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## **Effect of Agency Banking Services on Operational Performance of Commercial Banks in Rwanda. A Case of Bank of Kigali Plc**

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# Effect of Agency Banking Services on Operational Performance of Commercial Banks in Rwanda. A Case of Bank of Kigali Plc

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## Abstract

The study aimed to determine the effect of agency banking services on the operational performance of commercial banks in Rwanda, specifically Bank of Kigali Plc. Using a sample of 70 respondents involved in agency banking services, data was collected via questionnaires and analysed using descriptive and correlational research designs. The findings revealed that the number of agents, cash deposits, cash withdrawals, bill payment transactions and online payment transactions all have a statistically significant effect on operational performance. Therefore, the study concluded that agency banking services significantly affect the operational performance of Bank of Kigali Plc. This research contributes to understanding the role of agency banking services in enhancing the operational performance of commercial banks.

**Keywords:** *Agency Banking, Operational Performance, Commercial Banks, Kigali Plc, Rwanda*

## 1.0 Introduction

The financial sector is a catalyst for every robust economy. If it fails, the economy will simultaneously fail. However, the introduction of agency banking has played a vital role in the development of the banking sector. Banks and other institutions, which have traditionally relied on physically established branches to provide banking services, are now moving towards the adoption of internet banking, point of sales (POS), Automated Teller Machines (ATM), and recently, agency banking has been introduced to the financial market. This has consequently lowered the cost of banking. Technology has therefore created greater opportunities for service providers to offer more flexibility to customers. The introduction of agency banking has revolutionized and redefined the way banks operate. Globally, agency banking was first developed in Brazil. In our region, Kenya was the first country to introduce agency banking by amending the Kenya Banking Act 2009, which allowed banks to start using agents to deliver financial services (Ladipo, 2008). In Rwanda, it took effect in May 2012. Agency banking refers to the contracting of a retail or postal outlet by a financial institution or a mobile network operator to process bank clients' transactions. It is approved by the central bank to provide the services on behalf of the institution in the manner specified (NBR, 2011). It differs from a branch teller since it is the owner of the retail outlet who conducts transactions like deposits, withdrawals, and fund transfers, and inquiries about account balances, without reaching the bank place. Banking agents may include pharmacies, supermarkets, convenience stores, lottery outlets, and post offices (Siedek, 2008). Brazil is recognized as the pioneer of agent banking.

The trend of agent banking is evident in many countries all over the world, such as Australia where post offices are used as bank agents, France utilizing corner stores, Brazil using lottery outlets to provide financial services, and other countries like Peru, Colombia, Mexico, Pakistan, Kenya, and South Africa also started experimenting with banking agent networks. In Rwanda, agency banking was introduced in May 2012 after the publication of prudential guidelines by the National Bank of Rwanda. For the purpose of this study, the researcher has chosen Bank of Kigali PLC as a case study to prove the effect of Agency Banking on operational performance in the Banking Sector in Rwanda. Operational performance is a measure against standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility such as cycle time, productivity, waste reduction, and regulatory compliance (Kumar et al., 2011), (Swenson, et al., 2011). Achieving and sustaining operational performance is more important than ever in today's challenging economic environment. Cost pressure, changing customer expectations, stronger competitors, and other industry and market disruptions are collectively causing a tremendous strain on operational capabilities and performance. Operational performance excellence is no longer a desired end state but a near-term requirement for any successful company. Bank operational performance contributes to the operation and growth of an economy through various roles, including that of an intermediary and provider of payment settlement facilities. Banks must also execute these roles faultlessly in order to promote confidence and stability in the system. The traditional role of a bank has been that of an intermediary, that is, bringing together borrowers and lenders. This can only be done successfully and for a sustainable period with the careful management of credit, liquidity, and risk factors. Essentially, a bank is funded primarily by depositors; it has an obligation to ensure that the risk to which depositors' funds are exposed is minimized (Johnson & Susan, 2011).

## 1.2 Statement of the Problem

The Central Bank of Rwanda (BNR) recognizes the financial inclusion challenges that the country faces. These include the cost of financial services and the distance to bank branches in remote areas (NBR, 2011). Agency banking has become popular among retail banks in Rwanda due to its ability to decongest banks and save time, which has been a concern for both banks and customers. However, most people, including business owners, prefer conducting their banking services in banking halls, thus intentionally frustrating the agent banking model. These individuals should be maximizing the options available as opposed to using the traditional brick-and-mortar system. In Rwanda, agency banking has seen dramatic expansion; lower-income people no longer need to use scarce time and financial resources to travel to distant bank branches. Since agency banking transactions cost far less to process than transactions at an Automated Teller Machine (ATM) or branch, banks can make a profit handling even small money transfers and payments (Belgrave et al., 2003), (Lustsik, 2004) (Couder et al., 2020). The adoption of agency banking is mainly geared towards improving market share by attracting and retaining customers, improving operational performance, and creating a variety of services. However, it is not clear whether the adoption has led to an increase in market share and operational performance. This study, therefore, aimed at assessing the contribution of agency banking on the operational performance of commercial banks in Rwanda.

Rwanda still has 11% of the adult population who are unbanked, and most of them don't have access to financial institutions due to the long distance they need to travel to reach bank branches. Only 4 out of 11 commercial banks in Rwanda have quickly recognized that agency banking is a viable strategy for expanding formal financial services into unbanked regions (Agarwal, et al., 2018). Regionally, (Mbugua et al., 2017) looked at the importance of adopting agency banking in Kenya and concluded that security and infrastructure costs related to agency banking are vital in improving financial performance. (Nganga & Mwachofa, 2013) investigated the adoption of technology and banking agency in rural areas and noted that the customers who accessed the agency banking services were a small percentage despite the existence of agency banking services in the sector (Kishore & Sequeira, 2016). Globally, (Berger & DeYoung, 2001) investigated the expansion of bank outreach through retail partnerships in Peru. (Oburu, 2018) evaluated the impact of agency banking adoption in Mexico, and (Mwangi & Kalui, 2022) examined the role of agency banking as a diversifiable strategy by banks. Creating value and achieving a competitive edge in commercial banks heavily relies on better operational efficiency and the creativity of financial institutions (Hussain, 2014). The benefits of efficient operation in commercial banks have increased customer satisfaction, lower operation costs, and the ability to stay ahead of competition (Munguti, 2006). Therefore, by using agency banking in commercial banks, this efficient operation can be achieved. Therefore, the necessity of this study was taken into consideration by the banks that have embraced agency banking, all in answering the research question of the effect of agency banking on the operational performance of the banking sector.

## 1.3 Research Hypothesis

**H<sub>01</sub>:** Number of agents has no statistically significant effect on operational performance of Bank of Kigali Plc.

**H<sub>02</sub>:** Number of agent's deposits transactions has no statistically significant effect on operational performance of Bank of Kigali Plc.

**H<sub>03</sub>:** Cash withdrawals have no statistically significant effect on operational performance of Bank of Kigali Plc.

**H<sub>04</sub>:** Bill payment transactions have no statistically significant effect on operational performance of Bank of Kigali Plc.

**H<sub>05</sub>:** Online payment transactions have no statistically significant effect on operational performance of Bank of Kigali Plc.

**H<sub>06</sub>:** Agency banking services have no statistically significant effect on operational performance of Bank of Kigali Plc.

## 2.0 Literature Review

The literature review comprises the theoretical review and empirical review.

### 2.1 Theoretical Review

Four theories are discussed below to support the research objectives which discuss the effect of agency banking transactions on operational performance of commercial bank in Rwanda case study in Bank of Kigali Plc.

#### 2.1.1 Bank Led Theory

Bank led theory is related to study as it focus on how financial institution like bank deliver their financial services through a retail agent; where the bank develops financial products and services, but distributes them retail agents who handle all or most customer interaction (Lyman, Ivatury, & Staschen, Focus Note 38, 2006) .This model promises the potential to substantially increase the financial services outreach by using different delivery channels (Retailers/Mobile Phones) having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank based alternatives. In Model the bank retail the role of customer relations (Tomaskova, 2010). This retail agent may operate in hard to reach or dangerous areas and they lack physical security systems and special trained personal. The lack of expert training may seem a particular problem if retail agents function range beyond the cash in/cash out transactions of typical bank tellers to include in a role in credit decisions (Babar & Zeb, 2011). Banking regulation typically recognizes multiple categories of risk that bank regulators and supervisors seek to mitigate. Five of these risks are: credit risk, operational risk, liquidity risk and reputation risk. The use of retail agents also potentially raises special concerns regarding consumer protection and compliance with rules for combating money laundering and financing terrorism (Kumar et al., 2011) (Tiwari, Gepp, & Kumar, 2020). Bank led theory offers a distinct alternative to conventional branch-based banking since the customer conducts financial transactions using retail agents instead the bank branches.

#### 2.1.2 Nonbank Led Theory

In this theory customers do not deal with a bank; nor do they maintain a bank account. Instead, customers deal with nonbank firm either a mobile network, operator, or a prepaid card issuer and retail agents as the point of customer contact. Customers exchange their cash for e-money stored in a virtual e-money account on non-bank's server, which is not linked to a bank account in the individual name (Mwando S. , 2013)This model is riskier as the regulatory environment in which these nonbanks operate might not give much importance to issues related to customer identification which may lead to significant Anti Money Laundering and counter-terrorism Financing

(AML/CFT) risks. According to (Owoeye, 2023) to mitigate the e-money risk (which are peculiar to nonbank led model), necessary changes in the existing regulations are required. It starts by bringing nonbanks under financial regulatory net by giving these entities special status of some sort of quasi bank/remittance agent etc. Nonbanks are not much regulated in areas of transparency documentations and record keeping which is the prerequisite for a safe financial system.

### 2.1.3 Agency Theory

This theory was first proposed by (Ross, 1973) in the 1973. Any Agency relationship is one which one or more personal (the principal) engage another personal (Agent) to perform some services on their behalf which involves delegating some decision-making authority to the agent. The various form of agency relationship is employer (Principal) and employee (Agent); state (Principal) and ambassador (Agent); Organization (Principal) lobbyist (Agent); and shareholders (Principal) chief executive officer (Agent) (Abdelnour & El-Farr, 2023). Agency theory is founded on seven fundamental assumptions: self-interest, goal conflict, bounded rationality, information asymmetry, preeminence of efficiency, risk aversion, and information as a commodity (Onjewu, Walton, & Koliousis, 2023). These assumptions overlap and build on numerous preeminent articles and theories. Agency theory is associated with agency cost that is monitoring cost, which are incurred by shareholders (Commercial bank) to ensure that managers (Retail agent outlets) maximize wealth rather than behave on their own interest. Despite the fact that agent banking is a lower cost transaction model that unable people to use it at their convenience and save on time consumed in bank queues, the commercial banks will incur extra costs in ensuring proper training on the retail agent employee for efficiency, suitability, and satisfactory to the customers. Agency problems in commercial bank sectors; (Aduda, Kiragu, & Ndwiga, 2013) as asserts are becoming more complex as stakeholders in the banking sector.

### 2.1.4 Intermediation Theory

Financial intermediary theory is based on economic aspects of information imperfection that come up with during 1970s after seminal discoveries by (David & Njogu). Intermediation aids in the reducing the cost of completing transactions that are associated with banking operations. (Koziuk & Shymanska, 2023) posit that banks are an amalgamation of depositors offering households with financial services. The aspects of information asymmetry focus on relations of borrowers and lenders where commercial banks face challenges in the lending process; moral hazards, adverse selection, credit rationing, screening and monitoring the function of the bank. Financial intermediaries exist because they can reduce information and transaction costs that arise from an information asymmetry between borrowers and lenders.

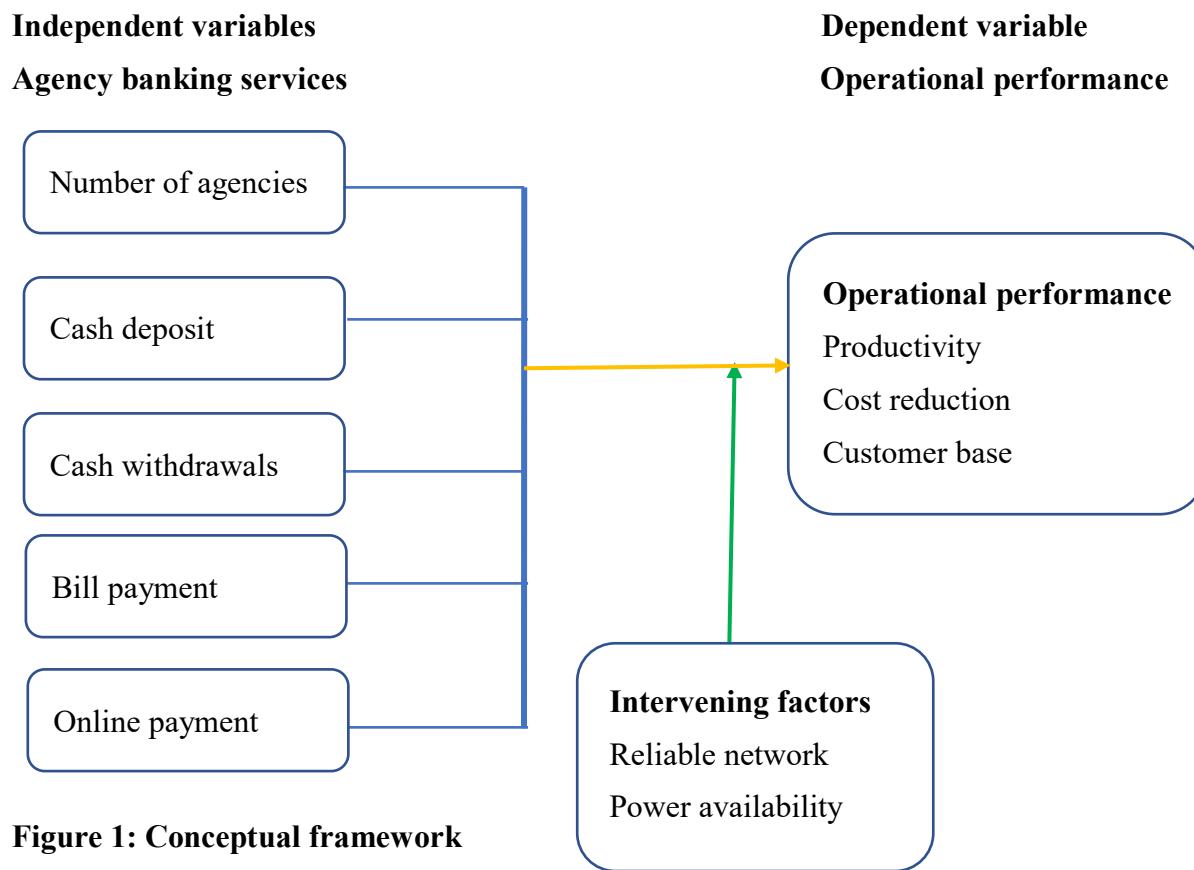
## 2.2 Empirical Review

The research conducted by Ndegwa (2017) and Mbugua (2017) highlighted the effectiveness of agency banking as a strategy for achieving operational performance among commercial banks. The studies found that geographical coverage by agents is a significant driver of operational performance, reducing transport costs for customers and the need to queue at ATMs and banking halls. The availability of liquidity to enable agents to make withdrawals is another benefit of agency banking. The application of agency banking is expected to propel financial institutions to offer banking services more cost-effectively and customer-friendly, enhancing financial access for those people who are currently not reached by financial inclusion (CBK, 2011). Han & Melecky (2013) found that in times of financial stress, a variety and broader access to use bank deposits can

greatly reduce deposit withdrawals or cause growth slowdown (Han, et al., 2013). Studies conducted by Jagongo & Molonko (2014) and Mwirigi (2010) investigated the role of agency banking operations in the financial performance of commercial banks. They found that by using agency banking, commercial banks were able to increase their transactions, including cash withdrawals, funds transfer, and deposits, from people who were considered to be of low income. Bankable Frontier Associates (BFA) and Bill & Melinda Gates Foundation (Lehman, 2010) examined the role played by agents in widening access to financial services in Brazil. The study concluded that agency banking had brought a significant aspect to enhancing the penetration of banking products to the unbanked market. The study also concluded that the agency banking model has not only demystified banking among low-income populations but it also has placed beneficiaries on a sure path towards electronic money banking since they perform transactions over a bank device, to make it possible for customers to transform funds to electronic form; an important role in enhancing financial sector deepening (Dorine & Fred, 2013).

### 2.3 Conceptual Framework

Conceptual framework has been developed to establish the influence of independent variable of operation performance of listed financial institutions.



**Figure 1: Conceptual framework**

### 3.0 Research Methodology

The study adopted a correlational research design, considering both quantitative and qualitative data. The target population was the staff of BANK OF KIGALI PLC, comprising 70 employees from various units such as payment, retail, finance, and budgeting departments. The entire population was taken as the sample using quota sampling techniques. Primary data was collected

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using questionnaires, with their reliability tested using Cronbach's Alpha coefficient. A score greater than 0.7 was considered an acceptable level of internal consistency (Orodho, 2004). Secondary data was gathered by reviewing published financial reports for the relevant years. Data analysis was conducted using both descriptive and inferential statistics. Descriptive statistics, including percentages, means, and standard deviations, were used to describe data characteristics. Further, regression analysis was used to deduce meaning from the data. The Statistical Package for Social Science (SPSS V 21.0) software was used to analyze the quantitative data. The findings were summarized and presented using tables, graphs, and charts.

#### 4.0 Findings

The inferential statistics were produced using a combination of correlation analysis and a linear regression model, as detailed in the techniques section. Using Pearson's correlation, the relationship between the independent and dependent variables was investigated. Furthermore, Pearson's correlation coefficients ( $r$ ), which vary from -1 to +1, indicate whether there is a positive or negative link.

**Table 1: Correlation Analysis**

	Number of agents	Cash deposits	Cash withdrawals	Bill payment	Online payment	Operational performance
Number of agents	1.000					
Cash deposits	.653** 0.000	1.000				
Cash withdrawals	.514** 0.000	.683** 0.000	1.000			
Bill payment	.682** 0.000	.636** 0.000	.619** 0.000	1.000		
Online payment	.936** 0.000	.725** 0.000	.528** 0.000	.647** 0.000	1.000	
Operational performance	.631** 0.000	.947** 0.000	.756** 0.000	.591** 0.000	.636** 0.000	1.000

The main objective of the study was to establish the effect of agency banking services on operational performance of Bank of Kigali Plc. The results from the table 1 above indicates that number of agency and operational performance have a strong positive correlation ( $r = 0.631**$ ,  $p = 000$ ,  $n = 70$ ). It is also established that cash deposits and operational performance have a strong positive correlation ( $r = 0.947**$ ,  $p = 000$ ,  $n = 70$ ). The findings established that cash withdrawals and operational performance have a strong positive correlation ( $r = .756**$ ,  $p = 000$ ,  $n = 70$ ). It was also indicated that bill payment services and operational performance have a strong positive correlation ( $r = 0.591**$ ,  $p = 000$ ,  $n = 70$ ). The study results also discovered that online payment services and operational performance have a strong positive correlation ( $r = 0.636**$ ,  $p = 000$ ,  $n = 70$ ). Therefore, agency banking services have a strong positive correlation with the operational performance of Bank of Kigali Plc.

**Table 2: Model summary**

Model	R	R	Adjusted	Std.				Change Statistics		
	Square	Square	R Square	Error of the Estimate	R Square	F	df1	df2	Sig. F Change	
					Change	Change				
1	.980 <sup>a</sup>	.961	.958	1.33572	.961	314.828	5	64	.000	

The overall prediction of independent variables (number of agents, cash deposit, cash withdrawals, bill payment services, and online payment services) on the dependent variable (operational performance of Bank of Kigali Plc) is 0.980 which signifies a positive and strong relationship. The coefficient of determination is indicated by R square of .961 indicating that the predictors considered in the model can explain 96.1% of the changes in operational performance of Bank of Kigali Plc. The study shows that there are other factors that explain 3.9% of the change in operational performance of Bank of Kigali Plc that are not captured in this model.

**Table 3: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2808.514	5	561.703	314.828	.000 <sup>b</sup>
	Residual	114.186	64	1.784		
	Total	2922.700	69			

The findings from the ANOVA help in indicating the weakness or the strength of the model. According to Cohen & Sayag (2015), an insignificant F-test indicate a weak regression model. From findings obtained in table 4.33, the researcher came to the conclusion that there isn't enough evidence, with a P-value of  $.000 < 0.05$ , to support the claim that agency banking services have had no significant effect on the operational performance of Bank of Kigali Plc. This is because F calculated (314.828) is greater than F critical (2.358) and, as a result, falls in the rejection region.

**Table 4: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.042	1.299		.032	.005
	Number of agents	.715	.098	.550	7.316	.000
	Cash deposits	.982	.044	.967	22.427	.000
	Cash withdrawals	.203	.033	.221	6.157	.000
	Bill payment	.150	.039	.146	3.837	.000
	Online payment	.753	.098	.603	7.656	.000

Table 4 provides the summary of results of regression analysis for the effect of agency banking services (number of agents, cash deposit, cash withdrawals, bill payment services, and online payment services) on the operational performance of Bank of Kigali Plc.

The results indicated that there is a positive and significant effect of number of agents, cash deposit, cash withdrawals, bill payment services, and online payment services on the operational performance of Bank of Kigali Plc ( $\beta_1=0.550$ ,  $t=7.316$ ,  $p=.000 < 0.05$ ,  $\beta_2=0.967$ ,  $t=22.427$ ,  $p=0.000 < 0.05$ ,  $\beta_3=0.221$ ,  $t=6.157$ ,  $p=0.000 < 0.05$ ,  $\beta_4=0.146$ ,  $t=3.837$ ,  $p=0.000 < 0.05$ ,  $\beta_5=0.603$ ,  $t=7.656$ ,  $p=0.000 < 0.05$ ). This implies that 1% increase in number of agents, cash deposit, cash withdrawals, bill payment services, and online payment services leads to 0.550, 0.967, 0.221, 0.146, and 0.603 increase in the operational performance of bank of Kigali Plc respectively.

Therefore, the regression model or equation of the findings of this study is presented as follows:

$$Y = 0.042 + 0.550NA + 0.967CD + 0.221 CW + 0.146BP + 0.603OP + 1.299$$

Where:

Y: Operational performance

NA: Number of agents

CD: Cash deposits

CW: Cash withdrawals

BP: Bill payment

OP: Online payment

## 5.0 Conclusion

The model summary results show that 96.1% of the variations in the operational performance of Bank of Kigali Plc can be explained by the model, while other variables not captured by this model can explain 3.9% of the variations. The F value of the model produces a p-value of .000, which is significantly different from zero. This means that the model is significant in explaining the operational performance of Bank of Kigali Plc in Rwanda. Comparing the value of F calculated (314.828) to that of F critical (2.358), the researcher concluded that there is significant evidence to suggest that agency banking services have had a significant effect on the operational performance of Bank of Kigali Plc in Rwanda.

## 6.0 Recommendations

Upon careful examination of the research findings, the researcher proposes the following recommendations for all stakeholders in the banking sector, particularly those in charge of agency banking services in Rwanda. These recommendations provide valuable insights into optimizing agency banking services and enhancing the overall operational performance of banks. Commercial banks are recommended to select and train agents carefully to ensure they have the necessary skills, integrity, and understanding of banking services. They also need to implement cost-effective strategies to manage operational expenses and ensure the sustainability of agency banking operations. Banks should deploy agents in strategic and convenient locations, including rural areas and places with limited banking infrastructure. Moreover, they must conduct awareness campaigns to educate customers about the benefits and security of using agency banking services. Banks should also implement robust security protocols to protect both customer data and financial

transactions. Further, they need to strengthen and implement risk management strategies to safeguard against fraud and operational risks.

## References

Agarwal, S., Kigabo, T., Minoiu, C., Andrea, F., Presbitero, & André F, S. (2018). *Financial Inclusion Under the Microscope*. 2018 International Monetary Fund.

Mbugua., & Omagwa, I., & Omagwa. (2017). Agency banking and financial performance of commercial banks in Embu County, Kenya. *International Academic Journal of Economics and Finance*, 2(3), 348-367. Retrieved from [https://www.iajournals.org/articles/iajef\\_v2\\_i3\\_348\\_367.pdf](https://www.iajournals.org/articles/iajef_v2_i3_348_367.pdf)

Aduda, J., Kiragu, P., & Ndwiga, J. (2013). The Relationship between Agency Banking and Financial Performance of Commercial Banks in Kenya. *Journal of Finance and Investment Analysis*, 2(4), 97-117.

Babar, H., & Zeb, G. (2011). *CAMELS rating system for banking industry in Pakistan: Does CAMELS system provide similar rating as PACRA system in assessing the performance of banks in Pakistan?*. Retrieved from <https://www.diva-portal.org/smash/record.jsf?pid=diva2:448378>

Berger, A., & DeYoung, R. (2001). The effects of geographic expansion on bank efficiency. *Journal of financial services research*, 19, 163-184.

David, J., & Njogu, L. (n.d.). Effect of Credit Financing on Financial Performance of Small and Medium Enterprises (Smes) in Thika Town, Kiambu County. *International Journal of Finance*, 8(4), 1-18.

Dorine, A., & Fred , M. (2013). *The Role of Agency Banking in Enhancing Financial Sector Deepening in Emerging Markets: Lessons from the Kenyan Experience* (Vol. Vol.5). The International Institute for Science Technology and Education (IISTE). Retrieved from <http://www.iiste.org/>

Hussain, S. (2014). *An analysis of the impact of 'substantially heightened' capital requirements on large financial institutions* (Vol. 2). Booth School of Business, University of Chicago, mimeo,.

Jagongo, A., & Molonko, B. (2014). Bottom of the Pyramid Strategy and Financial Performance of Commercial Banks:An Assessment of Agency Banking Operations in Kenya. Retrieved from <http://ir-library.ku.ac.ke/handle/12345678>

Kishore, S., & Sequeira, A. (2016). An empirical investigation on mobile banking service adoption in rural Karnataka. *Sage Open*, 6(1).

Koziuk, V., & Shymanska, O. (2023). Financial Intermediation and Economics. *Herald of Economics*, 2, 217-232.

Kumar, V., Maull, R., & Batista, L. (2011). The impact of operations performance on customer loyalty. *Service Science*, 3(2), 158-171.

Lyman, T., Ivatury, G., & Staschen, S. (2006). *Use of Agency Banking for Poor; Rewards, Risks and regulation*. Washington, D.C.: CGAP. Retrieved from <http://dev.cgap.org/p/site/c/template.rc/1.9.2585/>

Mbugua, I. (2017). Agency banking and financial performance of commercial banks in Embu County, Kenya. *International Academic Journal of Economics and Finance*, 348-367.

Munguti, K. (2006). *The effect of mobile banking on the competitive advantage of commercial banks in Kenya*. United States International University-Africa.

Mwando, S. (2013). Contribution of agency banking on financial performance of commercial banks in Kenya. *Journal of Economics and Sustainable Development*, 4(20), 26-34.

Mwangi, T., & Kalui, F. (2022). Agency banking as an Alternative Banking Services Alternative Banking Services Delivery Channel and Financial Performance of Commercial Banks in Kenya. *Journal of Finance and Accounting*, 2(2), 1-10.

Mwirigi, P. (2010). *An Assessment of Credit Risk Management Techniques adopted by Microfinance Institutions in Kenya*. University of Nairobi.

National Bank of Rwanda. (2011). *Annual Report 2011*. Rwanda: BNR. Retrieved from file:///C:/Users/Administrator/Downloads/Annual\_Report\_2011.pdf

Nganga, S., & Mwachofi, M. (2013). Technology adoption and the banking agency in rural Kenya. *Journal of Sociological Research*, 4(1).

Owoeye, A. (2023). A Critical Evaluation of Central Bank of Nigeria (CBN) Cash-less Policy, Currency Redesign, Financial Performance and Macroeconomy: The Socio-Economic Ramifications perspectives. *Central European Management Journal*, 31(2), 1134-1146.

Ross, S. (1973). The economic theory of agency: The principal's problem. *The American economic review*, 63(2), 134-139.

Tiwari, M., Gepp, A., & Kumar, K. (2020). A review of money laundering literature: the state of research in key areas. *Pacific Accounting Review*, 32(2), 271-303. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/PAR-06-2019-0065/full/html>