Liquidity Management and Profitability of Microfinance Institutions (MFIs) in the Midst of the Anglophone Crisis in Cameroon: Case of MFIs Affiliated to MC^2 Operating in the Crisis Zones of Cameroon

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This paper tries to examine if liquidity management affects the profitability of MFIs affiliated to MC^2 in the midst of the ongoing Anglophone crisis especially MFIs operating in the crisis zones of Cameroon. Profitability was measured using return on asset, while Liquidity management was measured using cash ratio, current ratio and liquidity ratio. Data was collected from 70 MFIs affiliated to MC^2 which are located in the crisis zones and a methodology based on the estimation of panel data for the retained model and SPSS 11.0 was used to analyze data.

Keywords: liquidity, microfinance, profitability, cash.

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Keywords: liquidity, microfinance, profitability, cash.

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I. INTRODUCTION AND JUSTIFICATION OF THE RESEARCH

Liquidity management is an important tool for the management of MFIs; it reflects the organization's ability to repay short-term liabilities. Amengor (2010) defines liquidity MFIs as its ability to fund all contractual obligations as they fall due. These obligations may include lending and investment commitments and deposit withdrawals and liability maturates, in the normal course of business. The main objective for any MFIs is to reduce poverty and in order to do so, they need to be financially sustainable.

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Microfinance is a means of the struggle against poverty in developing countries in general and Cameroon in particular through financing activities that generate incomes for poor households. In order for these MFIs to continuously reach out to the poor and maintain their objective of reducing poverty, they need to be financially sustainable and liquidity management plays a very vital role in ensuring the sustainability of MFIs by guaranteeing profitability.

Microfinances were created with the main objectives of providing petite credit to women and low-income earners who were excluded from the formal banking system because they could not provide the collateral security that were demanded by these big banks. These women took these micro loans to do small businesses which could generate income for their households.

The industry's success in meeting the needs of its target clientele has resulted from its ability to overcome a lot of the barriers above which previously prevented poor and low-income earners from using formal financial services. In order for these MFIs to continuously reach out to the poor they need to manage their liquidity properly so as to stay sustainable. The issue of liquidity management is increasingly becoming problematic to many MFIs especially during this crisis period in Cameroon.

Many individuals who used to save heavily in MFIs were big business people and they in turn take heavy loans to run their businesses with but majority of them have now fled to other regions of the country for safety purpose while majority of those remaining in the crisis zones are the low income earners who are struggling to make ends meet and as such the saving rate has drop drastically and many of them are even afraid to take loans to do petite trade because of fear due to frequent lock downs, ghost towns, gun shoot in this crisis zones.

MFIs generally try to keep or maintain sufficient funds to meet unexpected demands from depositors, given they primarily deal with poor and low-income earners. Possible fallout of the crisis is an increase in the volume of nonperforming loans of financial institutions, as businesses have gone bankrupt, farmers have been unable to cultivate effectively due to difficulty in accessing farm lands, and the region's population and number of small business owners has reduced greatly. MFIs have struggled to survive, and some MFI branches have even shutdown in many areas due to the ongoing Anglophone. MFIs' profits have dropped in many cases. Nonetheless, there still exist lots of profitable investment opportunities in the region and beyond. While some MFIs have struggled to cope, others have opened new branches and recorded huge successes. One of the factors which may account for the sustainability of MFIs as seen in past research is proper liquidity management. In Cameroon in general and Northwest and Southwest in particular in the midst of the ongoing Anglophone crisis, whether or not liquidity management contributes to the profitability of MFIs remains largely unproven.

In order to seek for answers, the following research questions have been posed;

- What is the effect of liquidity management on the profitability of MFIs affiliated to MC²in the midst of the ongoing Anglophone crisis?
- What is the effect of the cash ratio on the profitability of MFIs affiliated to MC² in the midst of the ongoing Anglophone crisis?
- What is the effect of the current ratio on the profitability of MFIs affiliated to MC² in the midst of the ongoing Anglophone crisis?
- What is the effect of the liquidity ratio on the profitability of MFIs affiliated to MC² in the midst of the ongoing Anglophone crisis?

In order to answer the above mentioned research questions, the following hypothesis has been formulated in this paper:

- H_{01}: The cash ratio has no significant effect on the profitability of MFIs affiliated to MC² in the midst of the ongoing Anglophone crisis?
- H_{02}: The current ratio has no significant effect on the profitability of MFIs affiliated to MC² in the midst of the ongoing Anglophone crisis?
- H_{03}: The liquidity ratio has no significant effect on the profitability of MFIs affiliated to MC² in the midst of the ongoing Anglophone crisis?

This Paper will be organized as follows; 1: Introduction and justification of the research, 2: Literature Review, 3: Research Method and Specification of Model, 4: Data Analysis and Discussion of Findings and 5: Conclusion, Recommendations And Policy Implications.

II. LITERATURE REVIEW

2.1 Concept of Liquidity and Liquidity Management

2.1.1 Liquidity

Liquidity is important in financial services as it has an effect on the service provider's ability to meet daily withdrawals by clients (Francis, 2016). MFIs for example should have sufficient number of profitable assets in order to pay dividends to their shareholders and still be able to transfer to reserve. Liquid assets are important to have in times of crisis or emergency because they can be readily converted into cash. Without liquidity, money can become tied up in systems that are difficult to cash out of and even more difficult to assess for actual cash value (Chaplin et al., 2000).

Liquidity is the term mostly used to illustrate how easy it is to change both fixed and current assets to cash. The most liquid short term asset and what everything else is compared to is cash. This is can be explained by the fact that it can be used easily and immediately. Assets that can be converted to cash quickly are important to have in times of crisis or emergency especially in the ongoing Anglophone crisis in the Northwest and South west regions of Cameroon because they are readily converted into cash. During times of financial needs, large financial institutions close down due to lockdowns, ghost town, etc making it difficult for their customers to access the cash they need to buy basic needs like food, gasoline and other emergency supplies (Chaplin, Emblow & Michael, 2000).

No universally accepted definition has been fronted on liquidity; some scholars have defined it as the ability of a firm to ensure the availability of funds to meet its short term obligations. In the business of financial institutions, it can also be defined as its capacity to fund an increase in assets and meet both expected and unexpected cash and collateral obligations at a reasonable cost and without incurring unacceptable losses.

2.1.2 Liquidity Management

According to Choudhry (2011), liquidity management refers to the funding of deficits and investment of surpluses, managing and growing the balance sheet, as well as ensuring that the bank operates within regulatory and stipulated limits. Ideal bank management is an uninterrupted endeavour of assuring that a balance exists between liquidity, profitability, and risk (Banks, 2014). MFIs indeed require liquidity since such a large proportion of their liabilities are payable on demand (deposits) but typically the more liquid an asset is, the less it yields.

Liquidity management is inversely related to the performance of banks (Bassey, 2015). A liquidity management crisis was evident in the global financial crisis of 2007–08 (Dullien, 2010). This was the worst financial crisis raising fundamental questions about liquidity management (Basel Committee on Banking Supervision, 2013). During the crisis, banks were hit hardest by liquidity management

pressures cutting back sharply (Basel Committee on banking supervision, 2013). Major commercial banks like Lehman Brothers collapsed. Other banks were bailed out by the governments. The impact on the stock market was very severe as stocks shed prices (Basel Committee on Banking Supervision, 2013). In many areas the economy faced a huge financial blow, resulting in house evictions, foreclosures and prolonged unemployment (Basel Committee on Banking Supervision, 2013). The crisis underscored the role of liquidity management in commercial banks (Basel Committee on Banking Supervision, 2013).

2.2 Profitability of MFIs

Profitability is the ability to make surplus from all activities of an institution. It measures management efficiency in the use of organizational resources in adding value to the institution. Profitability may be regarded as a relative term measurable in terms of profit (surplus) and its relation with other elements that can directly influence the profit. Profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets.

The issue of institution's profitability and performance efficiency has been considered in a number of theoretical and empirical researches of different kinds. However, return on assets (ROA) and return on equity (ROE) have always been mentioned among the main indicators characterizing organisation's profitability.

Return on Assets (ROA) is the ratio of net income to total assets (Khrawish, 2011). It measures the ability of the MFI's management to generate income by utilizing MFIs' asset at their disposal. In other words, it shows how efficiently the resources of the MFIs are used to generate the income.

Return on Equity (ROE) is a financial ratio that refers to how much profit a company earned compared to the total amount of equity invested or found on the balance sheet. Thus, the higher the ROE the better the MFIs is in terms of profit generation.

III. RESEARCH METHOD AND METHODOLOGY

3.1 Scope and Area of Study

The data set contains general information on liquidity data, profitability data from 70 MFIs affiliated to MC². We are going to use a cross sectional data collected from audited MFIs end of year financial statements for the year 2019. Let us mention that the sample was drawn from the population of Cameroon MFIs which is about 488 microfinances from which we limited ourselves to those affiliated to MC² which we had access to information of 70 MFIs affiliated to MC². Data were collected from secondary sources (balance sheet, trial balance, income and expenses statement, prudential ratios status document as prepared and validated by the Board of Directors of MC². The choice of Mutuelle Communautaires de Croissance (or MC²) was motivated by the fact that MFIs affiliated to this network are mostly found in rural areas than urban areas, where many individuals have fled to other part of the region due to the ongoing Anglophone crisis that is really intense in rural areas of the crisis zones and given the fact that most of the poor population are found in the rural areas, we will be able to get a better picture when analyzing the liquidity management and profitability of MFIs.

3.2 An Insight of MC2 Network

Launched in 1992, the activity of the "MC²" aims at endowing the village communities with rural development micro banks created and managed by their members, in the respect of the socio-cultural values. The "MC²" propose to the populations adapted solutions in order to overcome their problems of access to the financial services and permit them to improve their living conditions in a sustainable manner. It is a question of an endogenous approach of development which permits the underprivileged

populations to create wealth. As any microfinance institution, the "MC²" have a two-fold objective. An economic objective which concerns their financial viability and a social objective which is that of reaching the poorest levels of the populations by financing small and micro activities.

The "MC²" are institutions of first category[1] sponsored by Afriland First Bank which plays at the same time the role of a commercial bank and provides the technical assistance in partnership with the NGO "ADAF" (Appropriate Development for Africa Foundation).

On the 31st December 2007, there were 66 operational "MC²". On this same date, the network deals directly with 82 280 individuals, 9 844 groups and associations and indirectly with about 574 480 persons. The total amount of deposits is 11, 87 billions of CFA Francs, the capital raised in the "MC²" amounts to 2, 36 billions of CFA Francs. A total amount of 25, 43 billions of CFA Francs has been granted in a form of loans since 1992 (ADAF, 2008). The flexibility of the "MC²" as well as its adaptability to each socio-cultural context permits its fast introduction in the different milieu which experience poverty problems and which the populations have chosen to become members in order to emerge from poverty.

3.3 Methods of Data Analysis

The methodology we are going to adopt in this paper will be based on the estimation of panel data for the retained model. As compared to a transversal study, this estimation by panel permits to better analyse the heterogeneity among enterprises. The estimation by panel data reduces the error margin of estimation and multicolinearity, and also permits for a better description of the complexity of the behaviour of each of the studied MFIs. It takes into consideration, at least two dimensions: in space and in time. The regression model used is in function of panel characteristics. According to Saunder et al (2007), every statistics to describe a data usually summarizes the information in the data by disclosing the average indicators of the variables used in the study. Data collected from secondary source was compiled, sorted, edited, classified, coded and analysed using a computerised data analysis package known as SPSS 11.0.

3.4 Specification of the Model

The study employs the multiple regression models shown below. The indicators of profitability are used to develop different functions relating to liquidity management as shown below:

$$\text{Profitability of MFIs} = f(\text{Liquidity Management}) \quad (1)$$

Following from equation (1) above, the profitability of MFIs (π) is measured using Return on Assets (ROA). Liquidity Management (LM) is broken down in to Cash Ratio (CR), Current Ratio (CCR) and Liquidity Ratio (LR) as seen in the equations below:

$$\pi = f(CR, CCR, LR) \quad (2)$$

The Lending Interest Rate (LIR), Size of Microfinance Institutions (SMFI) and Rural Residence (RR) are the control variables used. Considering the importance of the intercept, coefficients to be estimated and error term, the econometrics equation for the model becomes:

$$\pi = \beta_o + \beta_1 CR_i + \beta_2 CCR_i + \beta_3 LR_i + \beta_4 LIR_i + \beta_5 SMFI_i + \beta_6 RR_i + \varepsilon$$

Where

π is the profitability of MFIs, measured using Return on Assets (ROA)

CR = Cash Ratio

CCR = Current Ratio

[1] The regulation n°01/02/CEMAC/UMAC/COBAC relative to the exercise of the microfinance activities in Central Africa states in its section 7 that the IMF of the first category treat only with their members.

LR = Liquidity Ratio
LIR = Lending Interest Ratio
SMFI = Size of the MFI
RR = Rural Residence
β_1, β_2, β_3, β_4, β_4, β_5, β_6, are the coefficients to be estimated
ε_i = the Error term

IV. DATA ANALYSIS AND DISCUSSION OF FINDING

4.1 Descriptive Statistics

Table 4.1: Below gives a summary of descriptive characteristics of variables included in the model of MFI's captured by the number of active members. Found in the table are the number of observations, the mean, standard deviation, minimum value and maximum value of all the variables included in the model.

Table 4.1: Summary of Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	70	0.0671737	0.0389883	0.005365	0.1489635
Liquidity ratio	70	3.658042	8.760165	-7.4275	49.0548
Current ratio	70	0.06401	0.4645678	-3.2342	1.4073
Cash ratio	70	0.0465113	0.313510	-1.0505	0.3993
Size of MFI (Ln total assets)	70	19.53128	1.868639	15.57032	23.66528
Rural residence	70	0.7957143	0.4532886	0	1
Lending interest rate	70	0.1848637	0.3907462	0.033409	0.259745

Source: Computed by the author

Results from table 4.1 indicate that on average, sampled MFIs affiliated to MC^2 in the crisis zone in Cameroon had an average return on assets rate of 6.71% (0.0671737) with a standard deviation of 0.0389883 implying that there is low variability of return on assets (proxy for financial performance) across MFIs sampled with the smallest credit union having only 0.005365 (0.53%) return on assets while the most performant had 0.1489635 (14.89%). This result simply illustrates the fact that there is a moderate disparity of credit unions in the sample in terms of profitability. In addition, the average value of liquidity ratio in the sample is 3.658042 with a standard deviation 8.760165 which is greater than the mean revealing that there is a very high dispersion of liquidity ratio in the sample. Values of liquidity ratio in the sample fluctuate between -7.4275 and 49.0548.

In terms of current ratio, results from descriptive analysis show that the average current ratio in the sample is 0.06401 and a standard deviation of 0.4645678 indicating a moderate variability around the mean value with values ranging from -3.2342 indicating very poor coverage of current assets by current liability to 1.4073. The average cash ratio in the sample is 0.0465113 with a standard deviation of 0.3135103 indicating wide dispersion of values around the mean value. Values of cash ratio range from -1.0505 to 0.3993.

The mean value of size of the MFIs measured by total assets is 19.53128 and its standard deviation is 1.868639. These results show that there is great disparity in terms of size of MFIs ranging from a minimum value of 15.57032 to a maximum value of 23.66528. Also, 79.57% of the sample was made up of MFIs which are based in rural areas of the Region given that the mean value of rural residence is 0.7957143 as against 20.43% of the MFIs in urban zone of residence. On average the lending interest rate in the sample is 18.48% (0.1848637) which reveals that the interest rate of MFIs in crisis zone is moderate with values ranging from 0.033409 (3.34%) to 0.259945 (25.99%) per annum.

4.2 Correlation Analysis

Table 4.2: displays the results of the pairwise correlation between the variables used in the regression analysis. This is a prelude to the regression analysis in order to be sure that there is no strong correlation among the independent variables which is a presumption to the problem of multicollinearity.

Table 4.2: Pairwise Correlation Matrix of Variables

	Roa	Liq	cur	car	Size	rural	lir
Roa	1.0000						
Liq	-0.1543	1.0000					
	(0.2020)						
Cur	0.1728	0.0389	1.0000				
	(0.1526)	(0.7492)					
Car	0.3048	0.0448	0.8499	1.0000			
	(0.0103)	(0.7126)	(0.0000)				
Size	0.5757	-0.0470	0.0546	0.1851	1.0000		
	(0.0000)	(0.6994)	(0.6534)	(0.1251)			
Rural	-0.1572	0.1112	-0.0898	-0.1269	-0.3427	1.0000	
	(0.1937)	(0.3592)	(0.4598)	(0.2953)	(0.0037)		
Lir	-0.1060	-0.0493	-0.3410	-0.5670	-0.1728	0.0693	1.0000
	(0.3822)	(0.6854)	(0.0039)	(0.0000)	(0.1526)	(0.5688)	

Note: P-values in parentheses
Source: Computed by the author

From the table above, it can be observed that there is no serious correlation between the variables. A low or very low positive and negative correlation was noted between all the variables included in the model. However, very strong positive correlation was observed between the cash ratio and current ratio as the correlation coefficient stands at 0.8499. In order to ascertain that multicollinearity is not a major concerned in the model, a formal test of multicollinearity known as the Variance Inflation Factors (VIF) test is further conducted and results are displayed in table 4.3 below.

Table 4.3: Variance Inflation Factors (VIF)

Variable	VIF	1/VIF
Cash ratio	5.36	0.186567
Current ratio	4.42	0.226244
Lending interest rate	1.91	0.523560
Size of MFI	1.03	0.970873
Rural residence	1.11	0.900901
Liquidity ratio	1.01	0.990099
Mean VIF	2.47	

Source: computed by the author

Result from the VIF test reveal that multicollinearity is not a major concern in the model since the mean VIF (2.47) is lower than the critical value of 2.5 and the values of individual do not exceed 10. Consequently, we can confidently assert that the model does not suffer from any major problem of multicollinearity.

4.4 Regression results

In order to investigate the effect of liquidity management on the profitability of MFIs in the crisis zones of Cameroon, we use the Ordinary Least Square estimation technique given the continuous nature of the dependent variables. Results of the Ordinary Least Squares (OLS) are presented in table 4. It should be noted that column one is the OLS results without accounting for possible threshold effect of the size of the MFI while in column 2 we account for the possible quadratic effect of MFI size by including the squared value of MFI size. As results reveal, including the squared value of size of MFI improved the goodness of fit of the model as the R square moves from 0.422 (42.2% of the variation in the dependent variable being explained by joint variation of all the regressors) to 0.502 (50.2%). Furthermore, including the squared value of size of MFI also improved the significance of the variables. Thus, results from column 2 are considered for interpretation.

Table 4.4: The Effect of Liquidity management on MFI Profitability

	(1)	(2)
VARIABLES	ROA	ROA
Liquidity ratio	-0.000455	-0.000585**
	(0.000309)	(0.000292)
Current ratio	-0.0139	-0.00823
	(0.0129)	(0.0122)
Cash ratio	0.0666**	0.0626**
	(0.0294)	(0.0276)
Size of MFI	0.00865***	0.0905***
	(0.00167)	(0.0261)
Size squared		-0.00215***
		(0.000684)
Rural residence	0.00529	-0.00160
	(0.00696)	(0.00688)
Lending interest rate	0.0141	0.0178**
	(0.00904)	(0.00855)
Constant	-0.115***	-0.882***

	(0.0345)	(0.246)
Observations	70	70
R-squared	0.422	0.502
Prob > F	0.0000	0.0000

*Note: *, ** and *** refers to significant at 10%, 5% and 1%*

Source: Computed by the author

Results from table 4.4 shows that the coefficient of liquidity ratio is negative (-0.000585) which implies that there is a negative effect of liquidity ratio on the profitability of MFIs. Said otherwise, liquidity ratio and return on assets evolve in opposite direction. Specifically, a unit point increase in liquidity ratio will lead to about 0.0006 percentage point fall in return on assets of MFIs. This result is statistically significant at 5% level. Thus, there is a negative and significant effect of liquidity ratio on the profitability of MFIs in the crisis zones of Cameroon.

Further results indicate that current ratio also negatively relates with profitability of MFIs given that the coefficient of current ratio is negative (-0.00823). In effect, a unit point increase in current ratio will bring about 0.008 percentage point fall in MFI return on assets. However, this result was found to be statistically insignificant given that the p-value exceeds 0.1 (10%). In a nutshell, there is a negative but insignificant effect of current ratio on the profitability of MFIs, as findings indicate.

Results arising from table 4.4 reveal that, unlike the previous two results, there is a positive effect of cash ratio on the profitability of MFIs, given that the coefficient of cash ratio was found to be positive (0.0626). Precisely, an increase in cash ratio by one point will lead to an increase in return on asset ratio by 0.06 percentage point everything else held constant. This result is significant at 5% level. Therefore, it can be said that cash ratio significantly enhances MFI profitability.

Going by the control variables, results from the OLS estimation show that the coefficient of MFI size is positive (0.0905) which implies that there is a positive effect of size of the MFI on profitability. In other words, an increase in size of the MFI will bring about an increase in profitability ceteris paribus. Specifically, a unit percentage increase in total assets of MFI will result in about 0.09 percentage point increase in return on assets. This result is significant at 1% level. Furthermore, the coefficient of size squared was found to be negative (-0.00215) and statistically significant at 1% level as well. This outcome shows that there is a quadratic effect of MFI size on MFI profitability. Said otherwise, the size of the MFI positively affect profitability as it increases up to a maximum turning point where the size of the MFI begins to have a negative effect on MFI profitability. Thus, there is an inverted U shape relationship between size of MFI and MFIs profitability.

In addition, the coefficient of rural zone of residence was found to be negative (-0.00160) which implies that rural residence negatively affects MFI financial profitability. In effect, belonging to the rural area reduces profitability by 0.002 points everything else held constant. However, it should be noted that this finding is not significant. Thus, there is a negative but insignificant effect of zone of residence on the profitability of MFIs.

The coefficient of lending interest rate is positive (0.0178) as shown by table 4.4 above. This result indicates that lending interest rate relates positively with return on assets as a proxy for profitability of MFIs. Specifically, a unit increase in lending interest rate will lead to about 0.02 point increase in return on assets. Moreover, it should be noted that this result is significant at 5% level. Thus, there is a positive and significant effect of lending interest rate on the profitability of MFIs.

Overall, the applied model was globally significant at 1% level as the probability value of the Fischer statistics (0.0000) is far below 0.01 (1%). Thus, liquidity management captured by liquidity ratio,

current ratio and cash ratio alongside size of the MFI, Zone of residence and lending interest rate significantly explained MFIs profitability in the North West and South West Regions of Cameroon. Given an R-square coefficient of 0.502, it can be seen that 50.2% of changes in profitability is explained by a simultaneous variations of all the independent variables included in the model. Also, the Breusch Pagan test reveal that the model was homoscedastic as the p-value of the test (0.7898) far exceeds 10% which permits us to accept the null hypothesis of constant variance of residuals.

4.4 Discussion of Findings

The first objective of this paper was to examine the effect of liquidity ratio on the profitability of MFIs. Results from data analysis indicate that there is a negative significant effect of liquidity ratio on MFIs profitability in the study area. Based on this result we reject the first hypothesis of the study which postulates that there is no significant effect of liquidity ratio on MFIs profitability. It should however be noted that this results is contrary to a priori expectation. However, this outcome can be backed by the Baumol (1952) theory of cash management. According to Baumol (1952), cash management enables companies to find the optimum level of cash to hold under conditions of certainty. A negative significant effect of liquidity ratio on profitability may be a sign of credit rationing in MFIs which may be manifested though low level of loan distributed and over liquidity of MFIs. As such, failure to reach appropriate level of liquidity may later on translate into very low level of income from loan and poor level of profitability. These results also corroborates the finding of Bordeleau et al. (2009) who found that there is a non-linear-relationship between liquidity and financial performance of banks in the United State, whereby profitability is improved for institutions that hold some liquid assets. However, there is a point beyond which holding further liquid assets diminishes institutions' profitability, all else equal. Therefore, a negative and significant effect of liquidity ratio may simply indicate that MFIs of the crisis zones of Cameroon have reached the diminishing return phase of the nonlinear relationship between liquidity and profitability as shown by Bordeleau et al. (2009). This finding is also in line with the result of Maaka (2013) who found a negative significant effect of liquidity on MFIs profitability in Kenya. If liquid assets are held excessively, profitability could diminish because they have no or little interest-generating capacity. The opportunity cost of holding low return assets would eventually outweigh the benefit of any increase in the institution's liquidity resilience as perceived by markets (Mashhad, 2012).

The second objective of this study was to examine the effect of current ratio on the profitability of microfinance institutions. In line with this objective, results show that there is a negative but insignificant effect of current ratio on the profitability of MFIs. Thus, we fail to reject the second hypothesis of the study which states that there is no significant effect of current ratio on the profitability of MFIs. This result is contrary to a priori expectation and corroborates the finding of Kamoyo (2006) who found a negative but insignificant effect of liquidity management on profitability of MFIs in Kenya.

The third objective of the present study was to assess the extent to which cash ratio affect the profitability of MFIs. As expected, results from the OLS estimation reveal that cash ratio significantly enhances the profitability of MFIs. Thus, we reject the third hypothesis of the study which claims that cash ratio has no significant effect on the profitability of MFIs. This result is in conformity with a priori expectation and also conforms to the finding of Ongore and Kusa (2013) who found that cash ratio exerts a positive and significant effect on the profitability of commercial banks in Kenya.

Going by the control variables, results from data analysis indicate that there is a significant inverted U shape relationship between size of the MFI and the profitability. This result suggests that, as the MFI size increases, it enjoys some economies of scale in the distribution of financial services. It reaches an optimal critical (maximum point in this case) point after which further increase in size (measured by

total assets) will rather lead to diseconomies of scale in the distribution of financial services to the public. This result is in line with the too big to manage hypothesis which shows that as the microfinance becomes too big, the management may lack necessary expertise to efficiently manage the institution. This outcome is in line with the findings of Kaplan (2011) who found a nonlinear inverted U shape relationship between size of MFI and profitability of MFIs in WAEMU. This result also partially confirms the finding of Akume and Badjo (2017) who found a negative effect of size on efficiency of MFIs in Cameroon.

V. CONCLUSION, RECOMMENDATION AND POLICY IMPLICATION

5.1 Conclusion

Microfinance was developed as an alternative to traditional banking system for those who are excluded from the later. The main objective of this paper was to examine the effect of liquidity management on the profitability of MFIs in the crisis zones of Cameroon. In order to achieve this objective, data was collected from 70 microfinance operating in the crisis zone for the year 2019. The data was later analysed using the Ordinary Least Squares. Results from data analysis revealed that there is a negative effect of liquidity ratio and current ratio on MFIs profitability while cash ratio was found to exert a positive effect on profitability. However, only liquidity ratio and cash ratio were found to be statistically significant. Going by the control variables, results from data analysis indicates that there is a significant inverted U shape effect of size of the MFI on profitability. In addition, lending interest rate was found to enhance profitability significantly whereas there is a negative but insignificant effect of rural zone of residence on the profitability of MFIs.

5.2 Conclusion, Recommendations and Policy Implication

5.2.1 Conclusion

The main objective of this paper was to find out if liquidity management affects the profitability of MFIs affiliated to MC² operating in the crisis zones of Cameroon. Profitability was measured using return on asset, while Liquidity management was measured using cash ratio, current ratio and liquidity ratio. Data was collected from 70 MFIs affiliated to MC² which are operating in the crisis zone and a methodology based on the estimation of panel data for the retained model and SPSS 11.0 was used to analyze data. Conclusively, it is seen that there is negative effect of liquidity ratio and current ratio on MFIs profitability while cash ratio was found to exert a positive effect on profitability. So it can be concluded that as liquidity increases, profitability decreases due to less loans granted. Again, the findings shows that more cash is been held idle by microfinance institutions. It is suggested that, more loans should be giving out to customers which will intern reduces liquidity there by increasing profitability in microfinance institutions.

5.2.2 Recommendations and Policy Implication

Based on the findings above, it is recommended that there is a need to invest the excess of liquidity (cash) available at the MFIs, in various aspects of investments in order to increase the MFIs' profitability and to get benefits from the time value of the available money.

Also the MFIs should adopt a general framework for liquidity management to assure a sufficient liquidity for executing their works efficiently. There is need for MFIs to engage competent and quality personnel. The right personnel will ensure that the right decisions are made especially with the optimal level of cash and treasury bills and certificates to keep. The MFIs need to be more aggressive in the area of profit enhancement.

The study also strongly recommends that MFIs in crisis zones of Cameroon should develop effective and efficient strategies with good policies that will improve the quality of their loans liquidity management in order to improve their profitability. The Management of MFIs should improve on the capacity building of their workers through constant training, workshops and seminars that will equip them with best practices on liquidity management which will enhance profitability. Quarterly evaluation management meetings should be held to assess and evaluate their performance.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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