



EFFECTS OF COST OF BANKING SERVICES AS A DETERMINANT OF FINANCIAL PERFORMANCE OF DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN KENYA

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KeyWords

Transaction costs, Operating costs, Financial performance, Deposit Taking Microfinance Institutions (DTMIs), Banking services.

ABSTRACT

The goal of every Microfinance Institution is to operate profitably so as to maintain its stability, outreach and sustainability. However, several factors among them, costs, have had a negative effect on the microfinance industry. The main costs that greatly contribute to the performance of the DTMFIs are; transactional costs and operating costs. This paper evaluates cost of banking services as a determinant of financial performance of Deposit-Taking Microfinance Institutions (DTMFI) in Kenya. The study made use of theoretical underpinnings (capital structure, portfolio theory and the economic theories) to evaluate if cost of banking determined the financial performance of DTMIs. The study used both qualitative and quantitative research design. A random sample of 51 out of the 138 DTMFIs in Kenya was taken. Questionnaires were used to collect data from purposively randomly sampled participants and additional data was sourced from published reports. Data analysis and interpretation was done using descriptive statistics and measures of dispersion as well as inferential statistics which included, regression analysis, Pearson correlation, factor analysis, ANOVA and Chi square. The study established a positive statistically significant relationship between cost of banking service and financial performance of DTMFIs as indicated by the correlation coefficient of 0.393 and a p-value (0.000) < 0.05. The study recommends that DTMFIs regulator to enhance internal audit in all their departments to unearth other components of cost, managers to structure the organizations in such a way as to avoid duplication of tasks and engage experts in all areas for efficiency and high productivity of the staff. The study opens up the difficulties of operating as DTMFI to the management and regulator.

Introduction

Microfinance has been widely accepted as a one of the developmental tool and greatly adopted by most developing economists (Augsburg, 2009; Ibtissem & Bouri, 2013). On 2nd May 2008, a Microfinance Act was established that allowed existing microfinance institutions to apply for licenses that would enable them to take deposit from members and the public, hence Deposit taking Microfinance Institutions (DTMFI) were born. Through their innovative products such as group lending, regular repayment plans, collateral substitutes and progressive lending, DTMFIs are a promising tool for developing global financial systems whose aim is to reduce poverty by meeting the financial needs of the poor. Deposit taking for the microfinance institutions is one of the easier way of mobilizing funds, extending their outreach and delivering services more efficiently. However, several challenges still exist that impact on profitability of the DTMFIs. The financial performance of these institutions emanate from its financial position, structure and function (Rahaman, 2010). Deposit taking microfinance institutions performance greatly lies on their operations and the style of management Laffont & Guessan, 2000). Poor financial performance weakens the ability of most DTMFIs to bare negative shocks such as credit risk, operation costs, interest risk and liquidity risk (Ayuma, Namusonge & Iravo, 2015). Of greater impact on the financial performance of any DTMFI is cost of offering these banking services. Cost has become a significant factor in the performance of the Micro Finance Institutions (MFI) sector and has considerable effects which need not be ignored (Waterfield, 2011).

The key costs that greatly contribute to the performance of the DTMFIs are transactional costs and operating costs. Cost of operations which is the economic importance of transaction costs is widely recognized. On the other hand, transaction costs reflect the economic costs that organizations incur both outside the firm and inside the firm and are one means by which the efficiency of different institutions can be measured in particular environments (Roodman, 2011). The existence of transaction costs in loan market implies that financial institutions must become more actively involved in monitoring activities and strategic behavior of firms because financial institutions invest substantial amounts of funds in business firms. This has raised the need to evaluate the effects of cost of banking services as a determinant of financial performance of DTMFIs.

Statement of the Problem

Since 2009, several Microfinance Institutions (MFI) in Kenya have been undergoing reform to enable them become deposit – taking financial institutions (FSD Kenya, 2014). The reforms have come by way of regulations referred to as prudential regulations of MFIs (CBK, 2013). The regulating authority has developed a number of guidelines as the frame work to determine the performance of the MFIs. Some of the guidelines are managerial in nature while others are financial. Cost of banking services is one among the many determinants that are thought to affect the financial performance of DTMFIs (Branker, Shackles & Pearce, 2011). Several studies in the world show that MFIs have experienced problems as they transform into deposit – taking microfinance institutions (DTMFI) such as experienced in Uganda (Sridhar, 2015) and India (Bhandari, Amit & Kundu, 2014). The studies done show that transformation of MFIs had hardships which were financial, legal and managerial in nature (Hishigsuren, 2006). From reviewed literature cost has been identified as a determinant which has considerable contribution to MFIs performance from a developing country context like Kenya. According to Tehulu, (2013) for MFIs to reach full potential they must become financially sustainable. Financial soundness also known as financial self-sustenance (FSS) and operational self-sustenance (OSS) which is measured as the ability of MFIs to continue operations indefinitely using own resources without dependence on other sources or subsidized loans from outside individuals, NGOs, or governments have to be attained. This study was therefore set out to establish the degree to which the cost of banking services as a determinant affects the financial performance of the DTMFI in Kenya.

Capital Structure Theory

This study was guided by capital structure theory. In reference to capital structure theory, the term capital structure is used to refer to the percentage of capital or money at work in the MFIs. There are two forms of capital namely; equity capital and debt capital. Due to the fact that each has its own benefits and drawbacks, a substantial part of wise corporate stewardship and management is trying to find the best and perfect capital structure in terms of risk or reward payoff for shareholders ((yuma, Namusonge & Iravo, 2015; Berger & Bouwman, 2013). Equity Capital refers to money put up and owned by the shareholders who are the owners of the organization. It comprises of two types; contributed capital and retained earnings. Contributed capital is the money originally invested in the business in exchange for shares of stock or ownership. Retained earnings represents profits from past years that have been kept by the company and used to strengthen their financial position as shown in the entity's balance sheet or fund growth, acquisitions, or expansion. Equity capital is

considered to be the most expensive type of capital a firm may utilize since its cost is the return the firm earns to attract investment. There are actually other forms of capital, like vendor financing where a business can sell goods before they have to pay the bill to the vendor, which drastically increases return on equity and is devoid of costs on the side of the entity (Akhigbe, Madura & Marciniak, 2012). Therefore, as evidence from reviewed literature depicts, capital structure is an important component of financial performance.

Sushanta (2011) explains that capital structure is the mix of the long-term sources of funds used by the firm. He further explains that, the capital structure decisions aim at maximizing the market value of the firm through employment of the optimal capital structure which maximizes the firm's overall cost of capital. On the other hand, Danielson and Scott (2006) provides the net income approach of capital structure. This approach states that a DTMI can increase its value by using the debt capital. The intermediate approach to the capital structure focuses on a rather traditional theory of capital structure which expounds that the value of the firm goes on increasing to a certain level of debt capital and finally the value of the firm decreases (Goldstein et al., 2001). This theory holds the concept of optimal capital structure. These findings form a strong foundation to support the use of capital structure theory. Bauer et al. (2008) developed the capital structure theory based on the agency costs. They postulate that DTMI's incur two types of agency costs; costs associated with the outside equity holders and the costs associated with the presence of debt in capital structure.

Makau (2006) carried out a study on the effect of capital structure on firm value: evidence from Nairobi stock exchange. The researcher concluded that there existed a regression equation that was relating the firms leverage to its own growth, profitability, liquidity, size and non-debt ratio tax shields. Ayuma, Namusonge and Iravo (2015), cited access to capital structure, prudential supervision, and cost of capital as determinants of financial risk of listed companies in the Nairobi Securities Exchange. This finding forms a strong foundation to support the use of capital structure theory.

Cost of Banking Services Offered by Microfinance Institutions

Cost is defined by Drury (2004) as the measure of the economic sacrifice made to achieve organizations' goals. Microfinance Institutions (MFI) incur costs not only in sourcing funds and disbursement of these funds to microfinance clients but also in promotion and monitoring of microfinance client groups and development of processes for improving efficiencies of service delivery. Generally, the costs experienced by the MFIs differ widely depending upon the loan products offered, total number of clients, loan size, cost of borrowing, nature of the organization, geographical location for the branch office, size of staff complement at each branch, periodicity of collection, mode of collection for instance at doorstep or common place, individual or group and method of transaction (Branker, Shackles & Pearce, 2011). Studies done by Armendariz et al., (2010) show great economic importance on transaction costs as a financial determinant of the MFIs performance. Transaction costs refer to the cost of carrying out a transaction by means of an exchange on the open markets which are associated to the division of work as stated. Transaction costs indicate the financial and economic costs incurred by organizations both at macro and micro level of the organization. In spite of many governments and international financial institutions trying to address recurring problems of high transaction costs found in current empirical studies, transaction costs cannot be directly measured, but rather proxies such as opportunism, uncertainty, asset specificity, transaction frequency, and so on are used instead (Aemiro & Mekonnen 2012).

Transaction costs as understood in credit markets are indirect financial costs generated by series of processes, like the cost of searching and collecting relevant information. Lei, Adrian & Zhuayunson, (2012) stated that indirect costs are incurred through frictions in the flow of credit funds, safeguarding credit markets from reaching efficient market equilibrium. Therefore, transaction costs of lending consist of the costs like administering credit, coordination costs and the costs of the risk related to default. Despite some literature emphasizes that there exists some association between financial intermediation and loan costs, there is no enough empirical research investigating the actual effect of transaction costs on lending interest rates in microfinance institutions and according to Akhigbe, Madura & Marciniak (2012). Administrative costs are described as those which are directly attributed to the processing, delivering and administering of loans facilitation. On the other hand, coordination costs are those resources a MFI dedicates to ensuring that clients follow the terms described in the loan contracts. Microfinance Institutions create a loan loss reserve to which becomes a loan loss provision cost. The loan loss reserve is the amount set aside to cover future losses on the loan portfolio and usually shows up as a negative asset or as a liability on the Balance Sheet of the MFI. A Loan loss provision is a direct expense that reduces the profit of a branch and a micro-finance organization as whole (Aemiro & Mekonnen, 2012).

Financial activities related to banking have two types of transaction costs. The first type of transaction costs is interest expense which reflects the costs of funds for banking activities. The second type is the non-interest expense that reflects the costs of information and co-ordination. Transaction costs are broken into direct and

indirect where direct transaction costs comprises of; training costs, cost of direct administrative activities in addition to cost of monitoring. Indirect transaction costs consists of; allocated fixed costs of the branch office, regional office head office, taxation costs and depreciation. Sain, Rahman & Khanam, (2013) show that such costs significantly influence MFI's decisions concerning planning activities to be performed. The main cost drivers that are reported in the financial statements of most organizations are based on personnel costs which are basically focused on the employees' salaries, administrative costs derived from all establishment expenses like provident fund for employees, insurance, and depreciation. Group development costs is the next cost driver which comprises the costs which the MFI incurs when undertaking events involving groups or during training in their goals to carry capacity building activities. Financial costs or bank charges which are made up of interest costs, loan loss provisioning expenses and processing fees is also a key driver. Besides the above travel costs are incurred in terms of fuel costs, motor vehicle maintenance.

The reviewed literature indicates some significant positive relationship between costs of DTMFIs and their core activities. Deposit taking Microfinance Institutions incur high transaction costs as they deliver services to their customers, which in essence affects the DTMFIs' capabilities to serve the target clients. However, literature review on costs have little that has been researched on to show the effects of costs as an expense undertaken by DTMFIs in Kenya on their actual performance especially at the time of changing into the new dispensation of DTMFIs. The migration to operate as DTM poses a wide gap of knowledge on how the costs incurred in the augmented service restructuring are likely to slow or increase the level of performance of the MFIs. Therefore, the researcher in this study found out that there was some gap in the literature reviewed to explain the effects caused by transactions costs incurred by the DTMFIs in their operations and by what magnitudes, so it was prudent to evaluate the effects of cost of banking services as a determinant of financial performance of DTMFIs.

Research Methodology

Research Design

The study adopted both qualitative and quantitative research techniques. Qualitative research design is often held as the precursor to quantitative research. It is used to generate possible leads and ideas which are used to formulate realistic and testable hypothesis which can comprehensively be tested and mathematically analyzed with standard quantitative research methods. On the other hand, quantitative research design is useful for testing the results gained from qualitative research leading to a final answer and narrowing down to possible directions for follow up research to take (Patten, 2004). This approach therefore helped in describing the status of financial performance and Capital structures of DTMIs in Kenya.

Target Population

A population is defined as a group of individuals, objects or items from which samples are taken for measurement in a study (Kombo & Tromp 2006). The target population of this study was 138 which comprised branch managers and finance officers working in MFIs that have transformed into DTMFIs in Kenya for the period between 2009 and 2013.

Sampling Frame and Sample Size

The study involved a 37% sample size from a population 138, (37% of 138) is 51. According to Bornmann, (2011) any sample size greater than 30 is adequate. The sample size for this study were 102 respondents who were selected by simple random method from the study population.

Data Collection Method

Data collection involved both secondary and primary data. Primary data was collected using open-ended administered to categories of participants; 51 questionnaires to the branch managers and other 51 questionnaires to the key informants in finance department of each DTMFI branch. Secondary data was collected from the Bank supervision Annual reports for the years under review, Annual report on microfinance sector in Kenya, journals and other publications.

Pilot Test

A pilot test of the research instrument was done on a sample of 14 DTMFI respondents, which was a 10% representation of the targeted population. The piloting led to the data being collected in the research to be reliable for errors were detected in the piloting stage. The Cronbach alpha was used to measure the internal consistency of the questionnaire. Internal consistency was determined before the questionnaire was employed for the research to ensure both validity and reliability of the questionnaire.

Data Analysis

Data analysis was done with the aid of Scientific Package for Social Sciences (SPSS). Analysis of the data was done using a combination of designs including descriptive statistics which included means, standard deviations, frequencies and percentages and inferential analysis in the form of t- test. Quantitative data was analyzed to yield descriptive and inferential statistics.

Results

The response rate from the primary data was 80.4% from the respondents who comprised of branch managers and finance officers working in DTMFIs. This was regarded as good and adequate for further analysis since according to (Mugenda, 2003) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and above is excellent.

In order to Evaluate the effects of cost of banking services as a determinant of financial performance of DTMFIs the study sought to analyze how the cost of banking services affected the respondents' decision in delivering financial services to the DTMFIs' clients in Kenya.

Descriptive statistics results for the Cost of banking service

The study intended to determine the financial cost implications of lending methods as a key determinant of DTMFI performance. Majority of the respondents reported to incur cost on appraising clients' loan applications and documentation of clients' application being scored at 69.5%, and 54.9% respectively. Other related cost were searching for clients' information where only 14.7% of the respondents reported clients' to be willing to disclose their periodical financial report during loan processing period. Although this requires to identify and screen clients regularly, majority of respondents (40.3%) disagreed on regularly incurring such costs, (35.3%) agreed with the statement and approximately (24.4%) of the respondents were undecided. Loan administrative cost were not common among the DTMFIs as only 39% of the respondents reported DTMFIs charge small amounts of administration cost to their clients while 34.1% were undecided, and the remaining 26.8% reported not to charge administration costs. Supervision cost of branch managers, debt collection, client visit and compliance costs were reported in most DTMFIs. Although supervision costs were reported to increase cost of the DTMFIs, they were regularly reviewed by 30.5% of the respondents and greatly reduced where DTMFIs upheld good relationship with their customers. Most (98.8%) of the respondents agreed to have a policy in place on enforcement and loan recovery. Such policy may not involve legal implications since 50.0% of the respondents disagreed to incur legal charges on clients. However, clients were expected to comply with loan repayment as majority of the respondents (63.4%) reported to incur compliance costs with only 9.8% disagreeing. Non-compliant clients may increase DTMFIs cost during debt collection as observed in 43.9% of respondents agreeing to regularly incurring debt collection costs, (40.3%) disagreeing while about 15.9% not supporting or opposing the statement. On the other hand, a large number (90.2%) of respondents stated that the firm makes regular visits to clients though not with the intention of investigating their clients as only 25.6% agreed to incur cost of investigations about clients.

Factor analysis results for cost of banking services as a determinant of financial performance of DTMFIs Factor Results

Table 1: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.625	16.407	16.407	2.625	16.407	16.407
2	1.812	11.323	27.730	1.812	11.323	27.730
3	1.637	10.234	37.964	1.637	10.234	37.964
4	1.528	9.552	47.517	1.528	9.552	47.517
5	1.414	8.835	56.351	1.414	8.835	56.351
6	1.105	6.905	63.257	1.105	6.905	63.257
7	1.057	6.604	69.861	1.057	6.604	69.861
8	.878	5.485	75.345			
9	.771	4.820	80.165			
10	.676	4.222	84.387			
11	.592	3.700	88.087			
12	.557	3.483	91.570			
13	.452	2.825	94.394			
14	.364	2.274	96.669			
15	.291	1.822	98.490			
16	.242	1.510	100.000			

Extraction Method: Principal Component Analysis.

The results in Table 1 above reveals that, the Eigen-values corresponding to the first seven principal components are more than the cut-off value of 1 and the cumulative variance they explain is 69.86%, thus the factors in seven principal components were considered for analysis.

Table 2: Component matrix for cost of banking services

	Component						
	1	2	3	4	5	6	7
We usually incur costs of appraising our clients' loan application	.507	-.469	.221	-.028	-.006	-.061	.222
We usually incur a lot of costs on documentation of clients application	.681	.171	.358	.129	-.056	.249	-.129
Costs of search of information about clients are always high	.090	-.565	.093	.402	.030	.041	.559
We charge small amounts of administration costs to our clients	.691	.118	-.040	.123	-.062	.134	-.391
We regularly review supervision cost of branch managers	.688	.162	.012	-.155	-.017	-.125	-.093
We regularly incur costs on debt collection	.602	.095	.454	-.012	.110	-.155	.108
We usually incur legal charges on our clients	-.011	-.298	-.259	.564	-.223	.479	-.197
We regularly incur costs on identifying and screening our clients	.440	.290	-.574	-.116	.267	.092	.121
This firm makes regular visits to our clients' premises	-.030	-.256	.485	-.015	.612	.067	-.038
We have procedures in place for management of loans that we extend to our clients	-.107	.111	.149	.520	.429	-.454	-.302
We regularly make visits to our clients	-.053	.703	.131	.258	-.277	.007	.262
We usually incur compliance costs towards making our clients pay back freely	.329	-.061	-.438	.092	-.180	-.639	.198
Our clients regularly disclose their periodical financial reports to us	-.105	.574	.309	.002	.027	.212	.439
Our good relationship with our customers has reduced supervision costs	.231	-.239	.240	.078	-.666	-.088	-.026
We have a policy in place about enforcement and loan recovery	.183	-.242	-.107	-.726	.057	.158	.060
We always incur costs on investigations about our clients	.410	.029	-.464	.316	.396	.213	.232

Extraction Method: Principal Component Analysis.

a. 7 components extracted.

The results in Table 2 shows that the first principle component is mainly composed of administration cost to clients, supervision cost of branch managers, cost of documentation of clients application, debt collection costs

and clients appraisal costs with factor loadings of 69.1%, 68.8%, 68.1%,60.2% and 50.7% respectively. Regular visit to clients and clients' disclosure of financial reports mainly formed the second principle component with factor loadings of 70.3% and 57.4% respectively. The forth principle component is mainly made up of legal charges and procedure for management of loans with factor loadings of 56.4% and 52 respectively. The fifth factor is mainly regular visits to clients' premises with a factor loading of 61.2%.

Regression Results

The study was set out to determine the effect of all independent variables, which were, loan products, cost of banking services, lending methods, lending interest rates, and loan repayment periods on financial performance of DTMFIs in Kenya. A multiple linear regression model was developed for the study (equation 1).

$$P = \alpha_0 + \alpha_1 L + \alpha_2 M + \alpha_3 I + \alpha_4 C + \alpha_5 R + \varepsilon \quad \dots\dots\dots (1)$$

Where;

P = Performance of DTMFI

α_0 = Intercept

L = Loan Products

M = Delivery of service Mechanism

I = Lending interest Rates

C = Costs of banking services

R = Repayment loans Rates

$\alpha_1 - \alpha_5$ = Coefficients parameters

ε = Error term

The dependent variable was the financial performance (P) while the independent variables were Loan products (L), delivery methods (M), lending interest rates (I), cost of banking services (C) and repayment rates (R). Table 3 shows the regression analysis output with the Chi- square tests.

Table 3: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	113.412 ^a	68	.000
Likelihood Ratio	102.973	68	.004

Correlation Results of the Variables

Correlation analysis was used to estimate a sample correlation coefficient denoted r , which ranges between -1(indicating a strong negative correlation) and +1 (indicating a strong positive correlation). Correlation coefficient quantifies the direction and strength of the linear association between the two variables. Pearson's correlation coefficient was thus used to measure the degree of relationship between the financial performance and cost of banking services. P-value was used to determine the significance of the variables using the criterion that a p-value less than 0.05level of significance indicate presence of a significant relationship.

Table 4: Correlation Results between Dependent and Independent Variables

		Financial Performance
Financial Performance	Pearson Correlation	1
	Sig. (2-tailed)	
	N	82
Cost of banking services	Pearson Correlation	.393*
	Sig. (2-tailed)	.000
	N	82

*.Correlation is significant at 0.05 levels (2-tailed).

From the Table 4 above, it can be concluded that, there is no significant relationship between financial performance and cost of banking.

Table 5: Multiple Regression Coefficient Estimates

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.480	.611		4.055	.000
Cost of banking services	.283	.095	.319	2.987	.004

Table 5 shows the standardized and unstandardized coefficient values for different independent variable, standard error and significance of the variable. In this study, the following multiple regression model was adopted;

$$P = \alpha_0 + \alpha_1 L + \alpha_2 M + \alpha_3 I + \alpha_4 C + \alpha_5 R + \varepsilon$$

Where;

P = Performance of Deposit- taking Micro finance institutions

α_0 = Intercept

L = Loan Products

M = Delivery of service Mechanism

I = Lending interest Rates

C = Costs of banking services

R = Repayment loans Rates

$\alpha_1 - \alpha_5$ = Coefficients parameters

On supplying the coefficient estimates in Table 5, the equation above becomes

$$P = 2.480 + 0.009L + 0.206M - 0.132I + 0.283C - 0.059R$$

From the results, the intercept term was estimated to be 2.480. This coefficient was statistically significant at 5% level of significance (p value=0.000) and is interpreted to mean that the financial performance index is estimated to be 2.48 when the independent variables are held constant. The cost of banking services significantly (p value=0.004) influence the financial performance of MFIs and a unit increase in the cost of banking services results to about 0.283 increase in financial performance index.

Hypothesis Testing

The general multiple regression models for the hypothesis were:

$$P = \alpha_o + \alpha_1 L + \alpha_2 M + \alpha_3 I + \alpha_4 C + \alpha_5 R + \varepsilon$$

H0: there is no significant effect of the cost of banking services on financial performance of DTMFIs.

Again, Table 6 shows that there is a significant positive relationship between financial performance and cost of banking service as indicated by the correlation coefficient of 0.393 and a p-value (0.000) < 0.05. This implies that an increase in the cost of banking services leads to an increase in financial performance of DTMFIs and vice versa hence the reason of failing to reject the null hypothesis as the decision rule was to reject H0 if P-value ≤ 0.05 otherwise fail to reject H0 if P-value is > 0.05.

Table 6: Summary of Hypotheses Test Results

Hypothesis	P-values	Decision
H0: there is no significant effect of the cost of banking services on financial performance of DTMFIs.	0.000	Accepted H0

Discussion

The overall purpose of the objective was to evaluate the effects of cost of banking services as a determinant of financial performance of DTMFIs. To realize the objective the key indicators that were used were transaction costs and operating costs which were both found to be applicable. Using the inferential statistics the analysis found that there was a significant positive relationship between financial performance and cost of banking service implying that an increase in the cost of banking services led to an increase in financial performance of DTMFIs in the concluded studies.

On correlation analysis the results showed that there was a significant positive relationship between financial performance and cost of banking service as indicated by the correlation coefficient of 0.393 and a p-value (0.000) < 0.05. Transaction costs represented by administration cost to clients 69.1%, cost of documentation of clients' application 68.1%, clients' appraisal costs 50.7% among others were found to be the main cost element affecting the performance of banking services. Operating costs represented by supervision costs 68.8%, debt collection costs 60.2%, and visits to the clients' premises 70.3% together with enforcement costs 77.4% were the key costs that the respondents said were the overheads which led in the operating costs.

In general, the correlation results were supported by the central bank of Kenya annual reports that showed the cost per borrower totals in the period under review in the DTMFIs sector reduced from ksh.589 in 2009 to Ksh.505 in 2013 translating to 14% reduction (CBK, 2013). This led to a customer deposit growth of 13.8% in the whole sector. Therefore, cost of banking service as indicated in the correlation analysis as well as the financial report of the CBK over the years had significant effects in determining the financial performance of DTMFIs in Kenya. The finding was supported by Rosenberg, Gonzalez and Narain (2009) who stressed in their conclusions that it was important to keep in mind the other transaction costs for the borrower, including spending time away from their businesses, transportation expenses, and the negative impact of delays in receiving loan funds. The costs are less easily quantifiable but may factor into the decisions that borrowers make about when they choose to obtain loans.

Conclusion

The research findings led to the conclusions on cost of banking services that had transaction cost elements and operating cost elements as the indicators had effects on the performance of the DTMFIs. As reflected by the inferential statistics, there was a significant positive relationship between cost of banking services and financial performance of the DTMFIs. Therefore, cost of banking service had significant effects on the institutions' financial performance could be applied to determine the level of financial performance for a unit increase in cost also led to an increase in the financial performance. For the DTMFIs to show better results in their financial performance efficiency in applying innovative and creative methods should be used in the management.

Recommendations

On cost of banking services the transformed microfinance institutions should do internal audit in all their departments to discover other components of cost other than the two. This will lead them to be more prudent and seal any financial issues that are likely to cause the DTMFIs not to perform better than the analysis findings in the cost elements discussed. The study used only two independent variables and one dependent variable. Other aspects of increasing the conceptual framework can be sought further to justify other determinants of financial performance of the DTMFIs. The results obtained were basically from the employees of the DTMFIs more research can be done using the approach of clients to compare the responses and final results.

Study contributions

The study was geared to describe cost banking services as a determinant of financial performance of deposit-taking microfinance institutions in Kenya. The statistical methodologies worked well indicated that the cost of banking services was a key determinant of financial performance. The DTMFIs among others should realize that the variable significantly had effects on the dependent variable (financial performance). For the DTMFIs to show better results in their financial performance efficiency in applying innovative and creative methods should be used in the management.

Areas for further research

The study used only two independent variables and one dependent variable. Other aspects of increasing the conceptual framework can be sought further to justify other determinants of financial performance of the DTMFIs. The results obtained were basically from the employees of the DTMFIs more research can be done using the approach of clients to compare the responses and final results.

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