscal enactment.

Okun (2017) prepared a research on consequence of level of credits on fiscal enactment of monetary establishment in Kenya. The researcher discovered that affirmative as well as momentous affiliation amid Deposits Ratio, ROE, Deposits Ratio as well as ROA. The research commended that fiscal establishment in Kenya must invest in appealing to further low cost deposits thru accepting alternative banking channels novelty like Mpesa as well as agency banking so as to entice deposits at the lowermost charge probable as well as plummeting costs related with other procedures of deposit enlistment.

Kithuka (2015) wanted to institute the aspects swaying development of agency banking. The research tested 100 agencies from Equity bank who are engaged, and operating in Kwale County. The researcher recognized the suitability of the cash transmission technology in addition to its availability, cost, support as well as safety impact the usage of agency banking. Kamau (2018) wanted to institute the outcome of agent banking as a monetary excavating inventiveness in Kenya. The outcomes exposed nonexistence of association

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amid agent banking as well as fiscal excavating. Waithanji indicated that the affiliation might not be decisively solved owing to the small number of financial establishment that have executed it as well as the influence might develop faster when monetary establishments accept agency banking.

Munyoki (2017) carried out a research on outcome of online banking on fiscal enactment of monetary establishments in Kenya. The research revealed that generally, online banking has a confident as well as momentous impact on the monetary enactment of fiscal establishment in Kenya. This is due to the fact that online bank censored banks costs, upsurge commission revenue, decrease staffing echelons as well as making banking more suitable in lieu of clienteles.

Omondi, Maokomba and Musiega (2016) explored the impact of alternate banking networks on success of financial establishment of Kenya. The researcher recognized that banks must ensure that ABCs' amenities are planned in a way that clienteles can effortlessly use them since they will lead to great payment proportion in lieu of formerly unbanked section; banks should similarly use contemporary technology in their ABCs amenities as they will make them user approachable, quicker as well as suitable; Clienteles must pledge to ABCs amenities to save time, cash and similarly permit them to execute numerous transactions at their coziness wherever as well as at any time.

METHODOLOGY

The researcher used a descriptive research design in lieu of the research since it was the most appropriate. The target populace of this research was 600 employees from the 50 financial establishments in Mombasa County. The population was separated into top, middle level as well as lower level management. The investigator used both primary as well as secondary data in lieu of research. Structured questionnaire were given to the main respondents. The questionnaires were self-administered to the staffs from all departments who were picked randomly. The quantitative data was scrutinized via descriptive figures including mean scores, frequencies, standard deviation as well as frequencies were generated. To regulate nature of the relationship amid variables numerous regression analysis were used. The investigator also used SPSS version 21 to scrutinize facts. Regression, ANOVA, correlation and model summary were generated as well as figures presented in tables. Inferential data that were used were chi square.

In this study multiple regression model was employed to analyze the relationship between alternative banking channels and financial performance of commercial banks in Kenya. The following regression model was used.

$Y= \alpha +\beta_1X_1 +\beta_2X_2 + \beta_3X_3+ \beta_4X_4+ \varepsilon$ Where:

Y = Financial Performance of commercial banks (ROA)

α = Constant term

β_1, β_2, β_3, β_4 are the coefficients of the predictor variable and

X_1= Mobile banking

X_2= Agency banking

X_3= Internet banking

X4= Automated teller machine

ε = Error term

RESULTS

Descriptive Statistics

Descriptive statistics summarizes a given data set, which can be either representative of the entire population or a sample of it. Descriptive statistics helps describe data in describe, show or summarize data in a meaningful way.

Effect of mobile banking on performance of commercial banks

Adoption and usage of mobile banking was investigated using four items. The mean and standard deviation were computed and result is as shown in table 1.

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Table 1: Effect of mobile banking on performance of commercial banks

Mobile banking statements	Mean	SD
Banks compete on mobile banking service platform	3.4	1.310
Our customers regard mobile banking as safe and convenient	3.2	1.270
Mobile banking is considered secure by customers	2.9	.987
Mobile banking adoption is on the increase in payment of utility bills	3.12	1.310

From the results, commercial banks compete on mobile banking service platform (mean=3.4, SD=1.310). Commercial bank customers regard mobile banking as safe and convenient (mean=3.2, SD=1.270), Mobile banking is considered secure by customers with a (mean=2.9 SD=.987) and mobile banking adoption is on the increase in payment of utility bills (mean=3.12, SD=1.310)

The result on mobile banking as a competitive tool means that the banks regard mobile banking as a critical avenue to complete with other banks. Thus they regard it has a critical tool that determines their competitive position. Mobile banking is regarded as safe, convenient, secure and its adoption is on the rise. Customers deposit or withdraw money to other platforms like Mpesa and Airtel money and transact with their bank accounts conveniently using mobile phones. Mobile banking can be used even in remote areas especially due to reduced cost of mobile phones. The findings concur with those of Galor (2016) who indicated that mobile banking offers banks feasible access to outreach parts as well as at the similar time permits them to advance client suitability as well as effectiveness through rallying.

Mobile Banking (KShs. Billions)

The study further sought to find out the volume of money that was transacted through the mobile banking between the years 2015 and 2019. The study results were as shown in Table 2.

Table 2: Mobile Banking

Year	2015	2016	2017	2018	2019
Mobile Banking (KShs. Billions)	97.43	128.73	158.46	197.65	234.67
Stdev	14.07	10.33	15.72	14.55	18.25

Source: Research Data (2022)

The results of the study revealed that the amount of money transacted through mobile banking had been increasing steadily over the study period (2015-2019). The amount of money transferred through mobile phones started from a low of Kshs. 97.43 billion in the year 2015 and increased steadily to a high of Kshs. 234.67 billion in the year 2019. This implies that the banks customers have embraced mobile banking as an alternative banking channel.

Effect of agency banking on performance of commercial banks

Agency banking penetration and adoption in Mombasa was investigated using four items. The mean and standard deviation of the data obtained were computed and result is as shown in table 3.

Table 3: Effect of agency banking

Effect of agency banking	Mean	SD
Enhances access to the basic banking services	3.37	1.299
Divert existing customers from crowded branches	4.22	.822
Reach an additional‖ client segment or geography	3.29	1.167
Provides knowledge and understanding about banking	3.66	1.175

The results shows that agency enhance access to the basic banking services (mean=3.37, SD=1.299), divert existing customers from crowded branches (mean=4.22, SD=.822), reach an additional‖ client

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segment or geography (mean=3.29, SD=1.167) and provides knowledge and understanding about banking to the clients (mean=3.66, 1.175).

The results means that agency banking created more financial inclusion by offering technology driven solutions to the banked and even unbanked citizens living in rural and away from bank branches. Agency banking provides facilities for utility payments like school fees for most parents at their convenience in the region. The findings concur with those of Mahalaxmi, (2016) who indicated that monetary establishment's usage of agents might be suitable as well as effectual than allowing account owners as well as possible owners to tangibly walk to the bank branch, and therefore enhancing fiscal addition prosperity administration products.

Agency banking

The volume of money transferred electronically through agency banking was sought. The findings of the study are shown on table 4.

Table 4: Agency banking (Kshs. Millions)

Year	2015	2016	2017	2018	2019
Agency Banking	98,354.36	152,097.40	236,215.70	345,699.77	504,721.66

Source: Research Data (2022)

This research found that adoption of agency banking as an alternative banking channel has been on a steady rise over the study period (2015-2019). The findings indicate that the highest volume of money through agency banking was Kshs. 504,721.66 millions in the year 2019 while the lowest Kshs. 98,354.36 million) was transacted in the year 2015. These figures indicate that agency banking as an alternative banking channel is steadily increasing.

Effect of internet banking on performance of commercial banks

The internet banking in commercial banks in Mombasa was investigated using four items. The mean and standard deviation were computed and result is as shown in table 5.

Table 5: Effect of internet banking

Effect of internet banking	Mean	SD
Provide banks with higher profits	3.29	1.309
Lower operational expenses	3.05	1.071
Enhances efficient mode of transaction	3.59	1.072
Enhances customer satisfaction	3.73	1.184

The results indicate that the internet banking provide banks with higher profits (mean=3.29 SD=1.309) and it also lowers the operation expenses (mean=3.05, SD=1.071). The results further shows that the internet banking enhances efficient mode (mean=3.59, SD=1.072) and customer satisfaction with a (mean=3.73, SD=1.184).

The results means that the respondents indicated that internet banking has created a climate favorable for growth of banks. The respondents indicated that the increased profits associated with introduction of internet banking results to growth that can be reinvested in the banks expansion programs. The reduced cost due to internet banking translates to higher profits, which is itself a performance indicator. The results concur with those of Alexandru (2016) who indicated that E-banking is vital in spurring development, growth and competitiveness of banks in terms of product innovation, service delivery and Profitability.

Internet Banking

The study lastly sought to establish the amount of money transferred through the internet. The findings of the study are shown in table 6.

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Table 6: Internet Banking (Kshs. Millions)

Year	2015	2016	2017	2018	2019
Internet Banking	56,692	98,142	131,592	199,042	246,492
Stdev	1050.93	1697.64	2731.18	1070.56	884.28

The findings show that the preference of internet bank as an alternative banking channel has been on the rise over the study period (2015-2019). The amount transacted through the internet increased Kshs. 56692 million in 2015 to a high of Kshs. 246492 million in 2019. Standard deviations recorded indicate that there were variations in the amount of money transferred through internet banking over the period studied.

Effect of usage of automated teller machine (ATM) on performance of commercial banks

Data was collected using mean and standard deviations of the data collected was computed and findings are as presented in table 7.

Table 7: Effect of usage of automated teller machine (ATM)

Effect of usage of automated teller machine	Mean	SD
There is high profits using ATMs contributing positively to bank annual profitability	3.00	1.360
Security when using ATMs is mostly better	3.41	1.161
It enhances efficiency and saves time as well	3.22	1.107
ATMs have low transaction and maintenance costs leading to high levels of profitability over their economic lifetime	3.29	1.078

Based on the responses, there are high profits gained when using ATMs hence contributing positively to bank annual profitability with a (Mean=3.00, SD=1.360), other respondents indicated that the security when using ATMs is mostly better with a (Mean=3.41, SD=1.161). The respondents also indicated that ATMs enhances efficiency and saves time as well with a (Mean=3.22, SD=1.107) while some respondents agreed that ATMs have low transaction and maintenance costs leading to high levels of profitability over their economic lifetime with a (Mean=3.29, SD=1.078). The findings of the study concur with those of Kumbhar (2017) who indicated that efficiency of service delivery have a momentous association with general client gratification.

Automated Teller Machine (ATM) Banking

In this section, the study sought to establish the amount of money in millions transferred through ATMs. The study findings are shown in the table 8.

Table 8: ATM Banking

Year	2015	2016	2017	2018	2019
ATM Banking (Kshs. Millions)	140,825	156,892	171,930	38,094	10,279
STDEV	1055.17	810.10	1190.08	1071.98	65.93

Source: Research Data (2022)

The volume of money transferred through ATM banking increased from Kshs. 140,825 million in 2015 to Kshs. 171,930 million in the year 2017. This was followed by a sharp decrease in the amount transacted to a low of Kshs. 10,279 Million. This implies that the choice of ATM banking as an alternative banking channel has been on the decline. This can partly be attributed to preference of other banking channels such as internet banking and m-banking which are getting popular by day.

Financial Performance (ROA)

The study set to establish the performance of commercial banks in Kenya from 2015- 2019. Return on Asset was calculated as a measure of financial performance. The findings are presented below in table 9.

Table 9: Financial Performance

Year	2015	2016	2017	2018	2019
ROA Mean	0..0308	0.0270	0.0303	0.0277	0.0264
Standard Deviation	0.0246	0.0412	0.0309	0.0300	0.0380

Source: Research Data (2022)

The study established that there is fluctuation of the financial performance of commercial banks over the study period. This can be ascertained by a look at the standard deviation arrived at. The commercial banks recorded the highest performance in 2015 with an ROA of 0.031 while the lowest performance was recorded in the year 2016 with a ROA of 0.027.

Correlation analysis

A correlation analysis was conducted to ascertain the nature of relationships among variables. As such, the data from the three independent variables together with the data from the dependent variable were correlated to obtain the correlation matrix results in table 10.

The correlation result in table 10 below shows that the respondents indicated that mobile banking and performance of commercial banks are positively related (r=.230, p=.00), agency banking and performance of commercial banks are positively related (r=.144, p=.019), internet banking and performance of commercial banks are positively related (.689, p=.000). Finally, usage of automated teller machine and performance of commercial banks are positively related (r=.278,p=.000). The result suggests that mobile banking, agency banking, internet banking and usage of automated teller machine could influence performance of commercial banks.

Table 10: Correlation analysis

		Mobile	Agency	Internet	Automated	Perf
Capital S	Pearson Correlation	1				
	Sig. (2-tailed)					
Invest D	Pearson Correlation	-.033	1			
	Sig. (2-tailed)	.591				
Liquidity M	Pearson Correlation	-.203**	-.067	1		
	Sig. (2-tailed)	.001	.277			
Credit risk	Pearson Correlation	-.075	-.025	.330**	1	
	Sig. (2-tailed)	.224	.685	.000		
Financial P	Pearson Correlation	-.230**	.144*	.689**	.278**	1
	Sig. (2-tailed)	.000	.019	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Regression results

Regression was adopted in order to try and find out the correlation between financial performance of commercial banks in Kenya and alternative banking channels in Kenya. A positive or negative correlation was expected. The findings are as shown below.

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.588[a]	.345	.335	.656

a. Predictors: (Constant), Mobile B. Agency B, Internet B, Usage of ATMs

Source: Research Data (2022)

The model summary result indicate that R=.588, this implied that the four predictor variables, moderately correlate with performance of commercial banks. The coefficient of determination; R square is .345, this indicate that the four predictors collectively accounted for 34% of the financial performance disparities in commercial banks. The other remaining percentage is accounted for variables other than the ones in the model.

Coefficients of Determination

They show the general trend of the relationship between dependent and independent variables. The results of this study are illustrated in table 12.

Table 12: Coefficients of determination

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.742	.429		8.725	.000
	Mobile B	.029	.138	.212	3.112	.005
	Agency B	.075	.175	.432	3.132	.005
	Internet B	.041	.155	.252	4.057	.001
	ATMs	.056	.152	.369	4.596	.001

a. Dependent Variable: Financial Performance (ROA)

Source: Research data (2022)

With 95% confidence level, mobile banking t=3.112, p=.005, Automated teller machines banking t=4.596, P=-001, Agency banking t=3.132, p=.005 and internet banking t=4.057, p=.001. The study produced statistically significant values with p values less than 0.05. Constant = -0.742shows that the independent variables mobile banking , ATMs banking, agency banking and internet banking were zero, the financial performance of commercial banks would be -0.742. A one unit change increase in mobile banking would lead to increase in financial performance by .029. A unit increase in ATMs banking will lead to a .056 increase in financial performance. A unit increase in agency banking would lead to .075 increase in financial performance while a unit increase in internet banking would enhance financial performance by .041.

The regression model equation can be expressed as:

$Y = -.742 + 0.\ 029X_1 + 0.\ 075X_2 + 0.\ 041X_{3} + 0.\ 056X_4$

Yi =financial performance (ROA)

X_1 = Mobile banking;

X_2 = Agency banking;

X_3 = Internet banking;

X_4 = Usage of ATMs

Analysis of variance (ANOVA)

In order to determine the goodness of fit of the regression model an analysis of variance was sought. The results of this analysis are shown in table 13.

Table 13: Analysis of variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.449	4	.362	11.312	.000^b
Residual	0.726	36	.032		
Total	2.175	40			

a. Dependent Variable: Financial Performance (ROA)
b. Independent, Mobile B, Agency B, Internet B, Usage of ATMs.

The study found out that the regression model had a significance level of 0.00%. This is an indication that the model was an ideal predictor of future financial performance of the commercial banks in

Kenya given alternative banking channels. This is because the significant value (p-value) was far much less than 5% which was used as an indicator of statistical significance.

Discussion of Findings

The objective of the study was to establish the effect of alternative banking channels have on the financial performance of commercial banks in Kenya. Return on asset was used to measure financial performance of commercial banks. The alternative banking channels considered were mobile banking, agency banking, internet banking and usage of automated teller machine. The findings of the study indicated that there was a strong (R=0.518) relationship between alternative banking channels and financial performance of commercial banks in Kenya. A 0.141 value of adjusted R-squared was arrived at.

This means that 14.1% of the total variance in financial performance of commercial banks in Kenya can be attributed to alternative banking channels. ANOVA statistics revealed that the regression model was ideal since it had a significance level of 0.0%. The study further established that mobile banking, ATMs banking, agency banking and internet banking affects financial performance of the commercial banks positively and in a statistically significant way. The findings were in line with the findings of Kumbhar (2011), Munyoki (2013), Saluja and Wadhe (2015), Ndungu (2015) and Kambua (2015) suggest that alternative banking channels affects the banks performance positively.

CONCLUSIONS AND RECOMMENDATIONS

The research concluded that there is a strong relationship between alternative banking channels and financial performance of commercial banks in Kenya. 14.1% of the changes in the financial performance or the commercial banks can be attributed to alternative banking channels. The study also concludes that mobile banking, ATMs banking, agency banking and internet banking positively affects the financial performance of commercial banks and in a significant way. From the ANOVA statistics, the study concluded that the regression model was derived is reliable and has goodness of fit.

Therefore, realigning activities of commercial banks with telecoms service providers like Safaricom and Airtel, is critical in performance of the banks. Agency banking is a significant contributor to the performance of commercial banks in Mombasa. If banks invest diligently in number of agent outlets at places especially with limited access to normal banking services, they will bring revenues by bringing in people into bank services.

The study established that mobile banking, ATMS banking, agency banking and internet banking have affects the performance of commercial banks in Kenya. Thus the study wishes to make the following recommendations for policy change: Commercial banks in Kenya should invest heavily in alternative banking channels like mobile banking, ATMs, agency banking and internet banking since this will lead to improvement in the financial performance of the banks. The Kenyan Government through the Central bank should come up with policies that create a conducive environment for commercial banks to operate in since it will translate to economic growth of the country.

Agency banking is also a significant contributor to the performance of commercial banks in Mombasa. There is need for banks to diligently adopt the agency model so as to reap its benefits. Licensing more agent outlets in remote areas where there is no access to normal banking services, training the agents on basic financial services, can translate to benefits of both the community and the bank itself. In the long run, the banks are more able to perform their economic function of availing money for development through loans. This is achieved if banks are performing.

Recommendations for further studies

Alternative banking channels only 28.2% of the economic performance could be attributed to innovation and technology. In future, a similar study should be carried to investigate other factors that affect the financial performance of commercial banks in Kenya. In the coming days, a study should also be done to investigate the challenges that commercial banks are facing when adopting alternative banking channels. This will also shed light on how these challenges can be tackled.

There is need for a comprehensive study to be undertaken regarding alternative banking channels and its overall impact on the economy, especially its effect on poverty eradication, saving culture and financial dependency. It is prudent to conduct a survey in future that covers all commercial banks in Kenya to better conclude on the effect the alternative have on the banking sector in Kenya.

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