THE INFLUENCE OF INSTITUTIONAL CHARACTERISTICS ON THE FINANCIAL PERFORMANCE OF LICENSED MICROFINANCE INSTITUTIONS IN KENYA

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ABSTRACT

This study investigated the influence of institutional characteristics on the financial performance of licensed micro-finance institutions in Kenya which include liquidity, operational efficiency, credit management practices and the moderating variables firm size. The study drew its understanding from residual equity theory, liquidity management theory, asymmetric information theory and Capital asset pricing model (CAPM). The study embraced descriptive research design and used secondary data obtained from annual financial statements reports of the 13 licensed micro-finance institutions in Kenya. Data was analyzed using descriptive statistics and inferential statistic. Inferential statistic was used to analyze secondary data with the help of STATA. The study concluded that liquidity had a significant positive influence on the financial performance of microfinance institutions therefore a critical component affecting financial performance. Operational efficiency had a significant negative influence on the financial performance of microfinance institutions. Credit management had no significant influence on financial performance of licensed microfinance institutions in Kenya, while size of the firm had a significant moderating influence on the association between institutional characteristics and financial performance of licensed microfinance institutions in Kenya. The research study recommendation was that microfinance institutions should come up with strategies and policies to improve on their liquidity position since it leads to increased financial performance and set strict guideline to maintain their credit management practices in order to reduce credit risk. Microfinance institutions should also follow the proposed budget in order to make sure that operational expenses are minimized and operational income maximized for optimal financial performance of the organization.

Key Words: Liquidity, Operational Efficiency, Credit Management, Firm Size

INTRODUCTION

Internationally microfinance institutions have been a means which over the years have been used for poverty eradication in most developing countries where financial services are offered to the community through savings, advise on credit management practices and other financial services. Through these practices the low-income earners are able to generate wealth (Harris, 2002). Micro-finance institutions put determinations in dealing with or combating poverty by developing the institutional financial systems capacity, through cost promotion and effective ways of lending money to poor households (Morduch, 2000). The least number of loans offered, the simple operations and lack of asset-based security are the main features that differentiate between Micro-finance institutions and other formal financial products (Seyed, 2011)

Institutional characteristics refer to variables enterprise that plays an important role in the business success or failures. According to Nekhili and Gatfaoui (2013) institutional characteristics are attributes of a firm. Every business has different but specific and unique attributes. Each institutional characteristics has specific objectives that influence the success and failures associated to financial performance of any organization. Institutional characteristics in this study include Liquidity, operational efficiency, credit management practices and firm size that influence the financial performance of microfinance institutions in Kenya.

Amount of capital that is readily accessible for spending and investing is called liquidity, thus capital which is used for investment and spending is brought about by liquidity of a firm through deposits which is essentially money saved up by customers that can be recollected at any point (Dang, 2011). Liquidity is the main element of financial performance in a firm. The capability of any organization to manage its financial responsibilities as and when they arise without distracting the usual operations of the organization is determined by liquidity. In case of loss of asset in the organization, capital reserve ensures that a firm is able to absorb the loses or cover the loss while maintaining financial sustainability of the organization (Adhikary, 2014). When micro-finance is not capable to finance its cash requirements and payments in a cost-efficient manner it leads to liquidity risk (Idama *et al*. 2014).

Operation efficiency is where the microfinance institution delivers services with minimum cost (Adhikary, 2014). As the key internal factor Operational efficiency defines the financial performance of the firm. Operation efficiency takes into account the cost of input /output. In order to signal the financial performance that show how well MFIs is streamlining its operation (Ongre & Gemechu, 2013). Efficiency is explained in terms of expenses when MFIs should ensure efficiency in offering credit where losses and bad debt occurs. The most major risk factor for sustainable microfinance is inefficiency as great number of institution are far from efficiency required to cover cost, therefore operation efficiency takes into account the cost /income of any entity. In order for the management of any institutions to utilize its resources efficiently and maximize on income then process on reducing operational costs should be implemented. Operational efficiency can be measured by financial ratios. Operation efficiency is measured using cost income ratio, therefore it should ensure lower cost income ratio which indicate operating cost are lower than operating income rate rather than higher cost income ratio (Dufera, 2010). The lower ratio also indicates more profitability for microfinance institutions.

Credit Management practice are approaches used to collect and regulate credit payment from clienteles to avoid loses and ensures effective management of credit (Myers & Berkley, 2013). The most essential activities in a micro-finance which cannot be neglected is credit management practice as long as the entity is involved in credit line of business. It is a mechanism

that ensures customers would pay for the service/product offered. According to Nelson (2002) credit management is the way enables micro-finance institutions oversee its credit sales in order to create greater opportunities for making higher returns. Credit management includes credit analysis, credit assessment, credit scoring and credit reports and also it's a requirement for any industry involved in line of credit because to completely eliminate credit risk default is impossible. When it is done right and the debt collection policy are adhered such as collection enforcement, guarantor payment and continuous monitoring of loans and default the customers pays on time and bad debts reduces.

Total asset is used to measure firm size of any kind of the organization. Size of the firm also determined the kind of relationship microfinance was enjoying outside and within its operating environment and this influenced its profitability level. Smaller microfinance institutions struggle to meet their operational costs with larger microfinance providers (Muriu 2011). Woodward (2011) concluded that the bigger the size of the firm in terms of supervision and management of the group or changes of set goal and objectives attainment is high the higher the profitability. Larger microfinance has greater market power and thus better financial performance in terms of profitability.

The whole financial situation of any firm for a specified period is measured by financial performance where the result obtained can be used to compare businesses in the same industry (Angola, 2014). It is the measure of firm's achievements on the set goal, objectives, policies and operations stated in monetary terms. Under microfinance institution, financial performance enables microfinance institution to be in day-to-day operations in accordance with microfinance objectives without donor support (Thapa, 2008). According to the study financial performance of microfinance institutions will be attributed by liquidity, operational efficiency and credit

management practices and size of the firm. Microfinance institution should strive to maximize performance in different areas either economic or social (Jorgensen, 2011) because the main aim of each and every microfinance institution is to be in operation that are profitable for improvement on sustainable growth and stability (Angola, 2014). Shareholders rewards for their investment is made possible by good financial performance (Ongore & Gemechu, 2013). According to (Baraza, 2014) in the view of shareholders a financial performance of an institution is measured by how the position of shareholders is made better at the end of a period than how they were at the start by using ratio from financial statements, for example balance sheet and income statements. According to Yensew (2014) Earning per share, return on asset (ROA), return on equity (ROE) or any generally accepted market rate ratio are used to measure financial performance. Return on asset (ROA) measures the efficiency with which entities manages its asset in order to generate profit hence very important financial performance ratio (Jorgensen ,2011).

Microfinance bank/institutions are defined as the deposits taking institution according to (Microfinance Act, 2006) registered under microfinance Act (2006) though they aren't fully registered banks but regulated by the central bank of Kenya, and they depend on accumulated deposits from customers to raise funds for their independent loans (Alastair, 2015) and providing credit to customers. Therefore, to meet financial services of the unsatisfied needs of clients a variety of microfinance institutions have been introduced in the market in where some concentrate only on providing credit, others on deposit and credit facilities and others concentrate on deposit collection only (GOK, 2006). Through offering loan and technical assistance in businesses to the low-income community, Microfinance plays an important role in the economic growth of not only Kenya but many developing countries (Hartungi, 2007).

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Statement of the problem

Microfinance institutions play a very important part in the Kenyan economy that is eradication of poverty through improved and easy access to financial services. Therefore, the welfare of the low-income earners can only be sustained through accomplishing good financial performance in the micro-finance institutions. However, micro-finance institutions face great challenge which have defenseless affected their continued existence and financial performance despite their great support to the country economy, such threat includes competition from commercial banks (Addisalem, 2015). Therefore, financial performance of microfinance institutions has been the attention of researchers in the recent days. The experienced competition among commercial banks and telecommunication money transfer platform has led to micro-finance institutions change in market share and profitability such as MPESA (Okombo, 2015), therefore these bring innovation and the gap which can be closed by increase in liquidity which can be used to fund and facilitate the process according to the size of the micro-finance institutions. Most of the previous studies under this research addressed the characteristics that had an influence on the financial performance of microfinance institutions but did not indicate the moderating variable to bring out the relationship between the independent variable and dependent. Therefore, the study seeks to close the gap by introducing the moderating variable, which researchers has not expounded on it.

Numerous scholars have studied on the influence of characteristic that affect the micro-finance institutions financial performance in Kenya. Biwott and Muturi (2014) studied on the determining factors of microfinance institutions financial performance in Kenya where they dedicated their attention on micro-finance institutions in Nakuru Town and established that capital adequacy, number of borrowers and operations efficiency had the ultimate effect on the performance of microfinance institution. According to Kihoro, Kimando and Njogu (2012) on their study

that focused on influencing factors on financial sustainability of the microfinance institutions in Murang'a Municipality proved, clients attended, financial Regulations and coverage and credit given out extremely affected the financial sustainability of microfinance institutions.

There are various number of characteristics that had an impact microfinance institutions financial performance, some were substantial in one economy or applicable to the micro-finance institutions and others were not, Cull et al (2007). Most of the studies highlighted however studied on specific geographical areas in Kenya, thus bringing the concept of studying the influence of institutional characteristics to licensed microfinance institutions financial performance in Kenya. Numeral studies reviewed used descriptive and multiple regression analysis which the researcher used, however the researcher would integrate a moderating variable as the fourth variables in the multiple regression analysis which previous researchers did not address in their studies. Therefore, the study would enable the researchers to get a perfect picture on the moderating effect between the independent and dependent variable.

Objectives of the Study

The general objective of the study was to examine the influence of institutional characteristics on the Financial Performance of licensed microfinance institutions in Kenya. The specific objectives were;

- To investigate the influence of liquidity to Financial Performance of licensed micro-finance institutions in Kenya.
- To examine the influence of operational efficiency to Financial Performance of licensed microfinance institutions in Kenya.
- To analyze the influence of credit management practices to Financial Performance of licensed microfinance institutions in Kenya.
- To examine the moderating influence of firm size on the relationship between licensed microfinance institutions characteristics to Financial Performance in Kenya.

The research was guided by the following hypotheses;

- H_{01}: Liquidity has no significant influence on the financial performance of licensed microfinance institutions in Kenya.

- H_{02}: Operational efficiency has no significant influence on the financial performance of licensed microfinance institutions in Kenya.

- H_{03}: A Credit management practice has no significant influence on the financial performance of licensed microfinance Institutions in Kenya.

- H_{04}: Firm size has no significant influence on the relationship between institutional characteristics and financial performance of licensed microfinance institutions in Kenya.

LITERATURE REVIEW

Residual Equity theory

Hendricken (1982) developed residual equity theory and it analyzes the change in asset valuation, Retained earnings, income and interest of other equity holders. It states that a change in the value of asset, change in reserve, change in profits and stakeholder's interests are indicated in the lasting equity of common stakeholders. Precise or specific equity includes creditors entitlements and the equities of preferred shareholders. The statement of financial position equation is Asset minus specific equities equal Residual equity. Residual equity approach main objective is to offer trusted financial reporting as a good financial management practices. But in a going concern situation, the current value of common stocks is primarily dependent upon the anticipation of future dividends. The financial situation depends on the expected income less the expenses or any obligations in terms of payments and any return from investment.

Asymmetric Information Theory

In the 1970s, Akerlof was the first to explain this theory. According to (Robinson, 2001), this theory states that's banks cannot be able differentiate between applicants who have low risk and high risk when giving out credit. It is thought that informal lenders can be able to access more useful information about applicants who are applying for credits than formal sector thus unable to compete successfully. This theory also put into consideration that it was not easy for banks to operate in profitability in developing countries and at the same time to attain widespread outreach. Economists, bankers, financial analysts, donors and government decision makers would find it difficult to promote commercial banks into micro credit markets on the basis of this theory. Therefore, it very critical for credit adequacy of financial institution to be established, and to follow the loan process which include the following five steps Pre-Loan Application interview, loan application, loan appraisal, loan approval, loan disbursal and post disbursement management when giving out credits to customers in order to avoid a lot of customers defaulting and as it known the main source of profit in MFI is loan book. Therefore, enough information on customers who are applying for Credits should be presented in order to avoid loss of income and to bring about growth in micro-finance institutions financial performance in Kenya.

Liability Management Theory

Diamond and Rajan (2001) noted that liability management theory concentration is on banks giving out liabilities in order to fulfill its liquidity wants where liquidity is closely connected with liabilities and in this study its linked with liquidity variable. Liquidity risk control aspect increases of the level of liquid asset and the management of deposit taking institutions such as microfinance institutions. Liquid asset and liability management are the most significant risk management measures in microfinance institutions and banks where it is the most essential tool for decision making process that maximizes stakeholders value. In order to prepare for negative effect and to remain in the business for long it is very important to follow up on external factors of asset and liability management in the market.

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Capital Asset Pricing Model

This theory was created by Treynor, J. (1962), Sharpe, W. F. (1964), Lintner, J. (1965) and Massion, J. (1966) independently. The capital asset pricing model describes connection between systematic risk and expected return of the asset particular the market risk premium is known. Purchasing a common stock and holding it for an agreed specified period earns the investor a return which is equivalent to the cash dividends received plus the gain or minus loss of capital during the holding period of dividend by the acquisition price of the stock (Wu, 2006).

Empirical review

Ngumo *et al*. (2020) studied on the determinants of financial performance of microfinance institutions in Kenya. Descriptive research design was implemented and secondary information was attained from 7 micro-finance institutions from 2011-2015. Correlation and regression analysis analyzed the collected data. Finding of the study stated that capital adequacy, firm size and operational efficiency showed a positive relationship with micro-finance institutions financial performance in Kenya. Liquidity risk, credit risk showed a negative connection with financial performance of micro-finance bank in Kenya. Therefore, this concluded that there was no effect of liquidity risk and on the financial performance of microfinance institutions bank. The set central bank of Kenya lowest liquidity ratio requirement enables microfinance institutions to ensure low credit risk levels. Conclusion of the study indicated existent of a direct association with operation efficiency, firm size, capital adequacy and financial performance of microfinance bank in Kenya.

Capital adequacy had a significant positive effect with performance of microfinance institutions. The study also substantiated asset quality had a significant negative effect with financial performance of microfinance institutions. It was proven that liquidity had a significant positive association with performance of the microfinance institutions. Loan delinquency which was used as a measure to financial Sustainability cover had a significant negative connection with the performance of microfinance institutions, while investment growth had a significant positive association with financial performance of microfinance institutions. Conclusion of the research established that asset quality, capital adequacy, financial sustainability, investment growth and liquidity, impacts financial performance of the licensed microfinance institutions in Kenya. Diversification of investment was highly recommended because it allows the microfinance institutions or banks to develop their commercial business while increasing asset worth of the organization.

Naz *et al.* (2019) studied on the determinants of sustainability of microfinance institutions in Pakistan. The study aimed to examine the determinants affecting the financial performance of the microfinance institutions such as profitability and sustainability in Pakistan and also to investigate if attaining profitability and sustainability is a contradictory goal in serving the poorer sections. 29 microfinance institutions from the period 2008-2014 was used as target population under observation. The paper utilized unbalanced panel data of the 29 microfinance institutions which was obtained from the market mix. The study decided that size of the firm, cost efficiency, portfolio at risk, average loan size and income on loan portfolio are the leading factors influencing Pakistan microfinance institutions financial performance. The study also resolved that size of the firm increased financial sustainability and profitability of microfinance institutions in Pakistan. The study established that return on asset (ROA) had a positive and significant relationship of (0.006) with average loan size. These results showed that Pakistan microfinance institutions are very eager to attain profitability thus increasing the loan size.

Therefore, the study concluded that Pakistan should focus and offer their services to the poor borrowers because it gains lower cost and aids Pakistan microfinance institutions to fulfill their

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primary object of eradication of poverty to the poor households. According to the study, Pakistan microfinance institutions are not actually cost-efficient which in turn affect their financial sustainability and profitability. Therefore, Pakistan microfinance institutions should come up with cost reduction strategies in order to increase profitability. The study also concluded that efficient loan portfolio control and management was needed therefore loans should be offered after a thorough scrutiny and examination of the clients to ensure loan repayment security and also to ensure that standardized loan policies are strictly adhered to. The policies should not be relaxed for any borrower to guarantee and increase financial sustainability of Pakistan microfinance institutions. Cost per borrower and operating expenses /loan portfolio was found to have an advance effect on the sustainability of Pakistans' Microfinance institutions

Wafula (2016) studied on the determinants of microfinance institutions financial sustainability in Kenya where the study established that liquidity, operational expenses level, profitability and leverage influences financial sustainability of microfinance institutions. Descriptive survey research was conducted throughout the study. The target population was of all the 44 microfinance institutions obtained from the association of microfinance institution of Kenya where a census technique was used due to the small number of the population. To establish the relationship between determinants of financial stability of microfinance in Kenya linear regression was adopted in the study. Data analysis was conducted with the help of Statistical package for social sciences(SPSS). Finding of the study were that liquidity, capital adequacy and leverage are associated significantly with financial sustainability while financial performance is not. According to the study it was decided that liquidity was significantly and positively associated with financial sustainability thus it means that financial sustainability of microfinance institutions is totally depend on the level of institutions liquidity. The higher the capital amount that is

available for investment and spending the more the microfinance institutions becomes stable financially and hence increase in efficiency of operations.

Another conclusion of the study was that financial performance was positively but insignificantly associated with financial sustainability which concluded of the existed a positive relationship between financial performance and financial sustainability. According to the study, improved microfinance institutions' financial performance lead to improved financial sustainability hence growth in assets and also increased in profits would lead to increased concentration which in turn lead to financial sustainability. The discovery of the study also concluded of existence of a negative association between capital adequacy with financial sustainability which simply concludes that higher debt leads higher debt to equity ratio which affect the amount of available equity for investment purposes. The study also concluded that leverage had negative relationship with financial sustainability which means that poor management of debts funds would relay affect the sustainability on the microfinance institutions.

Baraza (2014) investigated whether the funding structure has an effect of financial performance to micro-finance institutions in Kenya. Study Purpose was to determine the association between funding structure and financial performance of microfinance institutions in Kenya. Researcher embraced descriptive research design to carry out the research and used secondary data in the research study was obtained from the market mix and annual reports of the sampled micro-finance institutions used where the study was done over a period of 5years (2009-2013). The conclusion of the research study was that a negative correlation between debt to equity ratio and financial performance, thus a firm that employ more debt in financing its operations register poor financial performance. The target population was 56 microfinance institutions registered and that are operating in Kenya. From the 56 registered

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microfinance institutions a sample of 25 was obtained from this population as representative of the whole population. Statistical package for social sciences (SPSS) was used to analyze data and the findings presented using figures and tables.

Multiple correlation analysis was used to determine the connection between variables under study. According to the study funding structure implemented by microfinance institutions affected financial performance of the organization. The finding of the study showed that the return on asset for the 25 sampled microfinance institutions had a mean average of 28.51% during the period under study. This study also indicated that a microfinance institution that receives more deposits, the higher the financial performance hence a positive correlation between deposits to asset ratio and financial performance, therefore microfinance that accept deposits would perform financially better than those microfinances that do not accept. The study also concluded that microfinance with high deposit to equity ratio perform better than those with low deposit to equity ratio. According to the finding of the study loan portfolio had a very strong positive correlation with financial performance where loan portfolio small increase causes an increase to the financial performance because according to the study microfinance institutions with high loan portfolio were found to perform better.
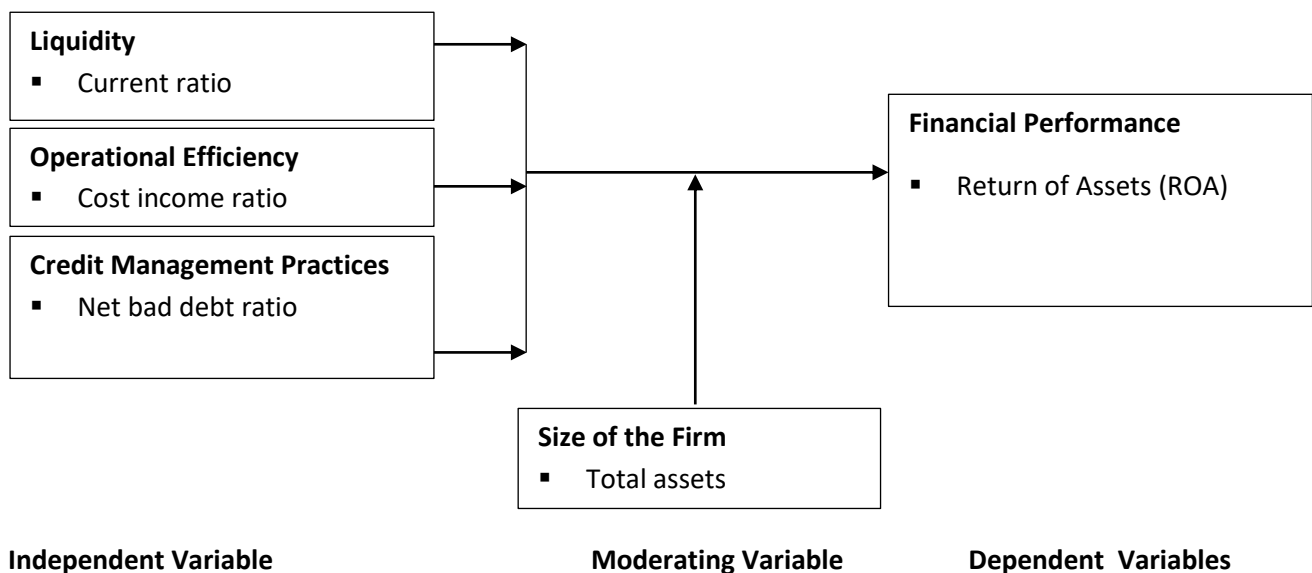
Liquidity
- Current ratio

Operational Efficiency
- Cost income ratio

Credit Management Practices
- Net bad debt ratio

Financial Performance
- Return of Assets (ROA)

Size of the Firm
- Total assets

Independent Variable   Moderating Variable   Dependent Variables

Figure 1: Conceptual Model

METHODOLOGY

The researcher also used descriptive research design to show influence between microfinance institutions features and performance. The researcher focused on 13 licensed micro-finance institutions as at 31st December 2020 as per the Central bank of Kenya (CBK). Collection of data was achieved by concentrating on secondary data only. Secondary data was obtained from financial statements reports of the micro-finance institutions which was derived from CBK's website under bank supervision audited reports.

Analysis of information collected was done using descriptive statistic which involved using graphs and description and tabulation of information collected from the sample of a given research (Sekaran & Bougie, 2011). This study used multiple regression because is a method of data analysis which is flexible when predicting quantitative variables which are the independent and dependent variables.

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FINDINGS AND DISCUSSIONS

Descriptive Statistical Analysis

Descriptive statistical analysis presents the descriptive statistics for the study variables, return on assets, liquidity, operational efficiency, credit management and firm size. Descriptive statistics present the summaries and discussions of the main characteristics of the study variables. The following Table 1 showed descriptive statistics for the data used in the analysis.

Table 1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Return on Assets	65	-.0747138	.1327316	-4	.09
Liquidity	65	1.623385	1.839543	.1	12.1
Operational Efficiency	65	1.772	1.353229	.6	7.3
Credit Management	65	.1623692	.5011699	-1.3	3.2
Firm Size	65	5567.298	10162.1	54	32153

Source: Study data (2021)

Results in Table 1 showed the summary of the descriptive statistics of Financial Performance, Liquidity, Operational efficiency, Credit management and size of the firm which is the moderating variable. The total mean of Financial Performance for the period 2016 to 2020 was -0.7471 with a standard deviation of 0.1327 indicating a small variability in financial performance over time. The minimum and maximum values of ROA over the same period of time were -4 and 0.09 respectively. The negative ROA means that the microfinance institutions were on average decreasing their levels of financial performance although some companies were vesting as reflected by positive maximum observed value of ROA.

From the results displayed by Table 1, the total mean of Liquidity for the period 2016 to 2020 was 1.623 with a standard deviation of 1.8395 indicating small variability over time. The minimum and maximum values of Liquidity over the same period of time were 0.1 to 12.1 respectively. This indicates the Inflation Risk over the five years grew at a minimal rate. The total mean of Credit management for the period 2016 to 2020 was 0.1624. The variation was relatively low as evidenced by a standard deviation of 0.5012. The minimum and maximum values of Credit management over the same period of time were -1.3 and 3.2 respectively. This implies that some institutions were able to increase their access to credit facilities over the period.

Further, the results displayed by Table 1, the total mean of Operational efficiency for the period 2016 to 2020 was 1.772 with a standard deviation of 1.3532. Also noted is that the minimum and maximum values of Operational efficiency over the same period of time were 0.6 to 7.3 respectively which show there was a significant improvement in the last five years. Finally, the results show that the mean of Firm Size for the period 2016 to 2020 was 5567.29 with a standard deviation of 10162.1 indicating a large variability over time. The minimum and maximum values of Firm Size over the same period of time were 54 to 32153 respectively. This indicates the Firm Size over the five years grew at a rapid rate.

Trend analysis

Trends on analysis for the variable's liquidity, operational efficiency, credit management and firm size of licensed microfinance institutions in Kenya were presented. The variation of the research variables was done overtime to determine the time influence of the study variables and whether their data was still over time or not.

Trend in Financial Performance: The returns on assets were used to measure financial performance in this study. Return on assets was used as a measure of financial performance of the

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microfinance institutions. The minimum ROA (return on assets) was negative 1.181 which was attained in 2016 and the maximum ROA was negative 0.6720 attained in 2019. From the results, the mean value of Return on Assets showed a negative 0.0747 for 65 observations with standard deviation of 0.1327316 which indicated the thirteen licensed microfinance institutions did not generate profits in the given study period of five years, 2016 to 2020. However, there was a significant improvement in the last two years.

Trend in Liquidity: The current ratio was used to measure liquidity in this study. The trend showed a decline in year 2017 which is followed by an increase to 26.120 in 2018 which was the maximum in the five-year period. The Central Bank of Kenya established various reform in 2018 to enhance the supervision of MFIs during the period which included among them to increase MFIs minimum core capital and the liquidity ratio (Central Bank of Kenya, 2018). However, there was a sharp decrease in the year 2019.

Trend in Operational Efficiency: The operational efficiency was measured using the cost income ratio in this study. The results showed a soft downwards trend up to the year 2019 and thereafter a steady increase in operational efficiency for the rest of the period.

Trend in Credit Management practices: The Credit management was measured using the net debt ratio in this study. The results indicated that credit management showed mixed trend within the period under study. Credit Management was measured using the net debt ratio. It's trend showed a decline between 2016 and 2017 then followed by a constant between 2017 and 2018, then a sharp upward trend in year 2019 and finally a decline in year 2020. These disparities indicated that MFIs are affected by credit management differently depending on time fluctuations within the period.

Trend in Firm Size: The firm size was measured using total asset in this study. Results indicated the trend in firm size within the period. The trend showed that MFIs indicated a steady growth on the asset base within the period. Firm size was estimated using the total assets held by the MFIs within the period under study.

Table 2: Correlation Matrix

	Return on Assets	Liquidity	Operational Efficiency	Credit Management	Firm Size
Return on Assets	1.0000				
Liquidity	0.0827	1.0000			
Operational Efficiency	-0.2973	-0.0039	1.0000		
Credit Management	0.3194	0.2756	-0.0491	1.0000	
Firm Size	0.3561	-0.1210	-0.0735	-0.0226	1.0000

As presented in table 2, Test for multicollinearity in the study was conducted using correlation matrix. Liquidity, Operational efficiency, Credit Management, and Firm Size were the explanatory variables used in this study. The outcomes showed that the correlation coefficients for all variables were less than 0.8 suggesting that the study data did not reveal severe multicollinearity as commended by (Gujarati, 2003; Cooper & Schindler, 2008).

Hypothesis Testing

The hypothesis test results were presented in this section. Null hypotheses indicated below were tested:

- H_{01}: Liquidity has no significant inluence on the financial performance of microfinance institutions in Kenya.
- H_{02}: Operational efficiency has no influence on the financial performance of microfinance institutions in Kenya.

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- H_{03}: Credit management has no significant influence on the financial performance of microfinance institutions in Kenya.

The three hypotheses were tested with respect to the financial performance of licensed microfinance institutions in Kenya. Assessment of the respective models was reported in the following table 3.

Table 3: The Influence of institutional characteristics on financial performance

ROA	Coef.	Std. Err.	T	P>$|t|$	[95% Conf. Interval]	
Liquidity	.0436444	.0157721	2.77	0.007	.0121062	.0751826
Operational Efficiency	-.1033448	.0107862	-9.58	0.000	-.1249132	-.0817765
Credit Management	-.0098675	.0219534	0.45	0.655	-.034031	.053766
_cons	-.040606	.011794	-3.44	0.001	-.6641894	-.0170225
Number of obs	=	65				
R-squared	=	0.6685				
F (3, 61)	=	41.1				
Prob > F	=	0.0000				

Source: Study data (2021)

The regression model below was formulated as follows:

$Y_{it} = \alpha + \beta_1 L_{it} + \beta_2 OP_{it} + \beta_3 CM_{it} + \varepsilon_{it}$

$Y_{it} = -0.406 + 0.044 L_{it} + -0.103 OP_{it} + -0.0099 CM_{it} + 0.0118$

Where,

Y_{it} = Financial performance

L_{it} = Liquidity

OP_{it} = Operational efficiency

CM_{it} = Credit management practices

ę = error term

The outcomes from Table 3 above indicated liquidity had a significant positive relationship (β= 0.044, p= 0.007) hence indicated, an increase in unit in liquidity lead to an slight increase in financial performance by 0.044 units, p value (0.007) is below .05 thus the alternative hypothesis was accepted and concluded that there is sufficient evidence, at 5% level of significance, that there is strong positive influence between liquidity and microfinance institutions financial performance in Kenya. Operational efficiency had a significant negative relationship of (p=0.000, β= -0.103) this was an indication that an increase in unit in operational efficiency, lead to a decrease in financial performance by 0.103 units, the p value (0.000) was below .05 alternative hypotheses was accepted and concluded that there was a sufficient evidence, at 5% level of significance. This implied

that there existed a strong positive influence between operational efficiency and microfinance institutions financial performance in Kenya. Credit management practices had an insignificant negative influence of (p=0.655, β= -0.0099) this indicated that an increase in unit in credit management practices products, lead to a decrease in financial performance by 0.0099 units, the p value which was (0.655) was above .05 thus alternative hypotheses was not rejected and concluded that there was insufficient evidence, at 5% level of significance. This indicated a moderate negative influence between credit management practices and microfinance institutions financial performance in Kenya.

Kiptala and Simuyu (2019) in their study on the influence of financial indicators on the licensed deposit taking microfinance institutions financial performance in Kenya concluded that Liquidity showed a significant negative association with financial performance of the microfinance institutions where the p- value was p=0.000 and coefficient was β=-0.091013. Ngumo *et al.* (2020) did a study on the determinants of microfinance institutions financial performance in Kenya and brought out the concept that operation efficiency had a significant positive effect of, (p=0.00, β=0.031). This was an indication that operational efficiency had a significant effect with financial

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performance. Credit management practices is practiced in order to reduce default or credit risk especially where credit approach and credit policy are strictly followed. Angola (2014) discovered a positive connection between credit risk controls, credit policy, credit appraisal and approval and post disbursement Management and financial performance contrast to this study where credit management practices indicated no significant association with the financial performance of microfinance institutions.

The results from Table 3 indicated a F value generated by the F-test, as well as the P-value. The F value in the table was 41.1 with a distribution F (3, 61). The probability of observing a value greater than or equal to 41.1 is less than 0.025 as shown by the significance value of 0.000 which is less than 0.025 testing at 5% level. The result interpretation suggested that solid evidence that the regression model advanced was significance whereby the discrepancy in the outcomes was insignificant. Therefore, it is clear from the results that the relationship between the variables is statistically significant. The relationship between the dependent and the independent variables is tested by the F- test where the level of significant is achieved. Processed data of the population had a significance level of P= 0.000. This showed that the information was perfect in concluding on the population's parameter as the p-value was less than the significance level of 0.05. The finding stated that P-value was 0.000 which was actually less than the generally used criterion of 0.05, therefore, the null hypothesis was rejected, signifying that the coefficients were not all together equal to zero.

Influence of liquidity to the financial performance of licensed Microfinance Institutions in Kenya

The Null Hypothesis indicated below ware tested:

H$_{01}$:   Liquidity has no significant influence on the financial performance of licensed microfinance institutions in Kenya

Liquidity showed β = 0.0436 as the coefficient and P- value = 0.007 < 0.05. Therefore, since the P-value < 0.05, we do reject the null hypothesis and conclude that there is sufficient evidence at 5% level of significance thus Liquidity has significant effect on the financial performance of microfinance institutions in Kenya. The coefficient of positive 4.3% indicates that Liquidity has a positive effect on the financial performance of MFIs. Therefore, Liquidity has a significant positive effect on financial performance of microfinance institutions in Kenya. Liquidity was measured using current ratio

The finding of the study consistent with (Mwangi (2014), Wafula (2016), Kiptala and Simuyu (2019) who concluded in their study liquidity indicated a significant positive influence on microfinance institutions financial performance in Kenya thus microfinance institutions were able to run its operations in an efficient manner. This is an indication that microfinance institution should increase in capital which lead to increased liquidity position of the organization.

Influence of operational efficiency of the of licensed microfinance institutions financial performance in Kenya

The following Null Hypothesis below was tested:

H$_{02}$:   Operational efficiency has no significant influence on the financial performance of licensed microfinance institutions in Kenya

Operational efficiency had β = (0.1033) as the coefficient and P- value = 0.000 < 0.05. The P-value was less than 0.05, therefore, the null hypothesis was rejected and conclude that there was a sufficient evidence at 5% level of significance. With P-0.000 operational efficiency had a significant influence on the financial performance of microfinance institutions in Kenya. A coefficient of value -0.1033 indicated that operational efficiency had a negative influence on the financial performance. Therefore, concluding that operational efficiency had a significant negative

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influence on the financial performance of microfinance institutions. Cost income ratio was used to measure operational efficiency.

The finding of this study did not agree with (Mwangi (2014) and Ngumo *et al* (2020) who concluded in their study that operational efficiency had positive relationship with the financial performance of microfinance institution in Kenya. The finding of the research study agrees with (Mwangi (2014) and Ngumo *et al* (2020) on the conclusion that operational efficiency indicated a strong significant association with financial performance of microfinance in Kenya.

Influence of credit management practices on the financial performance of licensed Microfinance Institutions in Kenya

The following Null Hypothesis was tested:

H$_{03}$: **Credit management practices has no significant influence on the financial performance of licensed Microfinance Institutions in Kenya.**

Credit management practices showed β = (0.0099) as a coefficient and P-value = 0.655 > 0.05. Since the P-value is more than 0.05, we do not reject Ho that Credit management practices had no significant influence on the financial performance of licensed microfinance institutions. The outcomes showed credit management practices had no significant influence on the financial performance of microfinance institutions in Kenya. A coefficient which is negative 0.9% indicates that credit management practices has an indirect influence on financial performance. Credit management practices was measured using the net bad debt ratio.

Credit management practices if not fully monitored may lead to credit risk. According to Angola (2014) the study concluded, credit risk showed a negative association with financial performance. The study concluded that client appraisal, collection policy and credit risk controls

all had an influence on microfinance institutions financial performance in Kenya. A unit increase on the collection policy lead to an increase in financial performance, credit risk control increase leads financial performance increase and an increase in credit appraisal lead to improvement of financial performance. This is a clear indication that the MFIs need to allocate more resources on the improvement of collection policy. Credit appraisal and credit risk controls to enable attaining of maximum financial performance. Angola (2014) found that credit policy, credit risk controls, credit appraisal and collection policy had a positive association between financial performance, contrary to the researcher study where credit management practices had no significant influence on financial performance of microfinance institutions.

Analysis of Moderating Effect of Firm Size

At 95 percent confidence level (α=0.05) multiple linear regression was conducted to determine the level of significance of the hypothesized relationships of the variables. The hypothesis intended to examine the moderating effect of the size of the firm on the influence of institutional characteristics on the financial performance of the licensed microfinance institutions in Kenya. To test this hypothesis, the MacKinnon method of measuring the moderating effect proposed by MacKinnon & Fairchild, (2008) was used.

H$_{04}$: **Size of the firm has no significant moderation effect on the institutional characteristics influence on the financial performance of licensed Microfinance Institutions in Kenya.**

Firm size as an Independent Variable

The independent variable size of the firm was analyzed in this section. Presentation of the outcomes are indicated as table 4 below

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Table 4: Size of the firm as an Independent Variable

ROA	Coef.	Std. Err.	T	P>|t|	[95% Conf. Interval]	
Liquidity	.0445407	.0133445	3.34	0.001	.0178477	.0712337
Operational Efficiency	-.077045	.0105208	-7.32	0.000	-.0980897	-.0560003
Credit Management	-.0153013	.0186042	0.82	0.414	-.0219127	.0525153
Firm Size	.0259107	.0051587	0.52	0.315	.0155917	.0362296
_cons	-.2336049	.0396996	-5.88	0.000	-.3130159	-.1541939
Number of obs = 65						
R-squared = 0.7666						
F (4, 60) = 49.28						
Prob > F = 0.0000						

Source: 2021 study data

Results in the above table 4 indicated R squared of 76.66% implying that institutional characteristics and firm size had explanatory power on the licensed microfinance institutions financial performance in Kenya. This indicated that combination of these variables can adequately explain variation in financial performances. The P-value from the findings of the study which was 0.000 that was less than 0.005 indicated the institutional characteristics and size of the firm were significant in clearing up the deviation in the financial performance of microfinance institutions.

The outcomes indicated that liquidity had a coefficient (β = 0.0445) and a P- value = (0.001 < 0.05) which showed P- value that was less than 0.05. This indicated liquidity had a significant positive influence with the financial performance (Return on Assets) of licensed microfinance institutions. The result indicated that Liquidity variable had an explanatory influence on the financial performance accounting for 4.45%.

The results indicated the coefficient of operational efficiency (β = (0.077), P- value = 0.000 < 0.05) which showed P- value that was less than 0.05. This indicated operational efficiency had a significant negative influence on the financial performance (Return on Assets) of licensed MFIs.

The result indicated that operational efficiency variable had an explanatory sway on the financial performance of microfinance institutions accounting for 7.70%.

The results indicated the coefficient of Credit management (β = (0.0153), P- value = 0.414 > 0.05) which showed P- value greater than 0.05. This conclusion indicated credit management practices had a negative influence on the financial performance (Return on Assets) of licensed microfinance institutions in Kenya. The result indicates that Credit management variable had an explanatory influence to the financial performance of licensed microfinance institutions accounting for 1.53%.

The results indicated firm size coefficient of (β = 0.0259, P-value = 0.315) that is greater than 0.05, denotes that there is no significant direct relationship between firm size and financial performance. This implies that size of the firm does not directly influence financial performance and thus it is not a predictor variable to financial performance.

Size of the firm as a Moderator Variable

Size of the firm presented as moderator variable outcomes are presented in the table 5 below.

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Table 5: Size of the firm as a Moderator Variable

ROA	Coef.	Std. Err.	T	P>|t|	[95% Conf. Interval]	
Liquidity	.1666228	.0769175	2.17	0.034	.0125982	.3206474
Operational Efficiency	-.0505652	.0760187	0.67	0.509	-.1016596	-.20279
Credit Management	-.1676599	.159024	-1.05	0.296	-.4861	.1507801
Firm Size	.0254461	.0057896	4.40	0.000	.0138526	.0370396
Liquidity * Firm Size	-.0205457	.01413241	-1.45	0.151	-.0488287	.0077372
Operational Efficiency * Firm Size	-.0245821	.0143328	-1.72	0.092	-.053283	.0041188
Credit Management * Firm Size	.0287851	.025014	1.15	0.255	-.0213046	.0788748
_cons	-.040606	.011794	-3.44	0.001	-.6641894	-.0170225

Number of obs	=	65	
R-squared	=	0.7846	
F (7, 57)	=	29.65	
Prob > F	=	0.0000	

Source: Study data (2021)

$$Y_{it} = \alpha + \beta_1 L_{it} + \beta_2 OP_{it} + \beta_3 CM_{it} + \beta_4 S_{it} + \beta_{11}(L_{it} S_t) + \beta_{22}(OP_{it} S_t) + \beta_{33}(CM_{it} S_t) + \varepsilon_{it}$$

$$Y_{it} = -0.041 + 0.167 L_{it} + -0.051 OP_{it} + -0.168 CM_{it} + 0.025 S_{it} + -0.205(L_{it} S_t) + -0.025(OP_{it} S_t) + 0.029(CM_{it} S_t) + 0.118$$

Where

Y_{it} = Financial performance

L_{it} = Liquidity

OP_{it} = Operational efficiency

CM_{it} = Credit management practices

S_{it} = Firm size

ę = error term

The interaction of Liquidity and Size of the firm to financial performance showed a negative coefficient β = -0.0205 and a p-value = 0.151 > 0.05. From the finding p-value was greater than 0.05, Therefore Liquidity * Size of the firm had no significant influence on the financial performance of licensed microfinance institutions in Kenya. Coefficient of -0.0205 obtained in this case indicates that the interaction of Liquidity and size of the firm had a negative influence on financial performance. Therefore, microfinance whether big or small should strive to boost their liquidity because from the study the liquidity of the organization is not determined the firm size therefore small and big microfinance have an opportunity to grow its liquidity in order to be able to operate smoothly and hence growth in its financial performance.

Relation of operational efficiency and size of the firm to the financial performance showed β = -0.0246 as the coefficient and p = 0.092 > 0.05. Therefore, p-value obtained is greater than 0.05 hence operational efficiency * Size of the firm had no significant influence on the financial performance (Return on Assets) of licensed microfinance institutions in Kenya. Attained coefficient of negative 2.46% indicated that the interaction of operational efficiency and firm size showed a negative influence on financial performance. Therefore, from the above assumption operation efficiency and firm size had no interaction or relation in order to perform financially better. Therefore, microfinance institutions should strive to maintain and follow the set budget in order to regulate on operational expenses and making sure to meet the target on operational income in order to increase its financial performance.

The relations of credit management practices and size of the firm to the financial performance showed a coefficient β = 0.0288 and a p-value of = 0.255 > 0.05. Therefore, p-value attained is greater than 0.05 hence credit management * size of the firm had no significant influence on the financial performance (Return on Assets) of licensed microfinance institutions. The coefficient of positive 2.88% attained indicated the interaction of credit management and size of the

firm which concluded it had a positive impact on the financial performance. From the above finding firm size contributes to the strict following of credit management practices due to increase in number of client served and huge amount of loan portfolio. Therefore, increase in unit in firm size and credit management practices lead to financial performance increase of the microfinance institutions.

The results indicated R squared of 0.7846. This indicated the introduction of the size of the firm as a moderator variable to the influence of institutional characteristics on financial performance of licensed microfinance institutions improved on the explanatory influence accounting for 78.46% of the financial performance of licensed microfinance institutions in Kenya. F-test value obtained was 29.65 that had a P - value of 0.000. From the conclusion (p=0.000) was found to be lesser than the significance level of 0.05, which

therefore indicated a significant change. this indicated that institutional characteristics and size of the firm as were mutually significant in clarifying discrepancies in financial performance. The outcomes indicating the null hypothesis of size of the firm has no significant moderating effect on the influence between institutional characteristics and financial performance of licensed Microfinance Institutions was rejected at a 5 percent significant level and established that size of the firm had a significant moderation effect on the influence between institutional characteristics and financial performance of licensed Microfinance Institutions in Kenya. The study is consistence with Kisengo and Kombo's (2014) conclusion of a positive relationship between firm characteristics and financial performance of microfinance institutions.

Summary of Tests of Hypotheses

Table 6 presented a summary of the results of tests of hypotheses as discussed above.

Table 6: Hypotheses testing summary

Hypotheses		Results	Decision	Findings
H_{01}:	Liquidity had no significant influence on the financial performance of licensed microfinance Institutions	P =0.007<0.05	Reject H_0	Liquidity had a significant positive influence on the financial performance of licensed microfinance Institutions in Kenya.
H_{02}:	Operational efficiency had no significant influence on the financial performance of licensed microfinance Institutions	P=0.000<0.05	Reject H_0	Operational efficiency had a significant negative influence on the financial performance of licensed microfinance Institutions in Kenya
H_{03}:	Credit management had no significant influence on the financial performance of licensed microfinance Institutions	P=0.655>0.05	Failed to reject H_0	Credit management had no significant influence on the financial performance of licensed microfinance Institutions in Kenya.
H_{04}:	Firm size had no significant moderation effect on the influence between institutional characteristics on the financial performance of licensed microfinance Institutions	P=0.000<0.05	Reject H_0	Firm size moderated the institutional characteristics and financial performance of licensed Microfinance Institutions in Kenya.

Source: Study Data (2021)

CONCLUSION, AND RECOMMENDATIONS

Conclusions of the study was derived from the study of the variables and their influence on

financial performance of licensed microfinance in Kenya. The study concluded that liquidity was a critical component affecting performance of the

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microfinance institutions. From the study it was concluded that liquidity had a significant positive influence on the financial sustainability thus it means that liquidity lead to increased financial performance of licensed microfinance institutions in Kenya. Microfinance institutions in Kenya is totally dependent to the level of institutions liquidity in order to function. The higher the capital amount that is available for investment and spending the more the microfinance institutions become stable financially and hence increase in efficiency of operations.

The study findings also lead to the conclusion that operational efficiency has significant negative influence on the financial performance of the microfinance institutions in Kenya. Therefore, microfinance main focus should be on their operational expenses in order not to surpass their operational income for better financial performance. Credit management practices was concluded not to have any influence on the financial performance of microfinance institution. Concludes the study was that microfinance institutions are involved in decision making and management of credit policy by coming up with credit risk decisions through a standardized procedural process, documentation, observation of credit rating and terms and making a follow up on loan portfolio. The study brought out the aspect that financial performance is related to customer retention and improved collection policy. Firm size was concluded to have a significant positive influence moderating between microfinance institutional characteristics and financial performance of the microfinance institutional. This simply explain that large microfinance performs better than small microfinance institutions in Kenya.

Based on the findings of the study the researcher recommendation to the microfinance institutions is to identify ways and strategies on how to improve their liquidity position since it had a significant and positive influence to financial performance. Strategies that should be put on

priority is to increase on the cash flows that would be used for investment and other spending which would finally lead to increased financial performance. Operational efficiency generally leads to increase in financial performance of the microfinance institutions in Kenya. Due to microfinance competition on achieving better financial performance, microfinance institutions should strive to reduce their operational expenses especially those exaggerated director's allowances and remuneration and training expenses, procurement of unnecessary equipment's in the organization and payment of own delayed overtime allowances, among others. When budget is fully and strictly followed the organization and expenses fully monitored the microfinance would really improve on their financial performance due to increased operation income hence growth of the microfinance institution.

From the conclusion that credit management practice had no significant influence on financial performance, therefore microfinance should set strict credit policy to avoid credit risk. Microfinance should strive to increase their asset which was in turn lead to increase in their firm size. As the finding state that firm size had a significant and positive influence on financial performance of licensed microfinance in Kenya. Therefore, the study indicate that large microfinance performs better than small microfinance in Kenya. Lastly the study further recommends that microfinance institutions should implement financial management practices to promote profitability and create wealth to the shareholders. The culture of any organization also key aim is to ensure success as when the norms and values are developed and well taken in the organization then employees feel the need to follow the routines, norms and values entrenched. The study concludes that training of both new employees and continuing employees enhances efficient through sharpening of skills and also new knowledge to cope with new challenges that face the industry thus promotes better financial performance.

Suggestion of further studies

The study done encountered various limitations that really need other researchers to expound their research in microfinance institutions to increase the target population number so that to comprehend the financial performance of microfinance institutions and sectors in Kenya. The researcher should also take into considerations other institutional characteristics that influenced financial performance of microfinance in Kenya by doing a more detailed study considering that each factor was differently influence another factor. Comparison from different studies done from various sector would really help in construction of recommendation to be considered by numerous appropriate authorities to certify effectiveness to financial performance in Kenya, therefore researchers are encouraged to undertake studies on various sectors.

The above study focused on secondary data therefore further studies should consider applying primary data for data collection. This would lead to comprehensive information gathered from original sources which actually would portray accurate and dependable results that explains the content of the study. Microfinance institutions banks need to utilize their resources in an optimum manner including asset in order to increase their profitability margin and for carrying out its daily operations. The study used data that was within the last 5 years (2016-2020), therefore further studies could purpose to use a longer time period for a similar research, for more detailed and informed results.

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