International Journal of
Finance and Accounting
(IJFA)

DETERMINANTS OF EFFECTIVE DEBT COLLECTION IN COMMERCIAL BANKS IN KENYA

PETER KITONGA

International Journal of Finance And Accounting
ISSN xxxx-xxxx (Paper) ISSN 2518-4113 (Online)
Vol.2, Issue 7, No.1 pp 1 - 23, 2017

DETERMINANTS OFEFFECTIVE DEBT COLLECTION IN COMMERCIAL BANKS IN KENYA

[1*]Peter Kitonga,

Post Graduate Student, Chandaria School of Business

United States International University

***Corresponding Author's Email: kitongap@gmail.com**

Abstract

Purpose: The purpose of this study was to determine the determinants of effective debt collection practices in Kenyan commercial banks.

Methodology: The research was carried out through descriptive survey design. The total population of the study was 1118credit managers/supervisors or branch managersof the 37 commercial banks. A sample size of 118 respondents was selected through random sampling technique, which represents a 10% of the population. The study used both secondary and primary data specifically the study used a questionnaire as the preferred data collection tool. The questionnaire had close ended questions only. Secondary data on the level of Nonperforming loans/Gross loans was also collected. This study used the quantitative method of data analysis. Quantitative methods of data analysis included inferential and descriptive statistics. Descriptive statistics included frequencies and measures of tendency mainly mean. Inferential statistics include correlation and regression analysis. The tool for data analysis was Statistical Package for Social Sciences (SPSS) version 20 program. The results were presented using tables and pie charts to give a clear picture of the research findings.

Results: Results indicated that staff competence was highly emphasized in the banks. Results also revealed that the banks had invested in management information systems which were easy to use and compatible with other bank systems in place. Correlation results led to conclusion that that the relationship between staff competency and non-performing loans is negative and significant. It was concluded that the bank also had invested heavily intechnological resources to ensure smooth work flow of employees. Correlation results led to the conclusion that the relationship between financial resources and non-performing loans is negative and significant. The study further concludes that that the relationship between information technology management and non-performing loans is negative and significant. The findings imply that information technology has significant negative effect on non-performing loans.

Policy recommendation: The study also recommends that investment in Information technology be emphasized in the banks as it has an effect on the overall achievement of competitive advantage. Therefore the organization is urged to invest in management information systems which are easy to use and which facilitate minimization of administration and operational costs.

Keywords: *staff competency, financial resources, information management, debt collection*

1.1Background of the Study

Commercial banks play a pivotal role in the economy in the intermediation process by mobilizing deposits from surplus units to deficit units. The surplus is channeled to deficit units through lending. Lending is one of the main activities of commercial banks and any other financial institutions in Kenya. This is evident by the size of loans that form banks assets and the annual substantial increase in the amount of credit granted to borrowers in the country. Loan portfolio is naturally the largest asset and the largest source of income for banks. In view of the significant contribution of loans to the financial health of banks through interest income generated, these assets are considered the most important assets of banks (Nelson & Schwedt, 2006).

Nelson and Kalani (2009) conducted a study on commercial banking crises in Kenya: cause and remedies‘. The statement of the problem for the study is many financial institutions that collapsed in Kenya since 1986 failed due to non-performing loans. This study investigated the causes of nonperforming loans, the actions that bank managers have taken to mitigate that problem and the level of success of such actions. Using a sample of 30 managers selected from the ten largest banks the study found that national economic downturn was perceived as the most important external factor. Customer failure to disclose vital information during the loan application process was considered to be the main customer specific factor. The study further found that lack of an aggressive debt collection policy was perceived as the main bank specific factor, contributing to the non performing debt problem in Kenya.

1.2 Statement of the Problem

Financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank’s counterparties (Gil &Diaz, 1994). In unstable economic environments, interest rates charged by banks are fast overtaken by inflation and borrowers find it difficult to repay loans as real incomes fall, insider loans increase and over concentration in certain portfolios increases giving a rise to credit risk. Bank failures in Mexico were attributed to improper lending practices, lack of experience, organizational and informational systems to adequately assess credit risk in the falling economy (Gil &Diaz, 1994). The same can be said about of banking crisis in Kenya in the 1980s and in Spain in the 1990s. The problem that this study wishes to address is that debt collection is a pertinent managerial problem that if not addressed would lead to lower profitability and in extreme cases bank failure. Do effective debt collection practices really matter to commercial banks? If they do, then they should significantly contribute to profits as high profits are expected to enhance shareholder value.

Several studies have analyzed the effect of debt collection management practices on profitability. Olufunso, Herbstand and Lombard (2009), Nelson et al. (2009) and Musyoki and Kadubo (2011) analyzed the impact of credit risk management on the financial performance of Banks in Kenya for the period 2000 – 2006 and concluded that default rate, bad debts costs and cost per loan asset have an inverse impact on banks’ financial performance, however the default rate is the most important determinant of bank financial performance vis-à-vis the other indicators of credit risk management. The research had a gap since it did not address the effect of debt collection

management practices on profitability. Looking at the emphasis that is laid on effective debt collection management in Kenyan commercial banks, the level of contribution of this factor to profits has not been sufficiently analyzed. There is scarcity of studies done on determinants of effective debt collection in Kenyan commercial banks. Most studies on commercial banks have looked at the effect of credit risk management on performance of banks. It is therefore for these research gaps that this study wishes to establish the determinants of effective debt collection in Kenyan commercial banks.

1.3 Purpose of the Study

The purpose of this study was to determine the determinants of effective debt collection practices in Kenyan commercial banks.

1.4 Research Questions

The study was guided by the following research questions:

1.4.1 To what extent does staff competency affect the effectiveness of debt collection in commercial banks?

1.4.2 What is the effect of financial resources on the effectiveness of debt collection in commercial banks?

1.4.3 To what extent does information management affect effectiveness of debt collection in commercial banks?

2.0 LITERATURE REVIEW

2.1 Empirical Review

2.2 Effect of Staff Competency on Effectiveness of Debt Collection

According to Boyatzis (2007), a competency is defined as a capability, ability or an underlying characteristic of an individual which is casually related to effective or superior performance. It is a set of related but different sets of behavior organized around an underlying construct, which we call the “intent”. The behaviors are alternate manifestations of the intent, as appropriate in various situations or times. It is important to clarify the difference between the concepts of “competence” and “competency”; competence refers to areas of work in which the person is competent and competency refers to the dimensions of behaviour underlying competent performance (Kagaari&Munene, 2007; Palan, 2003). However, for purposes of this study, competency (and its related plural form) is adopted from Armstrong (2000) as a hybrid term containing the two aspects of competence and competency. Thus, the concept of competency is used to refer to applied knowledge and skills, performance delivery, and the behaviours required getting things done very well (Armstrong & Baron, 1995).

2.2.1 Theory of Competence

Initially described as “Four Stages for Learning Any New Skill”, the theory was developed at the Gordon Training International by its employee Noel Burch in the 1970s. It has since been frequently attributed to Abraham Maslow, although the model does not appear in his major works. The Four Stages of Learning provides a model for learning. It suggests that individuals are initially unaware of how little they know, or unconscious of their incompetence. As they recognize their incompetence, they consciously acquire a skill, then consciously use it.

Eventually, the skill can be utilized without it being consciously thought through: the individual is said to have then acquired unconscious competence. Several elements, including helping someone 'know what they don't know' or recognize a blind spot, can be compared to some elements of a Johari window, although Johari deals with self-awareness, while the four stages of competence deals with learning stages (Flower, 1999).

2.3 Resources and Effectiveness of Debt Collection

Wernerfelt (1984) argued that a resource is anything which could be thought of as strength or a weakness of a given firm. More formally, a firm's resource at a given time could be defined as those (tangible and intangible) assets which are tied semi permanently to the firm. Examples of resources are: brand names, in-house knowledge of technology, employment of skilled personnel, trade contracts, machinery, efficient procedures, and capital.

Grant (1991), resources are the inputs into the production process. Amit and Shoemaker (1993) defines resources as all input factors, both tangible and intangible, human and non-human, that are owned and controlled by the firm and that enter into the production of goods and services to satisfy human wants. Itami (1987) distinguishes that the two categories of resources are tangible and intangible. The tangible resources are the easiest to identify and evaluate. They are reflected on the balance sheets of the firm and are valued with accounting criteria. Intangible resources are more difficult to identify and value. No property rights are clearly defined as they are based on noncodified information. Hall (1993) considers intangible resources as the intellectual property, rights of patents, trademarks, copyright and registered designs, trade secrets, contracts and licenses, databases, information in the public domain, personal and organization networks, employee know how, professional advisers, suppliers and distributors, reputation of products and company, and organizational culture.

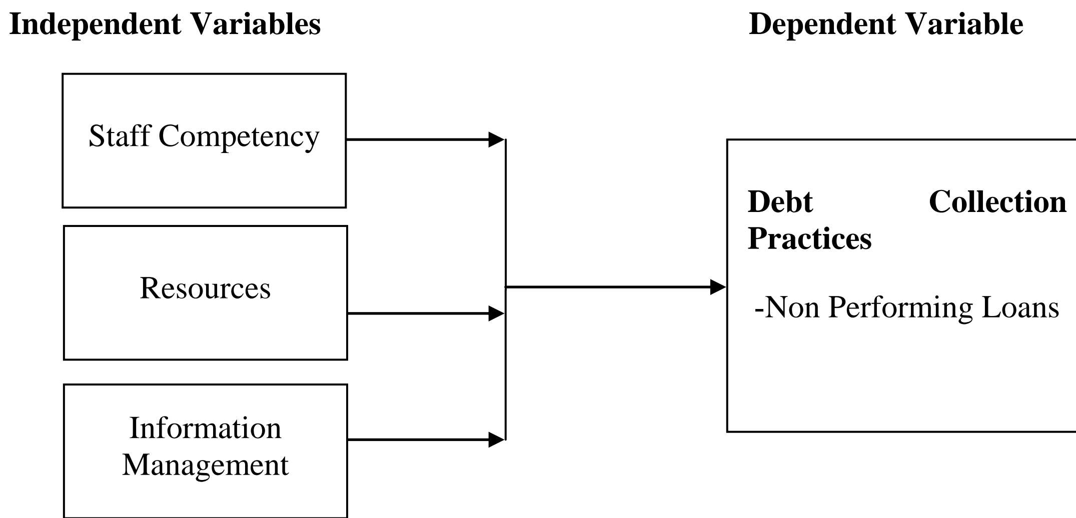
2.4 Information Management and Effectiveness of Debt Collection

Information management (IM) is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in, or a right to that information. Management means the organization of and control over the planning, structure and organisation, controlling, processing, evaluating and reporting of information activities in order to meet client objectives and to enable corporate functions in the delivery of information (Cronin, 1990).

2.4.1 Systems Theory

Systems theory springs from biology and its content are applicable to many fields of study. Systems theory can be defined as a working hypothesis, the main function of which is to provide a theoretical model for explaining, predicting, and controlling phenomenon (Bertalanffy, 1962). One common element of all systems is described by Kuhn (1974) as knowing one part of a system enables us to know something about another part. The information content or a "piece of information" is proportional to the amount of information that can be inferred from the information (Kuhn, 1974). Systems can be either controlled (cybernetic) or uncontrolled. In controlled systems information is sensed, and changes are effected in response to the information. Kuhn (1974) refers to this as the detector, selector, and effector on functions of the system.

2.5: Conceptual Framework



3.0 METHODOLOGY

The research was carried out through descriptive survey design. The total population of the study was 1118credit managers/supervisors or branch managersof the 37 commercial banks. A sample size of 118 respondents was selected through random sampling technique, which represents a 10% of the population. The study used both secondary and primary data specifically the study used a questionnaire as the preferred data collection tool. The questionnaire had close ended questions only. Secondary data on the level of Nonperforming loans/Gross loans was also collected. This study used the quantitative method of data analysis. Quantitative methods of data analysis included inferential and descriptive statistics. Descriptive statistics included frequencies and measures of tendency mainly mean. Inferential statistics include correlation and regression analysis. The tool for data analysis was Statistical Package for Social Sciences (SPSS) version 20 program. The results were presented using tables and pie charts to give a clear picture of the research findings

4.0 RESULTS FINDINGS

4.1 Staff Competency and Effective Debt Collection Practices

The first objective of the study was to investigatethe effect of staff competency on the effectiveness of debt collection in commercial banks. The results were presented as follows.

4.1.1 Employees Receive Induction Training

The respondents were asked to indicate whether every new employee receives induction training, 51.5% of the respondents strongly agreed and 32.2% agreed bringing to a total of 83.9% of those who agreed. Ten point three per cent disagreed while 2.3% strongly disagreed and 3.4% of the respondents were neutral. The results are presented in table 4.2 below.

Table 1: Induction Training

Statement		Frequency	Per cent
Every new employee receives induction training	Strongly disagree	2	2.3%
	Disagree	9	10.3%
	Neutral	3	3.4%
	Agree	28	32.2%
	Strongly agree	45	51.7%

Source: Author (2014)

4.1.2 Learning about Duties during Induction Training

The respondents were asked if learning about the duties of the job was included in the induction training, forty seven point one per cent of the respondents agreed and another 20.7% strongly agreed bringing to a total of 67.8% of those who agreed. Eighteen point four per cent of the respondents disagreed while 5.9% strongly disagreed and 6.9% of the respondents were neutral. Results are presented in table 2below.

Table 2: Learning about the Duties of the Job

Statement		Frequency	Per cent
Learning about the duties of the job is included in the induction training	Strongly disagree	6	6.9%
	Disagree	16	18.4%
	Neutral	6	6.9%
	Agree	41	47.1%
	Strongly agree	18	20.7%

Source: Author (2014)

4.1.3 ON Job Training

The respondents were asked to indicate if on the job training was important and effective in improving employee performance. Table 4.5 indicates that 41.4% of the respondents strongly agreed and another 36.8% agreed bringing to a total of 78.2% of those who agreed. Eight per cent of the respondents disagreed while 8.0% strongly disagreed and 5.7% were neutral. Results are presented in Table 4.5 below.

Table 3: On the Job Training

Statement		Frequency	Per cent
On the job training is important and effective in improving employee performance	Strongly disagree	7	8.0%
	Disagree	7	8.0%
	Neutral	5	5.7%
	Agree	32	36.8%
	Strongly agree	36	41.4%

4.1.4 Training Improves Knowledge Gap

The study sought to find out whether training has improved the knowledge gap about the bank, which has helped the respondents adjust comfortably to the work environment. A majority (44.8%) of the respondents strongly agreed and another 37.9% agreed bringing to a total of 82.7% of those who agreed, 8% strongly disagreed and another 5.7% disagreed. Only 3.4% of the respondents were neutral. Results are presented in Table 4.6 below.

Table :4Training Improves Knowledge Gap

Statement		Frequency	Per cent
Training has improved my knowledge gap about the bank, which has helped me adjust comfortably to the work environment.	Strongly disagree	7	8.0%
	Disagree	5	5.7%
	Neutral	3	3.4%
	Agree	33	37.9%
	Strongly agree	39	44.8%

Source: Author (2014)

4.1.5 Staff Exchange Programs

The study sought to find out whether the bank encourages staff exchange programs with other employees who improves work knowledge and productivity. A majority (47.1%) of the respondents agreed and another 39.1% strongly agreed bringing to a total of 86.1% of those who agreed, 5.7% disagreed. Only 8% of the respondents were neutral. Results are presented in Table 4.7 below.

Table 5:Staff Exchange Programs

Statement		Frequency	Per cent
The bank encourages staff exchange programs with other employees which improves work knowledge and productivity	Strongly disagree	0	0.0%
	Disagree	5	5.7%
	Neutral	7	8.0%
	Agree	41	47.1%
	Strongly agree	34	39.1%

Source: Author (2014)

4.2 Resources and Effective Debt Collection Practices

The second objective of the study was to determine theeffect of financial resources on the effectiveness of debt collection in commercial banks. The results were presented as follows.

4.2.1 Bank Provides Vehicles for Staff Mobilization

The study sought to find out if the bank provides vehicles for staff mobilization while carrying out their duties, forty two point five per cent of the respondents agreed and another 32.2% strongly agreed bringing to a total of 74.7% of those who agreed. Thirteen point eight per cent of

the respondents disagreed, 3.4% strongly disagreed and 8% were neutral. Results are presented on Table 6 below.

Table 6: Bank Provides Vehicles for Staff Mobilization

Statement		Frequency	Per cent
The bank provides vehicles for staff mobilization while carrying out their duties	Strongly disagree	3	3.4%
	Disagree	12	13.8%
	Neutral	7	8.0%
	Agree	37	42.5%
	Strongly agree	28	32.2%

Source: Author (2014)

4.2.2 Bank Provides Airtime for Debt Collection

The study sought to find out whether the bank provides airtime for staff in debt collection department for follow up calls. A majority (50.6%) of the respondents strongly agreed and another 36.8% agreed bringing to a total of 87.4% of those who agreed, 3.4% disagreed. Only 6.9% of the respondents were neutral. Results are presented in Table 10 below.

Table 7: Bank Provides Airtime for Debt Collection

Statement		Frequency	Per cent
The bank provides airtime for staff in debt collection department for follow up calls	Strongly disagree	2	2.3%
	Disagree	3	3.4%
	Neutral	6	6.9%
	Agree	32	36.8%
	Strongly agree	44	50.6%

Source: Author (2014)

4.2.3 Enough Personnel in Debt Collection Department

The study sought to find out if the bank has enough number of staff in the debt collection department, forty one point four per cent of the respondents agreed and another 27.6% strongly agreed bringing to a total of 69% of those who agreed. Seventeen point two per cent of the respondents strongly disagreed, 10.3% disagreed and 3.4% were neutral. Results are presented on Table 8below.

Table 8: Enough Personnel in Debt Collection Department

Statement		Frequency	Per cent
The bank has enough number of staff in the debt collection department	Strongly disagree	15	17.2%
	Disagree	9	10.3%
	Neutral	3	3.4%
	Agree	36	41.4%
	Strongly agree	24	27.6%

Source: Author (2014)

4.2.4 Employees are well remunerated

The study sought to find out whether the employees of the bank are well remunerated to avoid corruption issues. A majority (37.9%) of the respondents strongly agreed and another 37.9% agreed bringing to a total of 75.8% of those who agreed, 11.5% disagreed and 3.4% strongly disagreed. Only 9.2% of the respondents were neutral. Results are presented in Table 9 below.

Table 9: Employees are Well Remunerated

Statement		Frequency	Per cent
The employees of the bank are well remunerated to avoid corruption issues	Strongly disagree	3	3.4%
	Disagree	10	11.5%
	Neutral	8	9.2%
	Agree	33	37.9%
	Strongly agree	33	37.9%

Source: Author (2014)

4.2.5 Bank has Invested in Technological Resources

The study sought to find out whether the bank has invested heavily in technological resources to ensure smooth work flow of employees. A majority (39.1%) of the respondents strongly agreed and another 36.8% agreed bringing to a total of 75.9% of those who agreed, 16.1% disagreed and 1.1% strongly disagreed. Only 6.9% of the respondents were neutral. Results are presented in Table 10 below.

Table 10: Bank has Invested in Technological Resources

Statement		Frequency	Per cent
The bank has invested heavily in technological resources to ensure smooth work flow of employees	Strongly disagree	1	1.1%
	Disagree	14	16.1%
	Neutral	6	6.9%
	Agree	32	36.8%
	Strongly agree	34	39.1%

Source: Author (2014)

4.3 Information Management and Effective Debt Collection Practices

The third objective of the study was to determine to what extent information management affects effectiveness of debt collection in commercial banks. The results were presented as follows.

4.3.1 Bank has invested inManagement Information System

The study sought to find out whether the bank has invested in a management information system which is easy to use. A majority (42.5%) of the respondents agreed and another 31% strongly agreed bringing to a total of 73.5% of those who agreed, 11.5% disagreed and 3.4% strongly disagreed. Only 11.5% of the respondents were neutral. Results are presented in Table 11 below.

Table 11: Bank has Invested in Management Information System

Statement		Frequency	Per cent
The bank has invested in a management information system which is easy to use	Strongly disagree	3	3.4%
	Disagree	10	11.5%
	Neutral	10	11.5%
	Agree	37	42.5%
	Strongly agree	27	31.0%

Source: Author (2014)

4.3.2 Management Information System and Minimization of Administrative Costs

The respondents were asked to indicate if the bank has invested in a management information system which has enabled the minimization of administrative costs. A majority (40.2%) of the respondents strongly agreed and 32.2% agreed bringing to a total of 72.4% of those who agreed, 14.9% disagreed, 8% were neutral and 4.6% of the respondents strongly disagreed. Results are presented in Table 12 below.

Table 12: Management Information System and Minimization of Administrative Costs

Statement		Frequency	Per cent
The bank has invested in a management information system which has enabled the minimization of administrative costs	Strongly disagree	4	4.6%
	Disagree	13	14.9%
	Neutral	7	8.0%
	Agree	28	32.2%
	Strongly agree	35	40.2%

Source: Author (2014)

4.3.3 Bank Management Information System Compatibility

The respondents were asked to indicate whether the core banks management information system was compatible with other systems, a majority (34.5%) of the respondents agreed and another 29.9% strongly agreed bringing to a total of 66.9% of those who agreed. Only 16.1% of the respondents disagreed while 13.8% were neutral and only 5.7% of the respondents disagreed. Results are presented in Table 13 below.

Table 13: Bank Management Information System Compatibility

Statement		Frequency	Per cent
The core banks management information system is compatible with other systems	Strongly disagree	5	5.7%
	Disagree	14	16.1%
	Neutral	12	13.8%
	Agree	30	34.5%
	Strongly agree	26	29.9%

Source: Author (2014)

4.3.4 Bank Management Information System Flexibility

The respondents were asked to indicate whether the management information system was flexible enough to supports the growth of the bank, a majority (57.5%) strongly agreed and another 34.5% agreedbringing to a total of 92% of those who agreed. Four point six per cent disagreed while 3.4% were neutral. Results are presented in table 14 below.

Table 14: Bank Management Information System Flexibility

Statement		Frequency	Per cent
The management information system is flexible enough to supports the growth of the bank	Strongly disagree	0	0.0%
	Disagree	4	4.6%
	Neutral	3	3.4%
	Agree	30	34.5%
	Strongly agree	50	57.5%

Source: Author (2014)

4.3.5 Management Information System in Assisting Employees

The respondents were asked to indicate if the management information system of the bank has been crucial in assisting employees to enhance their performance and productivity. A majority (47.1%) of the respondents strongly agreed and another 44.8% agreed bringing to a total of 91.9% of those who agreed, 1.1% disagreed while 2.3% strongly disagreed and another 4.6% of the respondents were neutral. Table 15 presents the findings.

Table 15: Management Information System in Assisting Employees

Statement		Frequency	Per cent
The management information system of the bank has been crucial in assisting employees to enhance their performance and productivity	Strongly disagree	2	2.3%
	Disagree	1	1.1%
	Neutral	4	4.6%
	Agree	39	44.8%
	Strongly agree	41	47.1%

Source: Author (2014)

IPRJB
INTERNATIONAL PEER REVIEWED JOURNAL AND BOOK PUBLISHING
www.iprjb.org

4.3.6 Staffs have Time to Chat Informally with Their Colleagues

The respondents were asked to indicate if the staffs usually have time to chat informally with their colleagues. A majority (56.3%) of the respondents agreed and another 5.7% strongly agreed bringing to a total of 62% of those who agreed, 18.4% disagreed while 13.8% strongly disagreed and another 5.7% of the respondents were neutral. Table 16 presents the findings.

Table 16: Staffs have Time to Chat Informally with Their Colleagues

Statement		Frequency	Per cent
Staff usually have time to chat informally with their colleagues	Strongly disagree	12	13.8%
	Disagree	16	18.4%
	Neutral	5	5.7%
	Agree	49	56.3%
	Strongly agree	5	5.7%

Source: Author (2014)

4. 4 Non Performing Loans

Table 17 indicates that there was a slight increase of the non-performing loans in the year 2011 to the year 2012 and a decline in the following year from 1132735 to 1008214. This implies that the banks had put effective measures on debt collection hence the decline in the number of amount of the non-performing loans.

Table 17: Descriptive Statistics for Non-Performing Loans

Year	Minimum	Maximum	Mean	Std. Deviation
2011	0	9342775	1008214	1656600
2012	0	10475335	1132735	1796020
2013	0	9342775	1008214	1656600

Source: Author (2014)

4.5 Inferential Statistics

4.5.1 Bivariate Correlation

The correlation results between banks profitability and independent variable are presented. Table 18 displays the results of correlation test analysis between the dependent variable (non-performing loans) and independent variables (staff competency, resources and information management) and also correlation among the independent variables themselves. Results on Table 18 show that non-performing loansisnegatively correlated with all the independent variables. This reveals that any negative change in staff competency, resources and information management led to increased number of nonperforming loans in the commercial banks.

Table 18: Bivariate Correlation

Variable		Average NPL	StaffCompetency	Resources	InformationManagement
AverageNPL	Pearson Correlation	1			
	Sig. (2-tailed)				
StaffCompetency	Pearson Correlation	-0.424	1		
	Sig. (2-tailed)	0.000			
Resources	Pearson Correlation	-0.408	0.577	1	
	Sig. (2-tailed)	0.000	0.000		
InformationManagement	Pearson Correlation	-0.212	0.896	0.61	1
	Sig. (2-tailed)	0.049	0.000	0.000	

Source: Author (2014)

4.5.2 Regression Analysis

In order to establish the statistical significance of the independent variables on the dependent variable (non-performing loans) regression analysis was employed. The regression equation took the following form.

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu$

Where

Y = Non Performing Loans

X_1 = Staff Competency

X_2 = Resources

X_3 = Information Management

In the model, β_0 = the constant term while the coefficient β_ii= 1….3 was used to measure the sensitivity of the dependent variables (Y) to unit change in the predictor variables. μ is the error term which captures the unexplained variations in the model.

Regression analysis was conducted to empirically determine whether staff competency, resources and information managementwere significant determinant of non-performing loans in commercial banks. Regression results in Table 4.22 show that the coefficient of determination also called the R square is 41.9%. This means that the combined effect of the predictor variables (staff competency, resources and information management) explains 41.9% of the variations in nonperforming loans. The correlation coefficient or R of 64.7% indicates that the combined effect of the predictor variables has a strong and positive correlation with non-performing loans.

Table 19: Regression Model Fitness

Indicator	Coefficient
R	0.647
R Square	0.419
Std. Error of the Estimate	1310091

Source: Author (2014)

Analysis of variance (ANOVA) on Table 4.23 shows that the combined effect of staff competency, resources and information management was statistically significant in explaining changes in non-performing loans. This is demonstrated by a p value of 0.000 which is less that the acceptance critical value of 0.05.

Table 20: ANOVA

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.03E+14	3	3.42E+13	19.939	0.000
Residual	1.42E+14	83	1.72E+12		
Total	2.45E+14	86			

Source: Author (2014)

Table 20displays the regression coefficients of the independent variables. The results reveal that staff competency, resources and information management was statistically significant in explaining non-performing loans. Regression results indicate that staff competency and non-performing loans had a negative and significant relationship (beta= -3942193, p value 0.000). The findings imply that an increase in staff competency by one unit leads to a decrease in non-performing loans by 3942193units. Results further indicate that resources and non-performing loans had a negative and significant relationship (beta= -1075872, p value 0.049). The findings imply that an increase in resources availability by one unit leads to a decrease in non-performing loans by 1075872units.

Finally, the results indicate that information management and non-performing loans had a negative and significant relationship (beta= -3022081, p value 0.000). The findings imply that an increase in information management by one unit leads to a decrease in non-performing loans by 3022081units.

Table 21 : Regression Coefficients

Variable	Beta	Std. Error	t	Sig.
Constant	7089303	1239821	5.718	0.000
StaffCompetency	-3942193	659273	-5.98	0.000
Resources	-1075872	293866.5	-3.661	0.000
InformationManagement	-3022081	566845.7	-5.331	0.000

Source: Author (2014)

$$Profit\ margin = -1.195 + 0.148\ Interest\ income\ to\ Total\ Income\ Ratio + 0.2\ Non\ Interest\ Income\ Ratio - 0.789\ Non\ Interest\ Expenses\ Ratio - 0.123\ Liquidity\ Ratio + 1.301\ Asset\ Quality\ Ratio + 0.061\ Financing\ Ratio$$

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

Regression results indicate that there is a positive relationship between profit ratio and interest income ratio. This was evidence by a regression coefficient of 0.148 (p value = 0.012). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in interest income ratio by 1 unit leads to an increase in profit margin by 0.148 uni*t*s.

Regression results indicate that there is a positive relationship between profit ratio and non-interest income ratio. This was evidence by a regression coefficient of 0.200 (p value = 0.007). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non-interest income ratio by 1 unit leads to an increase in profit margin by 0.200 uni*t*s..

Regression results indicate that there is a negative relationship between profit ratio and non-interest expense ratio. This was evidence by a regression coefficient of -0.789 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non-interest expense ratio by 1 unit leads to an decrease in profit margin by 0.789 uni*t*s.

Regression results indicate that there is a negative relationship between profit ratio and liquidity ratio. This was evidence by a regression coefficient of -0.213 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in liquidity ratio by 1 unit leads to a decrease in profit margin by 0.213 uni*t*s.

Regression results in indicate that there is a positive relationship between profit ratio and asset quality ratio. This was evidence by a regression coefficient of 1.301 (p value = 0.009). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset quality ratio by 1 unit leads to an increase in profit margin by 1.301 uni*t*s.

Regression results indicate that there is a positive relationship between profit ratio and financing ratio. This was evidence by a regression coefficient of 0.061 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset financing ratio by 1 unit leads to an increase in profit margin by 0.061 uni*t*s.

5.2 Conclusions

The study concluded thatSACCO FOSAs had a lower share capital than DTMs. This is because there are regulations as to the minimum capital that a DTM should have. The current regulations by CBK are ksh 60,000,000. The study also concluded that DTMS have a higher profitability ratio than Sacco FOSAs. The significant difference in profit margin is explained by the difference in objectives and mission of the two organizations. SACCOs have a mission to

empower their members and profitability is not the overriding objective. DTMS on the other hand charge very high interest rates and are guided by strong profit objectives. The study concluded that SACCO FOSAs have a lower non-interest expense ratio compared to DTMS. This may mean that FOSA SACCOs may be more efficient compared to DTMs .This may be explained by the low salary costs and administration costs for SACCOs as opposed to DTMs.

The study concluded that SACCO FOSAs had lower liquidity than the DTMs. This may be explained by the regulations on reserves that have been pt in place by the Central Bank of Kenya. On the other hand, SASRA does not put such strict restriction on cash reserves. The study concluded that SACCO FOSAs have a higher asset quality compared to DTMS. This may be explained by the fact that FOSA SACCOs are stricter on the amount that a borrower borrows and applies strict policies on guarantors and collateral. The study concluded that SACCO FOSAs have a lower financing ratio compared to DTMS. This may be explained by the fact that FOSA SACCOs source majority of the funds from member's deposits as opposed to DTMs that may source funds from commercial banks and still lend at a higher interest rate This study concludes that results that there is a positive relationship between profit ratio and interest income ratio. Therefore, an increase in interest income ratio by leads to an increase in profit margin. This study concludes that results there are a positive relationship between profit ratio and non-interest income ratio. An increase in non-interest income ratio leads to an increase in profit margin this study concludes that results there are a negative relationship between profit ratio and non-interest expense ratio. An increase in non-interest expense ratio leads to an decrease in profit margin

Regression results indicate that there is a negative relationship between profit ratio and liquidity ratio. An increase in liquidity ratio leads to a decrease in profit margin. Regression results in indicate that there is a positive relationship between profit ratio and asset quality ratio. An increase in asset quality ratio leads to an increase in profit margin.The study concluded that t there is a positive relationship between profit ratio and financing ratio. An increase in asset financing ratio to an increase in profit margin

5.3 Policy Recommendations

This study recommends that financialinstitutions should improve the interest income ratio by aggressive marketing their loans products and expanding their market territory. This is because there is a positive relationship between profit ratio and interest income ratio. This study recommends that financial institutions should improve the non-interest income ratio as doing so would be beneficial. This is because there is a positive relationship between profit ratio and non-interest income ratio. An increase in non-interest income ratio leads to an increase in profit margin

This study recommends that financial institutions should improve the non-interest expense ratio by cutting down on the administrative cost. This is because thereis a negative relationship between profit ratio and non-interest expense ratio. An increase in non-interest expense ratio leads to a decrease in profit margin and it is the financial institutions interest to reduce the non-interest expense. This study recommends that financial institutions should improve their liquidity ratio by ensuring that a minimal non interest yielding assets/cash have been retained. This is because there is a negative relationship between profit ratio and liquidity ratio. An increase in liquidity ratio leads to a decrease in profit margin. This study recommends that financial institutions should improve on the asset quality ratio through aggressive credit risk management

practices. This will include best practices credit appraisal and debt collection. This is because there is a positive relationship between profit ratio and asset quality ratio. An increase in asset quality ratio leads to an increase in profit margin This study recommends that financial institutions should improve the financing ratio through acquiring extra funding from other sources. This is because there is a positive relationship between profit ratio and financing ratio. An increase in asset financing ratio to an increase in profit margin

5.4Limitations of the study

One of the limitations of the study was that the study did not address the impact of interest rate risk management on the profitability of financial institutions. The study failed to investigate whether SACCO FOSAs and DTMs have interest rate risk hedging instruments and whether such instruments affects the profitability of the financial institutions.

The study results are also limited since it did not address the impact of credit risk management on the profitability of financial institutions. The study did not highlight the existence and effectiveness of various credit risk management practices. For instance, the study failed to show whether the financial institution use the 5 Cs of credit management and the Know Your Customer Policy (KYC).

The study results are also limited because they did not address the role of corporate governance mechanism on the profitability of financial institutions. . For instance, the study did not address the role of separation of power between chairman and CEO, existence of a competence board and the formation of board committees on the financial performance of SAACOS FOSAs

The study results are also limited since it did not address the role of human resource and motivation aspect on the financial and non-financial performance of financial institutions. Therefore, failure to use non-financial measures of performance implies that the measurement of financial performance was narrow.

5.5 Suggestions for Further Research

Suggested further areas of study should be on the impact of interest rate risk management on the profitability of financial institutions. Future studies should concentrate on investigating whether SACCO FOSAs and DTMs have interest rate risk hedging instruments and whether such instruments affects the profitability of the financial institutions.

Future studies should address the impact of credit risk management on the profitability of financial institutions. Future areas should focus on the existence and effectiveness of various credit risk management practices. For instance, the study should show whether the financial institution use the 5 Cs of credit management and the Know Your Customer Policy (KYC).

Future studies should address the role of corporate governance mechanism on the profitability of financial institutions. For instance, the study needs to address the role of separation of power between chairman and CEO, existence of a competence board and the formation of board committees on the financial performance of SAACOS FOSAs

Future studies should focus on the role of human resource and motivation aspect on the financial and non-financial performance of financial institutions. Therefore, future studies should focus on the use of non-financial measures of performance. This is because the use of the measurement of financial performance was narrow.

REFERENCES

Anderson, C. Leigh, Laura Locker, and Rachel Nugent, 2002, *"Microcredit, social capital, and common pool resources, World Development"* pp. 32, 95-105.

BAILEY.T. 2001.,*"Applying international best practices to South Africa's SACCOs"* Published dissertation, South Africa: De Mont fort University.

Bourke, P., (1989), *Concentration and Other Determinants of Bank Profitability in Europe, N. America and Australia*, Journal of Banking and Finance, Vol. 13, Pp 65 – 79.

Bett J. K. (2007) "*Effects of Lending Interest Rates On Profitability ofSavings,Credit And CooperateSocieties In Kenya*. Retrieved from www.uonbi.ac.ke/faculties/turntopdf.php?project_*id=6275*on 23rd August, 2012.

Bruett, T. (2005), *Measuring performance of microfinance institutions: A framework for reporting analysis, and monitoring.* SEEP Network.

Caudill, S, Gropper D, and Hartarska V. (2009). Which microfinance institutions are becoming more cost-effective with time? Evidence from a mixture model, *Journal of Money, Credit, and Banking*, 41:651-672

CGAP. (2003a).,*What is Microfinance*? Available on-line at www.cgap.org/portal/site/CGAP/menuitem.b0c88fe7e81ddb50678080105 91010a0 Accessed on 19 July 2012. Consultative Group To Assist thePoor.

Chaves, R.A., and C. Gonzales-Vega (1996), *The Design of Successful Rural Financial Intermediaries: Evidence from Indonesia,* World Development, Vol.24, No.1, pp.65-78.

Cooperman, E., Mills, D. and Gardner, J., (2000), *Managing Financial Institutions: An Asset/Liability Approach,* the Dryden Press, Harcourt College Publishers, Orlando, FI

Cull, R., Demigüc-Kunt, A. &Morduch, J. (2006) *Financial Performanceand Outreach: A global Analysis of Leading Microbanks.* World Bank Policy Research Working Paper. Washington, The World Bank.

Cull, R., Demigüc-Kunt, A. &Morduch, J. (2007) *Financial Performance and Outreach: A global Analysis of Leading Microbanks.* Economic Jouranl, vol 117, pp. F107-F133

Demirgue-kunt, A. and Huzinga, H., (1999), *Determinants of Commercial Bank Interest Margins and Profitability:* Some International Evidence.

Eyiah, Alex K, 2001, *"An integrated approach to financing small contractors in developing countries:A conceptual model, Construction Management and Economics"* pp. 19, 511-518.

Fehmeen, P., *Microfinance Problems – 9 Challenges for Microfinance Providers (Part 1)* Available on-line at http://microfinancehub.com/2010/02/09/problems-faced-by-microfinance-institutes/ Accessed on July 19, 2012

Galema, R and Lensink, R (2009). Microfinance commercialization: financially and socially optimal investments. Working Paper, University of Groningen.

Gomez, Rafael, and Eric Santor, 2001, *"Membership has its privileges: The effect of social capital and neighbourhood characteristics on the earnings of microfinance borrowers."* The CanadianJournal of Economics 34, 943-966.

Greene, J. and Gangemi, J. (2006), *Taking Tiny Loans to the Next Level,* Business Week. New York. 27 November.

Gutiérrez-Nieto, B. and Serrano-Cinca, C (2010). Factors influencing funder loyalty to microfinance institutions. *Nonprofit and Voluntary Sector Quarterly,* 39:302-320.

Guru, K.B. and Shanmugan, B., (1999), *Determinants of Commercial Banks Profitability in Malaysia,*www.afbc.banking.unsw.edu.au

Hermes, N and Lensink, R (2011). Microfinance: its impact, outreach and sustainability. *World Development,* 39:875-881.

Hossain, F. (2002),*Small Loans, Big Claims,* Foreign Policy 12, 79-82.

ING (2008), *"'A Billion to Gain? The Next Phase, a study on global financial institutions and microfinance'.* Amsterdam: ING Microfinance Support. Retrieved 15 June 2009, from the web: http://www.ingmicrofinance.com/uploads/ul_A%20Billion%20to%20Gain%20Next%20Phase,%20March%2008%20Adobe%207.pdf

J. C. Brau and G. M. Woller,*"Microfinance: A Comprehensive Review of the Existing Literature Journal of Entrepreneurial Finance and Business Ventures"* Vol. 9, Issue 1, 2004, pp. 1-26

Kaboski, J and Townsend, R (2011). A structural evaluation of a large-scale quasi-experimental microfinance initiative. *Econometrica,* 79:1357-1406

Kaboski, J., and Townsend, R. (2005). Policies and impact: an analysis of village-level microfinance institutions. *Journal of the European Economic Association*, 3:1-50.

Karlan, D., Zinman, J. (2009). Observing unobservables: identifying information asymmetries with a consumer credit field experiment, *Econometrica,* 77:1993–2008.

Kereta B. B. (2007), *"Outreach and Financial Performance Analysis of Microfinance Institutions in Ethipia"*retreaved from http://www.microfinancegateway.org/gm/document1.9.49812/Outreach%20and%20Financial%20Performance.pdf1.9.49812/Outreach%20and%20Financial%20Performance.pdf on 23rd August, 2012.

Kimutai, T.K., (2003), *"An Empirical Analysis of Factors Contributing to High Interest Rate Spreads in Kenya",* Unpublished MBA Thesis, UON.

Kyereboah-Coleman A., (2007)*"The impact of capital structure on the performance of microfinance institutions",*Journal of Risk Finance, The, Vol. 8 Iss: 1, pp.56 – 71Emerald Group Publishing Limited

Littlefield E., Rosenberg R.,*"Microfinance and the Poor: Breaking Down the Walls between Microfinance and the Formal Financial System"* Finance & Development 41, no. 2 (June 2004), 38 – 40

Mahinda PurityAnne-LucieLafourcade, Jennifer Isern, Matthew Brown, (2005), *Overview of the Outreach and Financial Performance of Microfinance Institutions in Africa,* extracted fromhttp://etdlibrary.ku.ac.ke/ir/bitstream/handle/123456789/5058/Mahinda,%20Purity%20Wamuyu.pdf?sequence=1 on 10th August, 2012

Margarida, A. and Mendes, V., (2000), *Commercial Bank Interest Margins and Profitability: Evidence for Some EU Countries.*

Michael T. and Gerard M., A *Comparison to Performance of Regional Commercial Banks by Geographic Regions,* Journal of Microfinance 2001 retrieved on 25th July 2012 from http://marriottschool.byu.edu/esrreview/articles/article106.pdfMicrofinance Act, 2006

Mishkin, F.S., (1998), *The Economicsof Money, Banking and Financial Markets*, Addison-Wesley, 5th Ed.

Mirichii John Mwaniki, (2003), *Financial performance of urban savings and credit co-operatives(SACCOS) in Nairobi,* MBA, United States International University-Africa, Kenya

Njagi Edward Moses, (2001), *Factors affecting performance of micro-finance institutions: a case study of Central Division of Embudistric,* Extracted frometd-library.ku.ac.ke/ir/handle/123456789/2154on 10th August 2012

Njihia, J.K., (2005), "*The Determinants of Bank Profitability: The Case of Commercial Banks in Kenya",* Unpublished MBA Thesis, UON.

Odunga, R.M., (2006), *"Comparison of Financial Performance between Listed and Unlisted Commercial Banks in Kenya",* Unpublished MBA Thesis, UON.

Otero, M. (1999),*Bringingdevelopment back into microfinance.* Latin America: ACCION International.

Otero Maria and RhyneWlizabeth (1994).*TheNew World of Micro Enterprise Finance* West Hartford, Kurmarian Press.

Pankaj K. Agarwaland S.K. Sinha*"Financial Performance of Microfinance Institutions of India – A cross-sectional study."*Delhi Business Review X Vol. 11, No. 2 (July - December 2010)

Pim Engels, *"Mission Drift in Microfinance The Influence of Institutional and Country Risk Indicators on the Trade-Off between the Financial and Social Performance of Microfinance Institutions"*

Pitt, Mark M., and Shahidur R. Khandker, 1998, *"The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter?"* The Journal of Political Economy 106, 958-996.

PROCASUR Africa, *"An Overview of SACCOs in Kenya 'In pursuit of ideas to develop Savings and Credit Cooperatives*. Learning from Kenyan SACCOs´ March 2012, Kenya

Robinson M.S, (2001), The*Microfinance Revolution: Sustainable Finance for the Poor*/, World Bank, New York

Robinson M. S. (1998) *The paradigm Shift from Credit Delivery to Sustainable Financial Intermediation*

Roodman, D and Morduch, J (2010). The impact of microcredit on the poor in Bangladesh: revisiting the evidence, NYU Wagner Research Paper No. 2010-09.

Rural Speed, 2005.,*Savings Habits, needs and priorities in rural Uganda* .USA: USAID.

Thomas T. Poleman,Stephen F. Gudz, and Eddy Ladue *"The potential role of microfinance institutions in mobilizing savings: lessons from Kenya and Uganda"* Working paper, Cornell University, Ithaca. July 1999.

Woller, Gary, 2002a, *"From market failure to marketing failure: Market-orientation as the key to deep outreach in microfinance"* Journal of International Development 14, 305-324.