

## Effect of M-Shwari Loan Pricing on Uptake of Loans from NCBA in Meru County

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**How to cite this article:** Mutegi, J., Gichohi, P., & Rintari, N. (2022). Effect of M-Shwari Loan Pricing on Uptake of Loans from NCBA in Meru County. *Journal of Strategic Management*, 2(1), 25-34.

### Abstract

In the last decade, Kenya has witnessed remarkable growth in digital lending products and platforms. However, the impact of these digital lending products on uptake of loans remains under-researched. The purpose of the study was to determine the effects of M-Shwari loan pricing on uptake of loans from NCBA Bank Kenya PLC in Meru County. The study was guided by the financial intermediation theory. The study adopted a descriptive survey research design. The target population was NCBA Bank Kenya PLC Meru Branch customers who utilize the bank's M-Shwari digital credit. The sample size was 380 respondents who were selected using a simple random sampling technique. Quantitative data was analyzed through descriptive and inferential statistics. Qualitative data was analyzed thematically using conceptual content analysis. The study found that M-Shwari's loan pricing was negatively and significantly related to the uptake of bank loans. The study concluded that M-Shwari's loan pricing had a negative and significant relationship with uptake of bank loans among NCBA Bank Kenya PLC customers in Meru County. The study recommends that NCBA Bank Kenya PLC managers should charge lower interest to their customers, and should create awareness among their customers on considerations made in credit scoring of digital loans customers.

**Keywords:** *M-Shwari loan pricing, uptake of loans, NCBA bank*

### 1.0 Introduction

The current highly dynamic and competitive banking environment has led to the need for improved strategies, organizational changes, and enhanced operations for banking firms to grow and survive. Consequently, all forms of businesses, banks included, are constantly being pressured to rapidly and continuously improve their management strategies (Muriithi & Louw, 2017). One of the most important areas that banks need to improve on is their financial operations where they are expected to ensure the development and implementation of sound financial strategies and operations that would help them manage their business risks and improve their organizational performance (Románova & Kudinska, 2016). Financial intermediation remains the core function of banks to which lending is a critical arm (Murunga, 2017).

Uptake of bank loans refers to the amounts of funds loaned out to individual bank customers (Akande, 2019). According to Moussa and Chedia (2016), the main indicators of uptake of bank loans are availability of loan funds for lending on the part of the banks and bank customers' capacity/ability to repay advanced loans. Four attributes characterize the uptake of bank loans. These include loan amounts accessible which denote the maximum amount of loan

funds that a borrower is eligible for as determined by the loan provider and loan pricing which denotes the cost of credit offered by a financial institution or loan provider (Alkhazaleh, 2017). It also includes loan repayment period which is the period allowed to the borrower for complete repayment of loan amount taken (Moussa & Chedia, 2016), and loan default consequences which refer to courses of action(s) taken by a loan provider when a borrower fails to repay borrowed funds within the allowed period (Cheston & Allison, 2016).

Loan pricing refers to the cost of credit offered by a financial institution or loan provider (Alkhazaleh, 2017). Loan pricing, according to Singh (2018), entails the determination of the cost at which funds will be loaned out. In essence, it relates to the determination of a loan's interest rate (Amondo, 2019). In their intermediation role, banks and other financial institutions provide financial resources from the units with surplus resources to the ones whose resources are in deficit. This is however done at a cost. The financial institutions include a charge on the loaned funds and this charge is commonly referred to as interest rate which denotes the cost of the credit (Moussa & Chedia, 2016). Loan pricing is one of the important features of bank loan products. The significance of loan pricing in bank lending activities arises from the fact that it is through loan pricing that banks, and lenders in general, make their money (Carlson, 2017). Interest rates, therefore, represent the price that a borrower has to pay to acquire much-needed financial resources from the financial providers. Through loan pricing, lenders can determine the interest rate chargeable on their loan products. In most instances, the interest rates are expressed as annual percentage rates (APR) though they can also be expressed in monthly or weekly rates (Moreno & Estrada, 2019).

### ***Problem Statement***

The CBK, through the annual bank supervision reports, indicates that the Kenyan banking sector remains stable, resilient, and robust. As of December 2018, the gross loans in this sector and its advances totaled Ksh. 2.49 trillion. This represented 52.1% of the country's real GDP (CBK, 2019). Despite such a remarkable contribution to the economy, a closer review of the uptake of these loans and advances reveals worrying trends. The CBK's 2018 Bank Supervision Annual Report showed that the bulk (about 75%) of the gross loans in this sector and its advances were to the government and large corporations. The report further points out that, over the last 5 years the gross loans in this sector and its advances increased by 32.4% from Ksh.1.88 trillion in 2014 to Ksh. 2.49 trillion in 2018, the uptake by individual borrowers declined from 32.6% in 2014 to 14.8% in 2018 (CBK, 2019). Similarly, a survey by the World Bank in 2018 showed that over 80% of Kenya's bank's loan portfolio was to the government and other large corporations, denoting low uptake of bank loans among individual borrowers (World Bank, 2018). This clearly illustrates gaps in uptake of loans, which warrants further investigation.

While digital lending platforms, such as M-Shwari from NCBA, represent a tremendous step forward in driving uptake of bank loans, the uptake of bank loans in the country, especially among the low-income groups is likely to remain suboptimal owing to their lack of understanding of the products, particularly with respect to basic terms and conditions such as loan pricing, amount accessible, repayment period and consequences of default (World Bank, 2018). Further, most of the local studies have focused on the impact of mobile lending services on Kenyan commercial banks' financial performance (Abongo, 2016; Ndagijimana, 2017; Mohamed, 2019). There is paucity of empirical information as to the effects of these revolutionary digital lending platforms on uptake of bank loans in the country. To address this research gap, this research sought to determine the impact of M-Shwari loan pricing on the uptake of bank loans from the NCBA Bank Kenya PLC.

### ***Research Hypothesis***

H<sub>0</sub>. M-Shwari's loan pricing has no significant effect on uptake of bank loans among NCBA Bank Kenya PLC customers in Meru County.

### **2.0 Literature Review**

The financial intermediation theory was developed by Gurley and Shaw in 1960 (Allen & Santomero, 2017). The theory postulates that the existence of financial intermediaries is necessary as the lower the information asymmetry and the expenses of the transaction that is often a result of the information asymmetry between lenders and borrowers. Thus the financial intermediaries allow the financial markets to function more efficiently. This theory, therefore, provides the role played by intermediaries in the financial sector and the economy (Leland & Pyle, 2017). This theory aims to give the reasons for the existence of financial intermediaries. In capitalist countries, investors and savers cannot do without intermediaries which make them a crucial part of these economies as they affect how these economies operate (Pyle, 2011). Financial intermediaries help in ensuring there is equitable distribution of economic resources by redirecting financial resources from savers (or surplus spending units) to individuals and companies that need the funds for consumption and/or investment. In this sense, financial intermediation is shown as how the financial firms bring together units with deficits depending on those whose spending is in surplus (Levinson, 2018).

This theory is based on two foundations where the first provides that financial intermediaries are important in an economy as they provide liquidity to the banking institutions. According to the second foundation, financial intermediaries are able can change the risk levels of different investments. These two functions of these intermediaries allow for the reduction of transaction costs when intermediaries intervene in the relationship between borrowers and lenders which results in improved allocation of the available resources. Further, it has been noted that the ability of the intermediaries to change the risk levels of assets minimizes the occurrence of market failure and also leads to reduced information asymmetry (Bethune et al., 2019).

This theory uses economic models of complete and perfect markets when it comes to the allocation of resources. The basic assumption of the theory is that there is no competitiveness in the market and the market information is accessible to all players in the market thus there are no transaction expenses in getting this information. But in the real world, things are different since the modern markets are characterized by imperfections including asymmetrical information which results in high transaction expenses and also encourages competition. The role of financial intermediaries amid these imperfections is to get rid of them (Greenbaum et al., 2019). According to Sakuhuni (2017) and Akande (2019), intermediaries are crucial as they get rid of asymmetrical information monitoring and provide lenders with information they have collected from borrowers, and also screening borrowers using various means to determine their creditworthiness. Further, intermediaries cultivate good relationships with customers as they commit to their customers who eliminate moral hazards and adverse selection challenges (Leland & Pyle, 2017).

The downside of this theory is that although it applauds the role played by intermediaries in getting rid of asymmetrical information and transaction costs, it fails to account for other important dynamics of financial markets such as risk management (Pyle, 2011). Questioning whether informational asymmetry is the principal explanatory variable of the financial intermediation process - does not imply denial of the pivotal role information plays in the financial intermediation process. On the contrary, under the strong influence of modern communication technologies and the worldwide liberalization of financial services, the

character of the financial intermediation process is rapidly changing (Leland & Pyle, 2017). It, therefore, appears that informational asymmetries are not well-integrated into a dynamic approach to the development of financial intermediation and innovation. As such, the theory fails to evolve into a general and coherent explanation of what is the basic function of financial intermediaries in the markets and the economy as a whole (Scholtens & Van Wensveen, 2015).

The financial intermediation theory is crucial for this study as it points out the significance of banks' financial intermediation on its role in value addition to the economy and the financial sector. Digital credit products such as M-Shwari are innovations aimed at enhancing and facilitating this role. These digital lending platforms provide an alternative channel for banks to mobilize deposits and lend these funds to spending units in need of the funds. This way, the banks can further their intermediation role. Loan pricing, loan repayment periods, and loan default risks are crucial variables in banks' intermediation role with higher credit costs being associated with shorter repayment periods and higher default risks while lower credit costs are associated with longer repayment periods and lower default risks. Studies by Cheston and Allison (2016), Musha (2018), Akande (2019), and Agwu (2019) also used this theory in their reviews of uptake of loans. There is no doubt that the banks' financial intermediation role is evidenced by the uptake of bank loans within society.

### ***Empirical Review***

When it comes to the provision of credit facilities, loan pricing is considered one of the critical activities (Lore, 2019). Given that a rise in access to finances or loans can help reduce poverty and enhance development the poor will be able to smoothen out shocks that may be due to diseases, adverse weather conditions, or a rise in the prices of food. They can also help grow businesses, increase household income and help cope with emerging risks, credit facilities must be appropriately priced (Cheston & Allison, 2016). High costs of credit are known to adversely affect the uptake of bank loans, particularly among the low-income and underserved groups which in turn slows poverty eradication and economic growth, as individuals and businesses lack much-needed funds to meet their personal and business needs (Björkegren & Grissen, 2018).

In loan pricing, interest rates provide the level of premium lenders will charge you on the loan for a given duration. If the interest rate is high, the loan is expensive and the opposite is also true (Hwang & Tellez, 2016). Loans interest can be varied or fixed. The latter remains constant (or unchanged) over the entire duration of the loan while a variable interest rate fluctuates or changes during the loan repayment period mainly due to changes in the micro or macro-economic environment (Amondo, 2019). Ordinarily, lending rates are a core determinant of bad or nonperforming loans. A rise in the interest rates makes the loan payment ability weak which leads to a higher risk of the borrower increasing the risk of a borrower defaulting on repayment, therefore, occasioning a rise in non-performing loans and bad loans. As such, loan interest rates positively correlate to non-performing loans (Olawale & Akinwumi, 2018). Several reasons could occasion high-interest rates. These could be classified as either supply-side or demand-side factors. Supply-side factors include poor competition, market risks, regulatory controls, high transportation costs because of costly telecommunications, high fixed and operating expenses, and diseconomies of scale because of small markets. The demand side factors (borrower-related factors) include borrowers' lack of consistent income, lack of collateral, poor credit score, and poor credit history, among others (Njoroge, 2017).

This section provides a review of the empirical literature on loan pricing and its effect on the uptake of loans. In an empirical study conducted in India, Singh (2018) assessed bank credit

uptake in rural areas. The focus of the study was to evaluate loan utilization in rural India and validate the associated factors. The study targeted a population of 65,500 residents of a rural township in Southern India. The stratified random sampling method helped in choosing the final sample of 314 respondents. In this study, all the respondents concurred that loan pricing as measured using loan interest rates affected their uptake of bank credits to a great extent. The respondents were unanimous that loan interest rate was the single most important determinant that affected their bank credit uptake. In addition, a statistically significant unfavorable association between interest rates level and demand for bank credit was established. The research concluded that interest rates were a significant predictor of bank credit demand and uptake in rural India. The current study seeks to validate these findings based on a local population. However, while the aforementioned study dwelt on bank loans delivered through conventional means, the current study focuses on bank loans offered on digital lending platforms.

### 3.0 Methodology

The study adopted a descriptive survey research design. The target population was NCBA Bank Kenya PLC Meru Branch customers who utilize the bank's M-Shwari digital credit. Given the study population of 38,000 M-Shwari customers, the sample size was 380 respondents who were selected using a simple random sampling technique. A validated self-administered questionnaire was used to collect the study data. Quantitative data was analyzed through descriptive and inferential statistics. Qualitative data was analyzed thematically using conceptual content analysis.

### 4.0 Results and Discussion

#### *Reliability Test*

The coefficients of reliability for each Likert scaled item were computed and the results are presented in Table 1.

**Table 1: Reliability results**

Variables	Items	Cronbach's Alpha	Decision
M-Shwari's loan pricing	6	0.799	Reliable
Uptake of bank loans	2	0.710	Reliable

Results in Table 1 showed that M-Shwari's loan pricing had a value of 0.799 and uptake of bank loans had a value of 0.710. The values for each construct were all higher than 0.7. This suggested that the study variables were reliably measured by the items. All of them were employed in the analysis that came next. A Cronbach alpha of 0.7 and higher is regarded as being reasonably sufficient for statistical analysis (Sekaran & Bougie, 2013).

#### *Descriptive statistics on M-Shwari's loan pricing*

The study sought to establish the effects of M-Shwari's loan pricing on uptake of bank loans among NCBA Bank Kenya PLC customers in Meru County. The respondents were asked to rate the items measuring the concept of M-Shwari's loan pricing. The items were mainly about the interest charged, credit scores, and other charges. The scale used was: 1= strongly disagree, 2=disagree, 3= neutral, 4=agree, and 5= strongly agree. Table 2 shows the outcome.

**Table 2: M-Shwari's loan pricing**

Items (N=263)	1	2	3	4	5	M	Std. dev
I feel that the interest charged on M-Shwari loans is high	6(2.3%)	16(6.1%)	5(1.9%)	117(44.5%)	119(45.2%)	4.2	0.9
The relatively high-interest rates of M-Shwari loans adversely affect my borrowing capacity on the platform	14(5.3%)	16(6.1%)	4(1.5%)	107(40.7%)	122(46.4%)	4.2	1.1
I would consider applying for larger loan amounts if the digital loans interest rates were not that high	4(1.5%)	11(4.2%)	3(1.1%)	130(49.4%)	115(43.7%)	4.3	0.8
I am not aware of the considerations made in credit scoring of digital loans customers	6(2.3%)	13(4.9%)	8(3%)	127(48.3%)	109(41.4%)	4.2	0.9
Other fees charged on loan amounts applied for, in addition to the loans interest rates, make digital loans to be expensive	9(3.4%)	13(4.9%)	7(2.7%)	111(42.2%)	123(46.8%)	4.2	1.0
I am dissatisfied with the high-interest rates charged on M Shwari loans	11(4.2%)	19(7.2%)	6(2.3%)	124(47.1%)	103(39.2%)	4.1	1.0
Aggregate mean						4.2	1.0

The majority of respondents, 236 in total (89.7%), agreed with the statement that they believe the interest imposed on M-Shwari loans is high, according to the results in Table 4.4. Further findings revealed that the majority of the 229 respondents (87.1%) agreed with the statement that my ability to borrow on the platform is negatively impacted by the M-Shwari loans' comparatively high-interest rates. The majority of the 245 respondents (93.1%) who participated in the survey agreed with the statement that if the interest rates on digital loans were lower, they might consider applying for larger loans. The majority of the clients believed that the interest rates on loans were excessively high, which limited their ability to access more credit, according to the data. Carlson (2017) argued that lenders in general, make their money through loan pricing. As such, for banks to make a high profit, they have to charge higher interest rates. Björkegren and Grissen (2018) argued that high costs of credit are known to adversely affect the uptake of bank loans, particularly among the low-income and underserved groups. This implied that the demand for credit was reduced with an increase in the cost of credit.

Further findings revealed that 236 respondents, or 89.7%, agreed that they were unaware of the factors taken into account when evaluating consumers for digital loans. The majority of respondents, 234 (89.0%), agreed with the statement that the cost of digital loans is determined by various fees assessed on loan amounts requested in addition to the loan interest rates. According to additional findings, the majority of the 227 respondents (86.2%) agreed with the statement that they are unhappy with the high-interest rates applied to M Shwari loans. This implied that most of the respondents were not happy with the interest rates charged on loans. According to Hwang and Tellez (2016), if the interest rate is high, the loan is expensive and

the opposite is also true. The findings also agreed with Singh's (2018) assertion that loan interest rate was the single most important determinant that affected bank credit uptake.

#### *Descriptive statistics on Uptake of bank loans*

The dependent variable in this study was the uptake of bank loans among NCBA Bank Kenya PLC customers. It was requested of the responders specify the range of bank loan amounts.

**Table 3: Range of Bank Loan**

	Frequency	Percent (%)
Below Kshs. 500	6	2.3
Kshs. 500 — Kshs. 1000	58	22.1
Kshs. 1000 — Kshs. 5,000	119	45.2
Above Kshs. 5,000	80	30.4
Total	263	100

Results in Table 3 showed that 119(45.2%) had Kshs. 1000 to Kshs. 5,000 bank loans, 80(30.4%) of the respondents had above Kshs. 5,000 bank loans, 58(22.1%) had Kshs. 500 to Kshs. 1000 while 6(2.3%) had less than Kshs 500 bank loans. This implied that most customers had over Ksh 1000 bank loans. The respondents were further asked to indicate how frequently they borrow on the M-Shwari platform.

**Table 4: Frequency of Borrowing**

	Frequency	Percent (%)
Weekly basis	13	4.9
Fortnight basis	24	9.1
Monthly basis	226	85.9
Total	263	100

Results in Table 4 showed that 226(85.9%) borrowed loans on Mshwari on monthly basis, 24(9.1%) borrowed loans on Mshwari on a fortnight basis and 13(4.9%) borrowed loans on weekly basis. This implied that the most used frequency of borrowing by customers was monthly. Akande (2019) identified borrowing and repayment frequency as key indicators of loan uptake among borrowers.

The respondents were further asked about ways through which they grow their M-Shwari loan limits. Majority of the respondents noted that they often buy credit using Mpesa, increased the number of transactions made per day, and also increased daily sending of many. This means that to increase M-Shwari loan limits, one needs to increase the number of transactions per day.

When asked to suggest possible interventions that if taken may enhance the uptake of digital loans on the M-Shwari platform, majority of the respondents noted that following: lower lending rates, extended grace period, long repayment period, and non-listing at the CRB. The respondents considered the above interventions as incentives for increased uptake of digital loans on the M-Shwari platform. Alkhazaleh (2017) and Rababah (2015) identified four attributes of uptake of bank loans including loan amounts accessible, interest charged, loan repayment, and loan default consequences.

#### *Hypothesis Testing using Correlation Results*

To ascertain the relationship between the independent and dependent variables, a correlation analysis was performed. The results were also used in hypothesis testing. Table 5 shows the correlation results.

**Table 5: M-Shwari loan pricing and uptake of loans: Correlations**

	Uptake of bank loan	Loan pricing
Uptake of bank loan	1	
Loan pricing	-.511**	1
	.000	

\*\* Significance at the 0.01

Table 5 showed that there was a negative and significant correlation between M-Shwari's loan amounts pricing ( $r=-0.511$ ,  $p=0.000$ ). According to the third theory, Meru County customers of NCBA Bank Kenya PLC are not significantly impacted by M-Shwari's loan pricing while applying for bank loans. The p-value was less than 0.000, hence the hypothesis was disproved. Therefore, M-Shwari's loan pricing has a considerable impact on Meru County clients of NCBA Bank Kenya PLC taking out bank loans. The study's findings concurred with those of Yunus (2019), who discovered a detrimental and statistically significant relationship between the cost of credit and loan uptake.

## 5.0 Conclusion

The study concluded that M-Shwari's loan pricing had a negative and significant relationship with uptake of bank loans among NCBA Bank Kenya PLC customers in Meru County. In addition, the interest charged on Mshwari loans was high and this affected the borrowing capacity of customers on the platform. The study also concluded that the customers were not aware of the considerations made in credit scoring of digital loan customers.

## 6.0 Recommendations

The study found that the interest charged on Mshwari loans was high. Therefore, the study recommended that NCBA Bank Kenya PLC managers may charge lower interest to their customers so that they can attract more customers. The study recommends that NCBA Bank Kenya PLC managers should create awareness among their customers on considerations made in credit scoring of digital loan customers. Training forums may be organized by NCBA Bank Kenya PLC for their customers.

## References

- Akande, O. M. (2019). An empirical analysis of determinants of bank loan uptake in Nigeria. *International Journal of Economics and Finance*, 8(5), 32-39. <https://doi.org/10.1206/ijef.v3q8p121>
- Alkhazaleh, A. M. K. (2017). Factors may drive the commercial banks lending: evidence from Jordan. *Banks and Bank Systems*, 12(2), 31-38. [http://dx.doi.org/10.21511/bbs.12\(2\).2017.03](http://dx.doi.org/10.21511/bbs.12(2).2017.03)
- Allen, F., & Santomero, A. M. (2017). The theory of financial intermediation. *Journal of Banking & Finance*, 21(12), 1461-1485. [https://doi.org/10.1016/S0378-4266\(97\)00032-0](https://doi.org/10.1016/S0378-4266(97)00032-0)
- Agwu, E. M. (2019). Empirical determinants of consumers' uptake of bank loans in Nigeria. *West African Journal of Industrial and Academic Research*, 4(1), 83-89. <https://www.ajol.info/index.php/wajiar/article/view/145908>



- Amondo, E. (2019). Effect of interest rates on uptake of bank credit in Uganda. *International Business Research*, 3(1), 45-53. <https://doi.org/10.1237/ibr.2019.07.4333>
- Bethune, Z., Sultanum, B., & Trachter, N. (2019). *An information-based theory of financial intermediation*. Federal Reserve Bank of Richmond. <https://doi.org/10.21144/wp19-12>
- Björkegren, D., & Grissen, D. (2018, May). *The potential of digital credit to bank the poor*. [Conference Proceedings]. In AEA Papers and Proceedings (Vol. 108, pp. 68-71). <https://doi.org/10.1257/pandp.20181032>
- Carlson, S. (2017). *Dynamic Incentives in Credit Markets: An Exploration of Repayment Decisions on Digital Credit in Africa* Department of Economics. [https://doi.org/10.1118/jmp\\_20180101](https://doi.org/10.1118/jmp_20180101)
- Cheston, S., & Allison, L. (2016). Determinants of bank credit uptake. *Journal of Banking & Finance*, 7(4), 91-98. <https://doi.org/10.1309/jbf.g94168>
- Greenbaum, S. I., Thakor, A. V., & Boot, A. W. (2019). *Contemporary financial intermediation*. Academic Press. <http://dx.doi.org/10.1016/B978-0-12-405208-6.00001-2>.
- Hwang, B. H., & Tellez, C. (2016). *The proliferation of digital credit deployments*. <https://www.cgap.org/research/publication/proliferation-digital-credit-deployments>
- Leland, H., & Pyle, D. (2017). Informational asymmetries and financial intermediation. *The Journal of Finance*, 17(3), 81-89. <https://doi.org/10.2307/2326770>
- Levinson, C. (2018). Using the theory of intermediation to explain the role of financial intermediaries. *The Review of Economic Studies*, 71(2), 353-360. <https://doi.org/10.1062/tres.2018.19155>
- Lore, M. O. (2019). *Factors affecting the growth of mobile phone loan uptake among small and medium traders in Nairobi Central Business District* [Doctoral dissertation, United States International University-Africa]. Kenya. <http://erepo.usiu.ac.ke/11732/5006>
- Moreno, C., & Estrada, D. (2019). Bank credit utilization and their determinants in Colombia. *Temas*, 3(7), 11-19. <https://doi.org/10.3110/temas.v18-8421-03>
- Moussa, M., & Chedia, H. (2016). Determinants of bank lending: Case of Tunisia. *International Journal of Finance and Accounting*, 5(1), 27-36. <https://doi.org/10.5923/j.ijfa.20160501.04>
- Njoroge, K. K. (2017). Effect of supply-side characteristics on uptake of loans on commercial banks in Kenya: Case study of listed banks in Kenya. *Journal of Business Management*, 5(1), 49-56. <http://41.89.49.13:8080/xmlui/handle/123456789/1423>
- Ndagijimana, A. N. (2017). *Effect of mobile lending on the financial performance of commercial banks in Kenya* [Masters' Thesis, University of Nairobi]. Kenya. <http://hdl.handle.net/11295/102241>
- Pyle, D. H. (2011). On the theory of financial intermediation. *The Journal of Finance*, 26(3), 737-747. <https://doi.org/10.2307/2325957>
- Singh, A., & Sharma, A. K. (2018). An empirical analysis of factors affecting digital credit uptake in Indian banks. *Future Business Journal*, 5(1), 29-36. <https://doi.org/10.1071/8136607q.31.226>

- Olawale, F., & Akinwumi, O. (2018). The determinants of access to trade credit by SMEs in Nigeria. *African Journal of Business Management*, 4(1), 63-70. <https://doi.org/10.361/ajbm.6j4.04.47183>
- Rababah, M. (2015). Factors Affecting the Bank Credit: An Empirical Study on the Jordanian Commercial Banks. *International Journal of Economics and Finance*, 7(5), 166-178. <https://doi.org/10.5539/ijef.v7n5p166>
- Scholtens, B., & Van Wensveen, D. (2015). A critique on the theory of financial intermediation. *Journal of Banking & Finance*, 24(8), 1243-1251. [https://doi.org/10.1016/S0378-4266\(99\)00085-0](https://doi.org/10.1016/S0378-4266(99)00085-0)
- Yunus, N. (2019). Factors that influence the demand for credit among small-scale business operators in Accra, Ghana. *Journal of Finance and Accounting*, 8(3), 71-78. <https://doi.org/10.1027/jfa.v11.352.702.446>
- Sakuhuni, S. (2017). An analysis of factors resulting in low uptake of digital credit in Zimbabwe: A case study of CBZ Bank (2009-2014). *Journal of Monetary Economics*, 13(4), 115-122. <https://ir.uz.ac.zw/xmlui/bitstream/handle/10646/3264>
- Saunders, M., Lewis P., & Thornhill, A. (2009). *Research Methods for Business Students* (5<sup>th</sup> Ed.). Prentice Hall. <https://www.academia.edu/23374295>
- Mohamed, H. (2019). *Effect of Mobile Banking On the Financial Performance of Commercial Banks in Kenya* (Doctoral dissertation, United States International University-Africa).
- Muriithi, S. M., & Louw, L. (2017). The Kenyan banking industry: Challenges and sustainability. In *Managing knowledge and innovation for business sustainability in Africa* (pp. 197-222). Palgrave Macmillan, Cham.
- Románova, I., & Kudinska, M. (2016). Banking and Fintech: a challenge or opportunity? In *Contemporary issues in finance: Current challenges from across Europe*. Emerald Group Publishing Limited.