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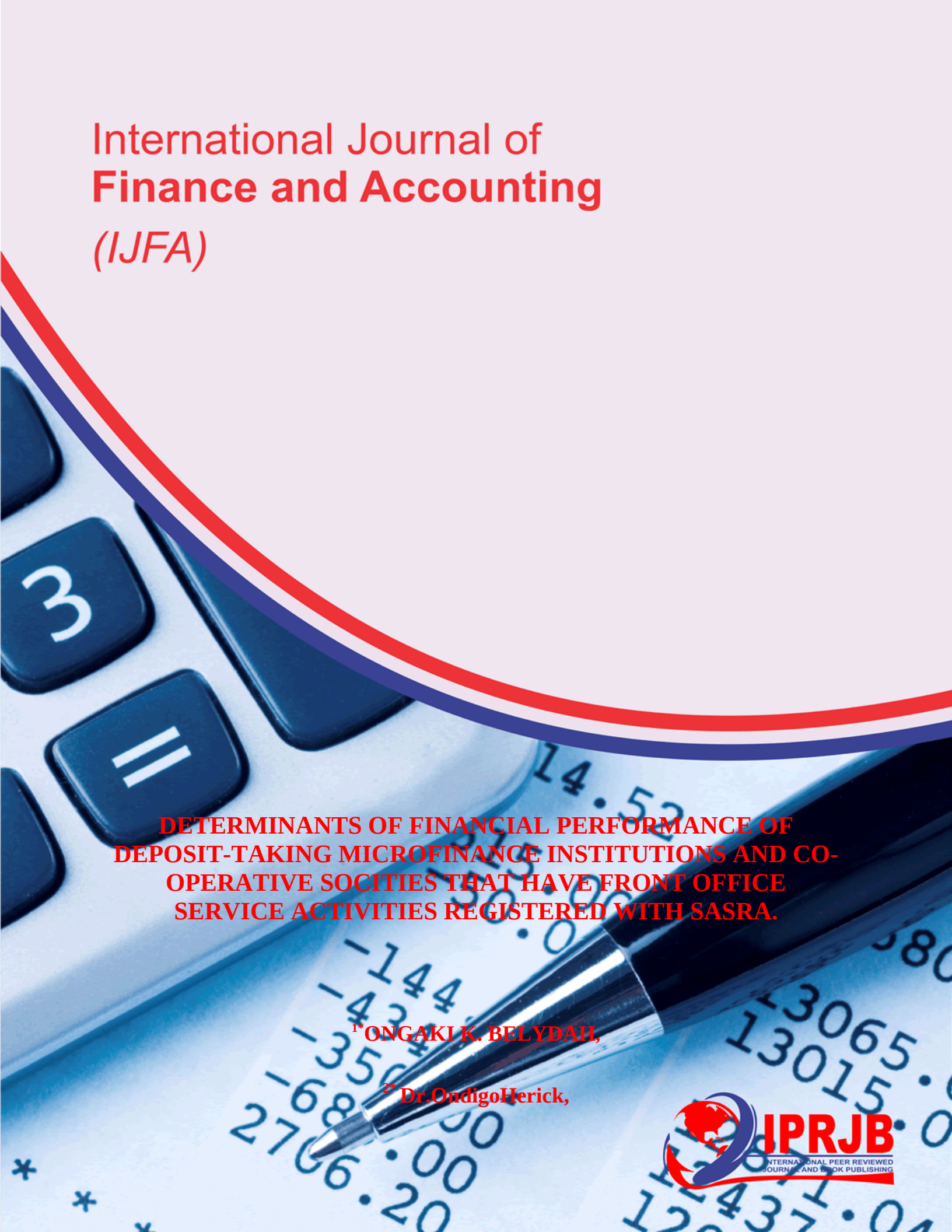

DETERMINANTS OF FINANCIAL PERFORMANCE OF DEPOSIT-TAKING MICROFINANCE INSTITUTIONS AND CO-OPERATIVE SOCITIES THAT HAVE FRONT OFFICE SERVICE ACTIVITIES REGISTERED WITH SASRA.

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Abstract

Purpose: The study aimed to examine thedeterminants of financial performance of deposit-taking microfinance institutions and co-operative societies that have front office service activities financial performance of portfolios of investment firms in Kenya.

Methodology: The research design was descriptive survey. The study used a sample of 11 Sacco FOSAs and 6 DTMs. Secondary data spanning three years (2009 to 2011) was used. A regression model was used to establish determinants of financial performance of deposit-taking microfinance institutions and co-operative societies that have front office service activities financial performance of portfolios of investment firms in Kenya.

Results: This study concludes 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 there is a positive relationship between profit ratio and non-interest income ratio. An increase in noninterest income ratio leads to an increase in profit margin. This study concludes that results there are a negative relationship between profit ratio and noninterest expense ratio. An increase in noninterest expense ratio leads to a 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.

Policy recommendation: This study recommends that financial institutions should improve the interest income ratio by aggressive marketing their loans products and expanding their market territory. They should also improve non-interest income ratio, non-interest expense ratio, financing ratio, liquidity ratio and asset quality ratio

Keywords: *financial performance, front office service, sasra*

1.1Background of the Study

The Kenyan Financial Sector has undergone numerous challenges and transformations during its relatively short span of its existence. Due to the need to survive and grow, financial institutions have had to re-invent and position themselves to maintain their market share and tap into emerging markets. Co-operative Societies in particular have been noted to depart from traditionally being a savings and credit institution to an institution that offers front office services that have long been a preserve of commercial banks such as operation of savings accounts and processing of salaries among other facilities. According to Kenya Union of Savings and Co-operatives(KUSCCO), Savings and Co-operative Societies (SACCOs) in Kenya or the SACCO movement in Kenya is billed as the largest in Africa and among the top 10 globally. With over Ksh 230 billion in assets and a savings portfolio estimated at Ksh 190 billion, the SACCO movement in Kenya constitutes a significant proportion, about 20 per cent, of the country'sdomestic savings.

The Sacco Societies Regulatory Authority (SASRA) is a Semi-Autonomous Government Agency under the Ministry of Cooperative, Development and Marketing. It is a creation of the Sacco Societies Act 2008 and was inaugurated in 2009 charged with the prime responsibility to license and supervise deposit taking Sacco Societies in Kenya. On the other hand, MFIs are licensed and regulated byCBK. CBK licenses, supervises and regulatesMFIs. The CBK formulates and implements the Microfinance Act and regulations issued there under which govern the operations of Deposit TakingMicrofinance Institutions.

Among the reasons that have been cited as the main reasons why Co-operative Societies have diversified into deposit taking institutions is accelerated growth, enhanced profitability, diversification of risk, reduction of tax liability, financial benefits and increased market power. On the other hand, Microfinance Institutions (MFI) are developing a variety of customized products and services some of which are geared towards satisfying needs that were previously best fulfilled by co-operative societies such as cheaper and easily obtainable short term loans and advances.

This study aims at establishing the factors that determine the profitability and financial performance of SACCOs and MFIs and the extent to which the factors do so. The two forms of organizations have increasingly diversified into the same line of business, offered similar products and services and targeted the same clientele. Ideally then their performance should be influenced by the same factors. This study will seek to establish the extent to which the each determinant influences performance and whether the two forms of institutions are affected by these determinants in a similar manner.

1.1.1 Measures ofFinancial Performance OfMfis And Saccos

Accounting based measures that involve analysis and interpretation of financial statements assist users in predicting the future by means of comparison, evaluation and trend analysis (Odunga, 2006). Since financial performance is deemed to be more important than fulfillment of social objectives, it is only right that accounting based measures shall be used to measure and compare financial performance of MFIs and SACCOs.

To capture the overall financial performance of these financial institutions, critical measurement parameters reflecting the various aspects of their performance will be selected for this study. The (1) operational self-sufficiency ratio, the (2) return on assets ratio, and the (3) profit margin ratio will be the key indicators of financial performance in this research.The selection of the financial performance indicators corresponds to the selection ofindicators considered by ING Micro Finance in their investment decision makingprocess.

These measures will adequately address the interest of the various stakeholders of the banks and therefore they are all relevant to the study. Taken together the measures will provide insights into how well the financial institutions have performed in comparison to past years, whether they are on track with business forecasts or if their business strategies are working as planned.

1.1.2 Factors Influencing MFIs and SACCOs Profitability in Kenya

Interest rate charged on loans advanced is one of main determinant of financial performance of financial institutions. Interest rate is seen as the price lenders expect (or in this case, the borrowers pay) for exchanging current claims for greater future claims to goods and services. Interest rates therefore represent cost of money (Kimutai, 2003). Non-Interest income forms another source of the institutions' income, which includes service charge on deposits (that is, payments for the services provided by the institution and include charges on: opening of accounts, banker's cheque processing, salary processing, loan processing, commission, account closing among others) and income from other non-deposit activities (Njihia, 2005)

The level of Non-Interest expenses affects the rate of profitability of financial institutions. The differences in the mix of an institution's activities have an impact on spreads and profitability (Demirgue-kunt and Huzinga, 1999). Margarida and Mendes (2000) observed that the net interest margin reacts positively to operating costs. Guru and Shanmugan (1999) noted efficiency in expense management as one of the most significant determinants of commercial bank's profitability.

According to Demirgue-kunt and Huzinga (1999), financial institutions with relatively high non interest earning assets are less profitable. Margarida and Mendes (2000) observed that the loan to asset ratio has a positive impact on interest margins and profitability. Customer deposit composition also influences levels of income. Guru and Shanmugan (1999) in their research noted that current account deposit was the most profitable probably because there is no direct interest paid on the deposits while time and savings deposits accounts tend to be less profitable.

1.1.3 Deposit Taking MFIs

The MFIs were 53 in total as at December 2010 according to Association of Microfinance Institute of Kenya. Of these, 6 are licensed as deposit taking microfinance institutions and are regulated by Central Bank of Kenya under the Microfinance Act, 2006 and Agency guideline for DTMs issued there under.

Poleman (1999) identified the 3 crucial roles of MFIs in Kenya's economy as: assisting entrepreneurs and their households increase the amount, accessibility and security of accumulated savings that can be seen asdeferred consumption which can be used to improve the welfare and social standing of a household, advancement of loans primarily for investment in working capital and means through which clients are instructed on effective uses of micro-loans

and savings by gathering clients into loan groups, supporting loan distribution, and meeting with borrowers to discuss the progress and payment of their loans.

1.2 Research Problem

There have been many reforms in Kenya since the late 1990s with an aim of improving profitability, efficiency and productivity of institutions in the finance sector. Commercial banks' had left a substantial gap in service delivery to financial services users particularly low income earners. MFIs and SACCOs have registered remarkable growth as the unbanked population expanded and started patronizing their services. MFIs and SACCOs are viewed predominantly as instruments of social change and their performance is often measured by non-financial parameters. However, the accepted criteria in a number of studies to study the performance of any MFI have been the twain of Financial Performance and Outreach (Chaves and Gonzales-Vega 1996, Ledgerwood 1999, Yaron, 1992, Yaron 1994, Yaron et al., 1998, as cited in Arsyad, 2005). In Kenya, the implementation of the Microfinance Act 2006 and the appointment and institutionalization of SASRA as the regulator of the SACCO has had a great impact on the operations of these institutions. The need for growth and survival in the dynamic financial market has resulted in the expansion of various institutions in the last 10 years. SACCOs have in particular shifted from just being a collection of individuals with similar interests who pool funds to enable members to borrow from the pool and at affordable costs to full-fledged financial institutions that offer services that were primarily a reserve of commercial banks. However, there is sufficient empirical evidence that poor performance is manifest in these institutions evidenced by low performance of indicators including: high levels of credit risk to members, poor quality loans, limited and or inadequate capitalization, operational inefficiencies, higher incidences of non-performing loans, higher levels of liquidity risk; among others. Although these are mentioned as constraint areas affecting MFIs and SACCOs' performance, they are based on a few studies and non-elaborate methods to generate sufficient conclusions.

This study is therefore an extension of the studies undertaken on the factors that determine the profitability of MFIs and SACCOs with a view of generating sufficient information on these institutions. The study adopts the fundamental indicators that influence financial institutions' performance in general and have been utilized in most studies available.

Much of the literature in this area addresses the social worth of microfinance organizations (e.g., Bruett, 2005), measuring for example; the impact of village level

MFIs (Menkhoff and Rungruxsirivorn 2011; Kaboski and Townsend, 2005), the impact of microcredit on the poor (Karlan and Zinman 2010; Roodman and Morduch 2010; Kaboski and Townsend 2011), costs and benefits of subsidies (Armendáriz and microfinance and mission drift (Armendáriz and Szafarz 2011). Other studies include efficiency of MFIs (Gutiérrez-Nieto et al, 2010; Caudill, Gropper and Hartarska 2009), microfinance commercialization (Montgomery and Weiss 2011; Galema and Lensink 2009), outreach sustainability trade off (Hermes and Lensink 2011; Cull, Demirgüc-Kunt and Morduch 2007) and performance and corporate governance (Mersland and Strøm, 2009).

Cull et al. (2007) found evidence that raising interest rates resulted in increased profitability forindividual based lending MFIs whereas for solidarity based lenders, the reverse is true.This paper also found evidence that raising the interest rates lead to improved financialperformance

and profitability with lower subsidy dependence and higher operationalself-sufficiency. Pankaj and Sinha(2010)came to the conclusion that most of the best performing firms are following different business models in India. This is reflected in 13 out of 22 parameters studied. However, in other areas especially in risk coverage, debt equity ratio, productivity, cost per borrower and operational self-sufficiency among others, there exists similarity between the firms performance. Ahlin et al. (2011) examine the determinants of performance of MFIs were variables, such as self-sufficiency, borrower growth or loan-size growth are estimated by macroeconomic variables as well as macro-institutional factors, such as corruption control. One of their main conclusions include that MFIs performance is not necessarily good or sometimes worse in the country where institutions are more advanced.

Locally, Njagi (2001) made an investigation of factors affecting performance of micro-finance institutions: a case study of Central Division of Embu district in 2011 and concluded that the key reasons behind low performance of the institutions included limited financial resources, loan defaults by recipients, poor management information systems and poor research and development departments among others. Mahinda (2005) carried out a study to evaluate the use of financial performance indicators by microfinance institutions in Nairobi. The study also looked at the relationship between the sources of finance and the financial performance indicators used by these MFIs.Mirichii (2003) looked at financial performance of urban savings and credit co-operatives (SACCOS) in Nairobi.

There have been a number of studies on the performance of MFIs and on SACCOs. There has however, been limited up-to-date scholarly work detailing factors that explain microfinance profitability. The focus of this study is therefore to answer the question, what are the determinants of financial performance of SACCOs and MFIs?

1.3 Objectives of the Study

(i) To establish the determinants of the financial performance of MFIs and SACCOs with FOSA in Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical review

2.2.1 Savings of the Poor Theory

Robinson (2001) contends that savings are more crucial to microfinance members than credit. The theory focuses on voluntary savings mobilized from the public. People choose to save excess liquidity for future use and this excess liquidity can be mobilized by financial institutions serving low income people. Proponents of this theory argue that MFIs and SACCOs are an important part of the solution to poor people's problems with dead capital. Savings accounts in regulated financial institutions are legally recognized assets and often the first that poor families acquire. Their banks accounts are fungible assets (live capital), and since banks are legally accountable for their savers deposits the deposits can be used as collateral for loans and mortgages. Regulated MFIs and SACCOs with FOSA provide voluntary savings accounts that are appropriate for low income savers and are legally recognized as loan capital. These deposits rarely earn notable interest and are cheap capital for investment by these institutions. Therefore,

higher amounts of deposits should lead to higher profitability depending on how the funds are utilized.

2.3 Empirical Review

A study by Speed (2005) identified the following benefits which confirm earlier revelations by Bailey's (2001) study. Savings that make members eligible for a loan is the key benefit that a RFI member gets from the MFI or SACCO. Free sensitization, education and training on saving from RFIs and SACCOs on a range of issues, ranging from saving products and services to business practices, health and HIV among other social issues. Members become shareholders in the respective institutions that they save with. Exchange visits with more developed SACCOs or MFIs, such visits are used as forums and case studies through which members are educated on the importance and benefits of saving organizations. There are also added services: such as, money transfers as is the case for deposit taking MFIs and SACCOs.

The aim of microfinance according to Otero (1999) is not just about providing capital to the poor to combat poverty on an individual level, it also has a role at an institutional level. It seeks to createinstitutions that deliver financial services to the poor, who are continuously ignored by the formalbanking sector. Littlefield and Rosenberg (2004) state that the poor are generally excluded from thefinancial services sector of the economy, so MFIs have emerged to address this market failure. Byaddressing this gap in the market in a financially sustainable manner, an MFI can become part of the formal financial system of a country and so can access capital markets to fund their lending portfolios,allowing them to dramatically increase the number of poor people they can reach (Otero, 1999).

In a comprehensive review of literature carried out by Brau and Woller (2004), a conclusion was made that MFIs provide similar products and services to their customers as formal sector financial institutions. The scale and method of delivery differ, but the fundamental services of savings, loans, and insurance are the same. Notwithstanding, to date most efforts to formalize microfinance have focused on enterprise lending (loans for enterprise formation and development) which remain by far today the dominant product offered by MFIs (Nourse (2001), Woller (2002a)). This, however, has slowly begun to change. Increasingly today MFIs have begun to offer additional products, such as savings, consumption or emergency loans, insurance, and business education. Nourse (2001) reviews the context and rise of microfinance products and argues there is a need for savings and insurance services for the poor and not just credit products. He goes on to argue that MFIs need to provide tailored lending services for the poor instead of rigid loan products. Supporting this latter assertion of Nourse (2001), Eyiah (2001) develops a model of small construction management contractors and MFIs in developing countries that provides a tailored lending structure for microenterprise contractors.

Gomez and Santor (2001) provide empirical evidence of the importance of social collateral. In an empirical study of 612 group borrowers and 52 individual borrowers in Canada, they report that group lending and the presence of neighbors have a positive correlation with self-employment earnings. It follows that borrowers with higher earnings will have an easier time of servicing their microloans and performance of MFIs and SACCOs depends on the profile of its members.

3.0 METHODOLOGY

The research design was descriptive survey. The study used a sample of 11 Sacco FOSAs and 6 DTMs. Secondary data spanning three years (2009 to 2011) was used. A regression model was used to establish determinants of financial performance of deposit-taking microfinance institutions and co-operative societies that have front office service activities financial performance of portfolios of investment firms in Kenya.

4.0 RESULTS FINDINGS

4.1 Descriptive

4.1.1 Summary statistics

The study sought to examine and compare the average of the ratios and financial indicators across the two groups of financial institutions. The two groups of financial institutions were represented by 11 SACCO FOSAs and 6 DTMS. The findings were presented in table 4.1. The results indicate that the 11 SACCO FOSAs had a mean share capital of ksh 54,281,870.75. The maximum observed share capital was ksh 313,609,936.54. The minimum observed share capital was ksh 574,000. The results indicate that the 6 DTMs had a mean share of ksh 91,271,388.89. The maximum observed share capital was ksh 134,550,000. The minimum observed share capital was ksh 60,000,000. The combined average of the two groups of financial institutions was ksh 67,336,994.80. The standard deviation results indicate that there was higher variability of share capital among SACCO FOSAs compared to DTMs (standard deviation of ksh75, 021,901.57 for SACCO FOSAs and ksh 18,892,040.35 for DTMs).

Results reveal that the 11SACCO FOSAs had a mean profitability ratio of 21.98%. The minimum observed profit ratio was 1% and the maximum was 58%. The results indicate that the 6 DTMs had a mean profit ratio of 48.55%. The minimum observed profit ratio was 29% and the maximum profit ratio was 68%. The average profit margin of the two groups of financial institutions was 31.36%. The standard deviation results indicate that there was higher variability of profit ratios among SACCO FOSAs compared to DTMs (standard deviation of 14.66% for SACCO FOSAs and 10.86% for DTMs).

Results in table 1 reveal that the 11 SACCO FOSAs had a mean interest ratio of 90.18%. The minimum observed interest income ratio was 65% and the maximum was 94%. The results indicate that the 6 DTMs had a mean profit ratio of 93.53%. The minimum observed profit ratio was70% and the maximum profit ratio was 96%. The average profit margin of the two groups of financial institutions was 91.36%. The standard deviation results indicate that there was higher variability of profit ratios among SACCO FOSAs compared to DTMs (standard deviation of 14.508% for SACCO FOSAs and 15.391% for DTMs).

Results in table 4.1 reveal that the 11 SACCO FOSAs had a mean interest income ratio of 90.18%. The minimum observed interest income ratio was 65% and the maximum was 94%. The results indicate that the 6 DTMs had a mean interest income ratio of 93.53%. The minimum observedinterest income ratio was70% and the maximum interest income ratio was 96%. The average interest income ratio of the two groups of financial institutions was 91.36%. The standard deviation results indicate that there was higher variability of interest income ratio

among DTMS compared to SACCO FOSAs (standard deviation of 14.508% for SACCO FOSAs and 15.391% for DTMs).

Findings in table 4.1 reveal that the 11 SACCO FOSAs had a mean non interest expense ratio of 26.62%. The minimum observed non interest expense ratio was 12% and the maximum was 54%. The results indicate that the 6 DTMs had a mean non interest expense ratio of 42.5%. The minimum observed non interest expense ratio was 30% and the maximum non interest expense ratio was 57%. The average non interest expense ratio of the two groups of financial institutions was 32.22%. The standard deviation results indicate that there was higher variability of non interest expense ratio among SACCO FOSAs compared to DTMs (standard deviation of 11.805% for SACCO FOSAs and 7.37% for DTMs).

Findings in table 4.1 reveal that the 11 SACCO FOSAs had a mean liquidity ratio of 0.1627. The minimum observed liquidity ratio was 0.07and the maximum was 0.28. The results indicate that the 6 DTMs had a mean liquidity ratio of 1.52. The minimum observed liquidity ratio was 1.03 and the maximum liquidity ratio was 2.29. The average liquidity ratio of the two groups of financial institutions was 0.643The standard deviation results indicate that there was higher variability of liquidity ratio among SACCO FOSAs compared to DTMs (standard deviation of 0.55 for SACCO FOSAs and 0.33for DTMs).

Results in table 4.1 reveal that the 11 SACCO FOSAs had a mean asset quality ratio of 97.96%. The minimum observed asset quality ratio was 93% and the maximum was 99%. The results indicate that the 6 DTMs had a mean asset quality ratio of 94.83%. The minimum observed asset quality ratio was 91% and the maximum asset quality ratio was 99%. The average asset quality ratio of the two groups of financial institutions 96.86%. The standard deviation results indicate that there was higher variability of asset quality ratio among SACCO FOSAs compared to DTMs (standard deviation of 0025 for SACCO FOSAs and 0.028for DTMs).

Results in table 4.1 reveal that the 11 SACCO FOSAs had a mean financing ratio of 2.12. The minimum observed financing ratio was 0.98 and the maximum was 4.31.The results indicate that the 6 DTMs had a mean financing ratio of 4.29.The minimum observed financing ratio was 2.5 and the maximum financing ratio was 7. The average financing ratio of the two groups of financial institutions was 2.88. The standard deviation results indicate that there was higher variability of financing ratio among SACCO FOSAs compared to DTMs (standard deviation of 0.917 for SACCO FOSAs 1.344 DTMs).

Table 1: Summary Statistics across SACCO FOSAS and DTMS

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Share capital plus reserves	SACCO FOSA	33	54,281,870.75	75,021,901.57	13,059,636.7	574,000.00	313,609,936.54
	DTMS	18	91,271,388.89	18,892,040.35	4,452,896.61	60,000,000.00	134,550,000.00
	Total	51	67,336,994.80	63,578,044.92	8,902,707.01	574,000.00	313,609,936.54
Profitability Ratio	SACCO FOSA	33	.2198	.14666	.02553	.01	.58
	DTMS	18	.4855	.10864	.02561	.29	.68
	Total	51	.3136	.18498	.02590	.01	.68
Interest Income to Total Income Ratio	SACCO FOSA	33	.9018	.14508	.02526	.65	0.94
	DTMS	18	.9353	.15391	.03628	.70	0.96
	Total	51	.9136	.14760	.02067	.65	0.95
Non Interest Expense Ratio	SACCO FOSA	33	.2662	.11805	.02055	.12	.54
	DTMS	18	.4250	.07371	.01737	.30	.57
	Total	51	.3222	.12901	.01807	.12	.57
Liquidity Ratio	SACCO FOSA	33	.1627	.05534	.00963	.07	.28
	DTMS	18	1.5236	.33946	.08001	1.03	2.29
	Total	51	.6430	.68742	.09626	.07	2.29
Asset Quality Ratio	SACCO FOSA	33	.9796	.02563	.00446	.93	0.99
	DTMS	18	.9483	.02843	.00670	.91	0.99
	Total	51	.9686	.03039	.00426	.91	0.99
Financing Ratio	SACCO FOSA	33	2.1232	.91756	.15973	.98	4.31
	DTMS	18	4.2933	1.34415	.31682	2.50	7.00
	Total	51	2.8891	1.50004	.21005	.98	7.00

4.1.2 Annual Trends (Overall)

Results in table 2 reveal that there was a consistent rise in the mean share capital of the 17 financial institutions. The share capital in year 2009 was ksh57,791,727.76. The share capital rose to ksh 66,460,486.93 in year 2010. The share capital further rose to ksh77,758,769.71 in the year 2011

Results in table 4.2 reveal that there was a consistent rise in other ratios over the three year these ratios were; profitability ratio, interest income ratio, non interest expense ratio, liquidity ratio, asset quality ratio, financing ratio.

Table 2: Annual Trends (Overall)

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Share_capital_plus_reserves	2009	17	57,791,727.76	54,816,720.78	13,295,007.64	574,000.00	233,080,592.00
	2010	17	66,460,486.93	63,039,228.90	15,289,258.78	660,100.00	268,042,680.80
	2011	17	77,758,769.71	73,755,897.81	17,888,432.77	772,317.00	313,609,936.54
	Total	51	67,336,994.80	63,578,044.92	8,902,707.01	574,000.00	313,609,936.54
Profitability_Ratio	2009	17	.2691	.15737	.03817	.01	.51
	2010	17	.3096	.18092	.04388	.01	.59
	2011	17	.3621	.21169	.05134	.02	.68
	Total	51	.3136	.18498	.02590	.01	.68
Interest_Income_to_Total_Income_Ratio	2009	17	.7841	.08361	.02028	.65	.94
	2010	17	.9019	.09617	.02333	.74	0.95
	2011	17	1.0549	.11259	.02731	.87	0.96
	Total	51	.9136	.14760	.02067	.65	0.95
Non_Interest_Expenses_Ratio	2009	17	.2766	.10681	.02591	.12	.43
	2010	17	.3181	.12274	.02977	.14	.49
	2011	17	.3720	.14379	.03488	.16	.57
	Total	51	.3222	.12901	.01807	.12	.57
Liquidity_Ratio	2009	17	.5519	.59384	.14403	.07	1.70
	2010	17	.6347	.68290	.16563	.08	1.96
	2011	17	.7425	.79893	.19377	.10	2.29
	Total	51	.6430	.68742	.09626	.07	2.29
Asset_Quality_Ratio	2009	17	.9583	.02889	.00701	.91	0.99
	2010	17	.9693	.02903	.00704	.92	0.99
	2011	17	.9782	.03158	.00766	.93	0.99
	Total	51	.9686	.03039	.00426	.91	0.99
Financing_Ratio	2009	17	2.4795	1.26746	.30740	.98	5.20
	2010	17	2.8514	1.45758	.35352	1.13	5.98
	2011	17	3.3363	1.70541	.41362	1.32	7.00
	Total	51	2.8891	1.50004	.21005	.98	7.00

4.2 Analytical Model

This section presented the model results. Table 3 indicated that the goodness of fit of the model was satisfactory. The coefficient of determination (R square) was 0.875. This implied that 87.5% of the variations in profit ratio were explained by the independent variables. This further implies that 12.5% of the variations in profit ratio were explained by other ratios not in the model.

Table 3: Goodness of fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935[a]	.875	.858	.06971

a. Predictors: (Constant), Financing_Ratio, Asset_Quality_Ratio, Non_Interest_Income_Ratio, Non_Interest_Expenses_Ratio, Interest_Income_to_Total_Income_Ratio, Liquidity_Ratio

Table 4 displays the results of the overall model significance. The results indicate that the f statistic of 51.344 was larger than the f critical. A p value of 0.00 indicates that the null hypothesis of " no significance" is rejected. These results indicate hat the overall model was significant.

Table 4: Overall model significance**.**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.497	6	.250	51.344	.000[a]
	Residual	.214	44	.005		
	Total	1.711	50			

a. Predictors: (Constant), Financing_Ratio, Asset_Quality_Ratio, Non_Interest_Income_Ratio, Non_Interest_Expenses_Ratio, Interest_Income_to_Total_Income_Ratio, Liquidity_Ratio

b. Dependent Variable: Profitability_Ratio

Regression results in table 4.5 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 unit*s*.

Regression results in table 4.5 indicate that there is a positive relationship between profit ratio andnon 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 unit*s*.

Regression results in table 4.5 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 unit*s*.

Regression results in table 4.5 indicate that there is a negative relationship between profit ratio and liquidity 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 liquidity ratio by 1 unit leads to a decrease in profit margin by 0.213 unit*s*.

Regression results in table 4.5 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 unit*s*.

Regression results in table 4.5 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 unit*s*.

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.195	.437		-2.735	.009
	Interest_Income_to_Total_Income_Ratio	.148	.095	.118	1.566	.012
	Non_Interest_Income_Ratio	.200	.108	.115	1.849	.007
	Non_Interest_Expenses_Ratio	-.789	.122	-.550	-6.490	.000
	Liquidity_Ratio	-.213	.029	-.792	-7.340	.000
	Asset_Quality_Ratio	1.301	.475	.214	2.738	.009
	Financing_Ratio	.061	.011	.497	5.363	.000

a. Dependent Variable: Profitability_Ratio

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

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 unit*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 unit*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 unit*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 unit*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 unit*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 unit*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 rateThis 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 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 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 financial institutions 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 there is 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.

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