

Credit Risk Management and the Performance of SMEs in Ondo State, Nigeria

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Abstract

Microcredit Agencies and Microfinance Institutions have braced-up as key sources of finance with less stringent conditions for Small and Medium Enterprises (SMEs) in most nations. However, supports from most microcredit programmes have not translated into improved performances for the Small and Medium Enterprises as there still exist high rate of business failure, high non-performing loans and minimal investment activities. Therefore, issue of robust credit risk management(CRM) to enhance both microcredits and SMEs performance remain issue of concern. This study therefore examined the effects of credit risk management on SMEs performance in Ondo State. Survey research design was employed with a sample size of 261 Ondo State Microcredit Agency (OSMA) loan beneficiaries randomly selected for the study.Descriptive analysis was conducted and Partial Least Square- Structural Equation Modeling(PLS-SEM) was employed to test the hypothesis. The models specified by the study are statistically significant at 5% levels of significance. The study showed that the exogenous construct, CRM has both a positive and significant effect on the latent endogenous construct, performance of SMEs ($\beta= 0.522$, $R^2 = 0.383$, $f^2 = 0.407$, $T= 8.763$ and $P< 0.05$). The result also showed that only four out of the six sub-constructs were significant. The “credit terms”, “loan appraisal” and “loan recovery” were significant at 95% ($P< 0.05$) including the control variable “loan applied for” while ‘loan repayment’ was significant at 90%. The study concludes that credit terms, loan appraisal, loan recovery and ‘loan applied for’ as indicators of CRM have both positive and significant effect on SMEs performance at the period of this study. The study recommends that with good credit terms, a robust loan appraisal system, OSMA can significantly reduce loan default and help improve SMEs profitability.

Keywords: Microcredit, Loan, Credit Risk Management, Small and Medium Enterprises, Performance

Date of Submission: 05-06-2021

Date of Acceptance: 18-06-2021

I. Introduction

The economic performances of many nations is traceable to the efficiency and performance of Small and Medium Enterprises (SMEs) present in them. All over the world, SMEs has sustained many economies by facilitating growth and development through employment and income generation,wealthcreation and improvement of standard of living of the citizens.(Shafi, Liu and Ren, 2020; Vivel-Bua, Lado-Sestayo and Otero-Gonzalez, 2019; Akingunola, Olowofela & Yunusa, 2018). These benefits have subsequently turned Policymakers attention to SMEs as they are becoming increasingly important.In South Africa, a strategic approach to SME development was created with the sole aim of promoting and developing SMEs by facilitating access to information, finance and affordable physical infrastructure (Oyelana & Adu, 2015). According to Angaine and Waari (2014), a similar effort by Kenya Government to develop and promote the enterprises culture among the citizens is hinged on growing the microfinance institutions (MFIs), this has led to growth both in SMEs and MFIs. In Nigeria, an attempt to enhance the development of SMEs led to launching of the

micro-credit scheme in 2001 and the micro finance policy of 2005 with the aim to develop the SMEs sector by providing access to cheap and long term credit (CBN, 2011).

In 2001, the micro-credit scheme was launched by the Federal Government of Nigeria with the aim to develop the SMEs sector by providing access to affordable and long term credit. The guidelines provided for microfinance institutions establishment to meet both financial and non-financial needs of SMES (CBN, 2011). This Federal Government initiative was replicated in Ondo States (Ondo State Micro-credit Agency, 2019). All these efforts confirm that effective delivery of micro credit to SMEs' is increasingly being recognised as a strategic means of alleviating poverty towards achieving sustainable socio-economic growth (Waithaka, Marangu & N'gandu, 2014). However, the sustainability and viability of micro credit programs is important to governments, the operators and donors as to ensure that micro-credit agency can continually provide financing to SME's in a sustainable manner. The financial sustainability of the programmes is key to making micro-finance services permanent and readily available. For Microfinance and microcredit institutions to continue to provide financial services to the low level earners sustainably, the financing institutions themselves must be healthy and be a going concern.

SMEs face a lot of challenges in accessing credits as compared to corporate entities as bank can easily assess the credit ratings of large enterprises and the bankability of their ventures (Stevenson, Mues and Bravo, 2021). However, in the case of SMEs, credit rating is a bigger challenge as there is rarely comprehensive rating systems and as such verification of data presented by SMEs operators is still a major challenge to lenders (Yoshino & Taghizadeh-Hesary, 2014). In furtherance to this, Mutezo (2013) noted that problem of information asymmetry has led to misjudgement of most SMEs venture capacity to access and effectively utilise finance by lending institutions. This is further aggravated by the inability of SMEs to provide lenders with reliable information in respect of their operations, potential risks and returns which are key to adequate evaluation of their creditworthiness (Mutezo, 2013). From the financial institutions point of view, obstacles to lending to SMEs include; non-availability of collateral securities (Adegbite & Olaoye, 2009; Chikomba, 2013; Namutenda & Muturi, 2017), lack of business and management experience (Nawai, 2010), high cost of monitoring, lack of sound business plan, credit history lack of genuine business records and high risk of business failures (Mutezo, 2013).

According to Mutezo (2013) and Schoombee (2000) many challenges have been identified as a cog in the wheel of progress of SMEs growth but access to bank credit is prominent. Most Governments of developing countries have turned to setting up micro-credit programs to support Micro, Small and Medium Enterprises (MSMEs) access to finance at a friendlier terms and conditions better than that obtainable from the conventional banking systems. However, the support from such programs has not translated into improved performance for the MSMEs as there still exist high failure rate, high non-performing loans and minimal investment activities (Auma, 2017). Therefore, this paper seeks to assess the effect of credit risk management strategies of Ondo State Micro-credit Agency (OSMA) on SMEs in Ondo state. The scope of this study is limited to OSMA and their credit risk management activities on their SMEs loan beneficiaries, in order to gain insight into the efficiency and effectiveness of OSMA CRM activities, and recommend strategies to better the performances of SMEs in the state.

II. Literature Review

Over the last few decades, agency theory has emerged as the dominant paradigm in the financial economics literature (Jensen & Meckling, 1976; Ross, 1973). There exists a principal –agent relationship between Ondo State Microcredit Agency (OSMA) and the SMEs operators as OSMA provides credit for the entrepreneurs for them to generate sufficient income from their ventures and repay loan in orderly and consistent manner. The agency at the time of appraising and approving the loan may lack cogent information that may help them to expediently evaluate the creditworthiness of the borrower and the bankability of the project due to information asymmetric. The entrepreneur may also intentionally hide relevant information about the venture thereby creating moral hazard problem. Therefore, OSMA must provide appropriate incentives and monitoring mechanism to ensure it interest of loan repayment and collection aligns with the borrower. According to Albasu and Nyameh (2017), Stakeholder's theory deals with the creation of value for all the stakeholder in a business sustainably over a period of time. The right of the stakeholders to value is established through interactions and this creates information asymmetry between managers and stakeholders. The existence of information asymmetric between OSMA and SMEs' operators is often responsible for booking of bad loans and ultimately leading to rise in non-performing loans. Additional cost of gathering and analysing information, and monitoring activities of SMEs loan beneficiaries to ensure their activities do not deviate from plan is necessary to ensure health stakeholders relationship.

In this context Neuberger and R athke (2009) stated that micro-enterprises are especially predisposed to adverse selection and moral hazard which limit their access to finance. SMEs are usually characterised with challenges of credit risk and information asymmetry. Kumar (2017) also described microcredit as small credit

facility provided to the needy people whose earning capacity is very little, lacking collateral and with or without credit history. Otero and Rhyne (2007) described microfinance as a revolution that involves the largescale provision of deposit and small loans services to citizen with low income who may not have access to the traditional banking services. It includes services such as credit, savings(deposits), insurance, money transfers and other financial products targeted to the poor and entrepreneurs (Ojo, 2009). Nordmeyer (2019) noted that Microcredit offered by conventional or specialized banks and credit unions is an alternative to other informal sources of credit such as loans from moneylenders, relatives and other member of the community.

A study done on SMEs in Ogun State revealed that SME operators expressed ignorance on the understanding of risk, and not more than 10% could define risk (Gwangwava *et al.*, 2014). The understanding of what risk represents differs from organizations and also at different levels of management. Risk management process needs to develop a common risk vocabulary so that the understanding of risks is not just with the top echelon of the organisation (Muralidhar, 2010). There has to be guidance on risk management processes which include risk assessment so that SMEs can improve their efficiency (O'hara *et al.*, 2005). Level of staff knowledge on risk influences efficiency and ability in risk identification process (Bruns & Fletcher 2008; Ellegaard, 2008). Moreover, lack of human and financial capacity by SMEs may also impact on effective risks management. There is however limited literature on how SMEs must identify risks, apart from using the financial indicators which indicate the loss. Sakwa, Rambo and Osogo, (2019) studied the effect of collateral on SMEs performance in Turbo sub county, Kenya. The study employed a sample of 340 from a total population of two thousand nine hundred and one entrepreneurs. The results of the regression analysis revealed that collateral security has both positive and significant influence on SMEs performance via access to credit. It further showed that firms who have collateral to pledge can easily access loan as against firms.

In a study by Acar and Gök (2011), stated that owner-managers are less risk averse, therefore, do not focus on business strategies with more probability of risks. In consonance with this, Gilmore *et al.* (2004) noted other factors such as age, gender and culture mediated risk appetite and tolerance. He further noted that younger managers could be more informed about risk measure measurements and make inform decision. Level of staff knowledge on risk influences efficiency and ability in risk identification process (Bruns & Fletcher 2008; Ellegaard, 2008). Ssekiziyivu Bananuka, Nabeta and Tumwebaze(2018) investigated the contribution of borrowers' characteristics in addition to credit terms on loan performance of MFIs in rural Uganda through cross sectional and correlational study design and use of a questionnaire survey of 51 Microfinance Institutions in Uganda. Results indicated that credit terms have a significant relationship with loan repayment performance among customers of MFIs while 'borrowers' characteristics' does not. The regression analysis predicted 16% of the variation in loan repayment performance. The study found that credit terms significantly contributed to loan repayment performance of MFIs in Uganda and borrowers' characteristics is not. Findings revealed that that credit terms are more critical to loan repayment than borrowers' characteristics, and could help in ameliorating the problems of non-performing loans and default including non-sustainability of microcredit programmes.

III. Methodology

The study adopted Survey Research Design as primary data were employed for the study. This study identified and presented the credit risk management operations of Ondo State Microcredit Agency (OSMA) and its effect on the SMEs performance. The choice of Ondo State is predicated on the fact that a large numbers of SMEs that has sprung up in the state in the last five years. More so, the presence of large population of poor and rural citizens without access to traditional banking services and financial interventions to grow SMEs justify the choice of the state. The population of the study consisted of all SMEs loan beneficiaries in various categories. Using Yamane sample size formula, 261 beneficiaries were selected from a total population of 745 beneficiaries comprising SMEs in Manufacturing, Craft, Agro-Allied, Farming, services and, food and water processing. The research instrument adopted for collecting data from the respondents was a pre-tested and validated questionnaire. Questions were on a 5-point Likert scale, and multiple-choice type questions.

Quality assessment of measurement models were conducted as internal consistency of the models were done using Cronbach's Alpha (CA), and Composite Reliability (CR). Convergent validity was conducted by considering the Average Variance Extracted (AVE) and outer loadings of the indicators while Discriminant validity was assessed based on outer loading, Cornell-Lacker Criterion and assessment of Heterotrait-Monotrait (HTMT) ratio. The data used in the model all passed the quality assessment and indicators that failed the test were deleted from the model. Subsequently, the study proceeded to assess the structural model. The responses from the respondents were analysed using descriptive analysis while Partial Least Square- Structural Equation Modeling (PLS-SEM) was deployed to test the hypothesis.

Thus the functional representation was typically model as follow;

$Y = f(X)$, Y= SME Performance, (Perf.) X = Credit Risk Management Activity by OSMA (CRM).

The model for this study comprises of the credit risk management which consists of loan appraisal; loan approval; loan disbursement; loan repayment; loan recovery and credit. With loan applied for and highest level of education as control variable.

x_1 = loan appraisal; x_2 = loan approval; x_3 = loan disbursement; x_4 = loan recovery x_5 = loan repayment; x_6 = credit terms

$$X_{perform} = \beta_0 + \beta_1 CRM + \mu$$

$$X_{perform} = \beta_0 + \beta_1 CRM + \beta_2 LAF + \beta_3 HLEdm + \mu$$

Where; CRM=Credit Risk Management Activity; LAF = loan applied for; HLEdm= highest level of education

IV. Results and Discussion

Demographic Characteristics of Respondents

The study examined the distribution of respondents according to their age, gender and level of education. It was revealed that majority (80%) of the loan beneficiaries are above the age of 40 years, which implies that younger generations, who are always creative and innovative are very small, representing just 19.9 percent of the study population. It is not surprising that the loan beneficiaries were predominantly women with 55.8 percent whereas the male counterparts were about 11.6 percent less the population of the opposite gender. This was due to the predominant role played by cooperative societies and unions majorly owned by women who benefited from OSMA loan. The results obtained for level of education showed that majority of the loan beneficiaries about 90% percent representing 187 of them do not have first degree. This can inhibit their ability to absorb new knowledge couple with the fact that they are aged respondents. It was also revealed that majority of the loan beneficiaries are within the service sector (177) representing about 86 percent of the respondents. This was followed by agriculture and manufacturing segments of the economy with 17 (8.3 percent) and 12 (5.8 percent) respectively.

Table 1 provided information on the age of business owner experience and others. The mean age of establishment of businesses is 21.47 years with a standard deviation of 11.38. This implied that majority of the business's studies are not new to the economy with about twenty-eight (28) of them having been established since thirty (30) years ago. This is similar to the obtained results for the working experience of the loan beneficiaries. The mean age and standard deviation recorded are 23.20 and 11.06 respectively. However, in term of number of staff or employees, the loan beneficiaries despite recording great number of years of business establishment and experience, they have not grown beyond an average of three (3) employees in Ondo State. Also, Table 1 revealed the enormous difference between the mean of "amount of loan applied for" and "amount of loan disbursed" among the loan beneficiaries to a total sum of N1, 361,747.94.

Table 1: Age, Experience, Number of Staff and Loan Characteristics

| | Range | Minimum | Maximum | Mean | Std. Deviation |
|------------------------------------|------------|---------|------------|--------------|----------------|
| Age of business(years) | 53 | 3 | 56 | 21.47 | 11.376 |
| Working Experience(years) | 55 | 1 | 56 | 23.20 | 11.064 |
| Number of staff | 12 | 0 | 12 | 2.99 | 2.086 |
| secB1 (Amount of loan applied for) | 9,950,000 | 50,000 | 10,000,000 | 1,947,058.82 | 2,400,364.797 |
| SecB2 (Amount of loan disbursed) | 13,975,000 | 25,000 | 14,000,000 | 585,310.88 | 1,387,884.109 |

Field Survey (2021)

Descriptive analysis of the effect of credit risk management on SMEs performance

In examining the relationship between credit risk management and performance of SMEs, descriptive analysis of the responses from the respondents were presented in Table 2. From the data collected, a total of eighty (80) respondents representing 38.8% strongly agreed that the criteria for verifying and appraising loan request is well known to them, another seventy-one respondents representing 34.5% agreed with the notion, while twelve respondents representing 5.8% were undecided. However, forty-one (43) of the respondents had contrary views with forty-one (41) of them representing 19.9% disagreed that the criteria for verifying and appraising their loan request is well known to them.

On verification of address by the agency's staff during loan appraisal, one hundred and seventy-two (172) of the respondents representing 83.5% either strongly agreed or agreed that the staff of Ondo State

Microcredit Agency (OSMA) conducted address verification. No respondent strongly disagreed with this notion indicating that this activity was conducted by OSMA. Regarding whether document required before approval is difficult to obtain thereby leading to delaying in approval process, 63.6% of the respondents believed that documentation is difficult and often leads to delay. However, 30.6% of the respondents disagreed with this notion and another 2.9% strongly disagreed. This implies that the majority of the loan beneficiaries find it difficult to quickly meet the documentation requirements hence resulting in delay in loan approval.

A total of 79.6% (representing 41.3% strongly agreed and 38.3% agreed) respondents supported the notion that loan disbursement is done timely and accurately indicating that OSMA disbursed their approved loans timely and accurately. In contrast, 14.1% of the respondents disagreed and another 1% strongly disagreed that disbursement is done timely. In addition, 92.2% of the respondents were in support that interest rates and other fees taken on the loans were communicated to them and only 5.4% of the respondents were against this notion. This implies that OSMA communicates rates of their facilities to loan beneficiaries.

Table 2: Descriptive Analysis of Credit Risk Management

| Credit Risk Management Statement | Frequencies and Percentages (%) of Responses | | | | | | |
|--|--|--------------|----------------|-----------|--------------------|--------------|--------------------|
| | Strongly Disagree (%) | Disagree (%) | Undecided (%) | Agree (%) | Strongly Agree (%) | Mean | Standard Deviation |
| The criteria for verifying and appraising loan request are well known to me | 2 (1.0) | 41 (19.9) | 12 (5.8) | 71 (34.5) | 80 (38.8) | 3.900 | 1.152 |
| My address was verified by the agency's staff during my loan appraisal | 0 (0) | 21 (10.2) | 13 (6.3) | 73(35.4) | 99 (48.1) | 4.214 | 0.954 |
| Approval of loan is done timely and accurately | 1 (0.5) | 20 (9.7) | 13 (6.3) | 79 (38.3) | 93 (45.1) | 4.180 | 0.959 |
| Document required before the approval is difficult to obtain thus, delaying the approval process | 6 (2.9) | 63 (30.6) | 6 (2.9) | 68(33.0) | 63 (30.6) | 3.578 | 1.285 |
| Disbursement of loan is timely and accurate | 2 (1.0) | 29 (14.1) | 11 (5.3) | 79 (38.3) | 85 (41.3) | 4.049 | 1.058 |
| The interest rate and other fees on the loan was well communicated to me | 2 (1.0) | 9 (4.4) | 5 (2.4) | 94 (45.6) | 96 (46.6) | 4.325 | 0.806 |
| The tenor of the loan was adequate and well captured in the offer letter | 5 (2.4) | 19 (9.2) | 22 (10.7) | 104(50.5) | 56 (27.2) | 3.908 | 0.981 |
| Loan repayment schedule was given to me after loan disbursement | 2 (1.0) | 27 (13.1) | 19 (9.2) | 83 (40.3) | 75 (36.4) | 3.981 | 1.036 |
| The low interest rate of the loan encourages my loan repayment | 6 (2.9) | 6 (2.9) | 13 (6.3) | 98 (47.6) | 83 (40.3) | 4.194 | 0.901 |
| Method of collection of loan by the agency is simple and easy | 5 (2.4) | 7 (3.4) | 14 (6.8) | 97 (47.1) | 83 (40.3) | 4.194 | 0.890 |
| I pay my loan willingly without force or pressure | 0 (0) | 8 (3.9) | 15 (7.3) | 77 (37.4) | 106 (51.5) | 4.364 | 0.783 |
| Collateral is required for every loan request | 3 (1.5) | 17 (8.3) | 14 (6.8) | 96 (46.6) | 76 (36.9) | 4.092 | 0.945 |
| | | | Average | | | 3.990 | 1.065 |

Source: Field Survey (2021)

Furthermore, 77.7% of the respondents supported the notion that the tenor of the loans was adequate and well captured in the offer letter, 10.7% were undecided, and another 9.2% disagreed while only 2.4% strongly disagreed. Finally, on loan disbursement, 76.7% of respondents were in support that loan repayment schedules were given to them after loan disbursement while only 14.1% were out rightly not in support, indicating that OSMA adopted best practices in their loan disbursement operations. In accordance with the findings, 88.9% (representing 51.5% strongly agreed and 37.4% agreed) respondents indicated that they pay their loans willingly without force or pressure, 7.3% were undecided while only 3.9% disagreed and no respondent strongly disagreed. The willingness to repay loan as portrayed by these responses betrayed the high non-performing loans in the books of the Agency. Furthermore, 87.4% of the respondents (40.3% and 47.1% for strongly agreed and agreed respectively) supported that the loan collection method adopted by the Agency is simple and easy, 6.8% were undecided while 3.4% and 2.4% disagreed and strongly disagreed respectively. This indicated that the method of loan collection by OSMA is adequate. Lastly, 83.5% of the respondents concurred that collateral is required for every loan request, while about 10% did not agree with it (1.5% strongly disagreed and 8.3% disagreed). This implied that OSMA is aware of the importance of collateral as a motivation for loan repayment and also lends credence to the fact that most loan beneficiaries are aware of the importance of collateral to their loan request.

The results of the descriptive analysis showed that credit risk management (CRM) had an average mean of 3.990 and standard deviation of 1.065. The results indicated that the respondents agreed that CRM has an effect on SMEs performance and the standard deviation of 1.065 showed the convergence of the responses around the mean value. This, therefore, provided answers to the research question one and supported the researcher in achieving the first objective of the study.

Assessment of Structural Equation model of the effect of CRM on SMEs performance

The coefficients of structural models for the relationship between the constructs were derived from estimating a series of regression equations. Figure 1 depicts the path coefficient of CRM and performance of SMEs.

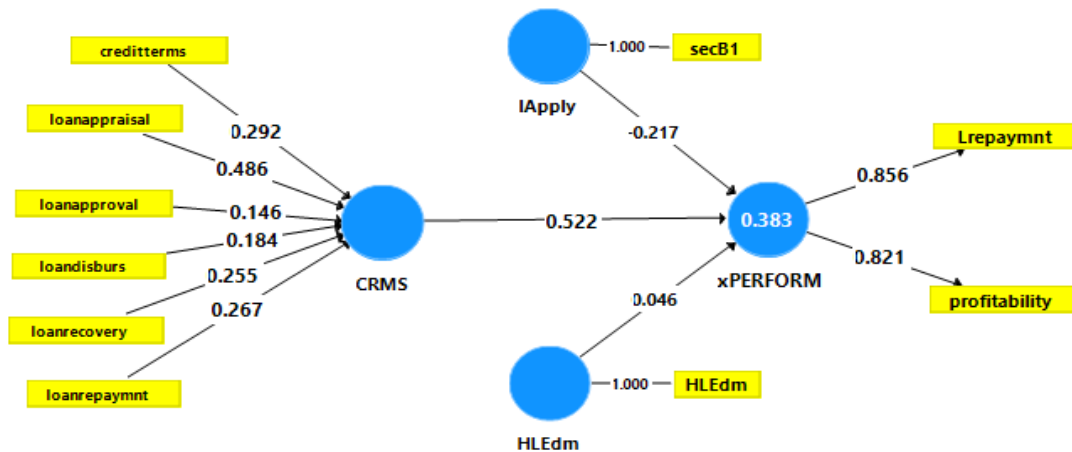


Figure 1: Path Coefficients of CRM and SMEs Performance

The significance of path coefficients for the disaggregated and aggregated CRM is shown in Tables 3. The study observed that all paths were significant at 95% level of significance except “loan repayment sub-construct” (loan repayment) that was significant at 90% level of significance. While other paths; “loan approval” and “loan disbursement” were not significant at all. Furthermore, the result showed that the aggregated CRM path and one of the control variables (“loan applied for”) are significant at 95% level of significance ($P < 0.05$). This shows the relevance and significance of the sub-construct of “credit terms”, “loan appraisal”, “loan recovery” and “loan apply for” to the performance of SMEs. However, the path of “highest level of education of business owner” is not significant at all. Tables 4.3 also show the magnitude of the path coefficient that provides us the relevance of the path. It is evident from the disaggregated CRM that “loan appraisal” has the largest path coefficient (0.282) followed by “credit terms” (0.167), “loan repayment” (0.159) and “loan recovery” (0.147).

Table 3: Relevance and Significance of Sub-constructs (Disaggregate) of CRMS Path Coefficients

| Path | Original Sample (O) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values | Bias | 2.50% | 97.50% |
|-----------------------------|---------------------|----------------------------|--------------------------|----------|--------|--------|--------|
| crediterms -> Xperform | 0.167 | 0.063 | 2.641 | 0.008 | 0.006 | 0.040 | 0.284 |
| loanappraisal -> Xperform | 0.282 | 0.066 | 4.288 | 0.000 | 0.004 | 0.146 | 0.407 |
| loanapproval -> Xperform | 0.086 | 0.077 | 1.116 | 0.265 | -0.006 | -0.058 | 0.244 |
| loandisburs -> Xperform | 0.105 | 0.099 | 1.060 | 0.289 | 0.012 | -0.086 | 0.298 |
| loanrecovery -> Xperform | 0.147 | 0.051 | 2.878 | 0.004 | 0.000 | 0.047 | 0.247 |
| loanrepaymnt -> Xperform | 0.159 | 0.084 | 1.880 | 0.060 | -0.003 | -0.004 | 0.330 |
| Aggregated | | | | | | | |
| CRM -> xPERFORM | 0.522 | 0.060 | 8.763 | 0.000 | 0.016 | 0.385 | 0.622 |
| HLEdm -> xPERFORM | 0.046 | 0.058 | 0.796 | 0.426 | -0.001 | -0.068 | 0.156 |
| loanApplied for -> xPERFORM | -0.217 | 0.073 | 2.983 | 0.003 | 0.007 | -0.370 | -0.085 |

Field Survey (2021)

The study examined the coefficient of determination (R-square value), which depicted the structural model’s predictive accuracy and is calculated as the squared correlation between a specific endogenous construct’s actual and predicted values (Hair *et al.*, 2017). The R-square provided the study the combined effects of independent variables on the dependent variable. That is, it represents the amount of variance in the endogenous constructs explained by all the exogenous constructs linked to it (Hair *et al.*, 2017).

The R-square value ranges (0 to 1) and value near to 1 indicates high predictive accuracy. However, in some fields such as in management R – square values of 0.26, 0.13, and 0.02 are considered as substantial, moderate, and weak, respectively (Cohen, 1992; Adepoju and Adebola, 2019). Therefore, the R-square value of the models as showed in Table 4 can be said to be substantial because it is more than 0.26, as suggested. Furthermore, the study observed the change in the value of R², when an exogenous construct is omitted from the model. This can be used to evaluate whether the omitted construct has a substantive impact on the endogenous constructs (Hair et al, 2019).

Table 4: R-Square and f-Square Values for CRM on SMEs Performance

| Path | Original Sample (O) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values | Bias | 2.50% | 97.50% |
|------------------------|---------------------|----------------------------|--------------------------|--------------|--------|-------|--------|
| (R²) | | | | | | | |
| xPERFORM | 0.383 | 0.067 | 5.71 | 0.000 | 0.026 | 0.235 | 0.491 |
| (f²) | | | | | | | |
| CRM -> xPERFORM | 0.407 | 0.147 | 2.764 | 0.006 | 0.131 | 0.317 | 0.401 |
| HLEdm -> xPERFORM | 0.003 | 0.012 | 0.284 | 0.777 | 0.044 | 0.156 | 0.073 |
| lApply -> xPERFORM | 0.072 | 0.057 | 1.265 | 0.206 | -0.282 | 0.460 | -0.460 |

Field Survey (2021)

For an assessment of f-square (f²) value of 0.02, 0.15 and 0.35 represent small, medium and large effect, respectively of the exogenous latent variable (Adepoju and Adebola, 2019). Table 4 also showed that CRM path has a large effect of 0.407 (>0.35), whereas, other variables have small effect sizes except for “loan approval”, loan disbursement and “highest educational level” with no effect (<0.02).

Testing of Hypothesis One

H₀₁: Credit risk management practises of Ondo State Microcredit Agency has no significant effect on performance of SMEs in the state

The hypothesis was tested by evaluating the effect of credit risk management practices on the performance SMEs in Ondo State. The PLS-SEM results showed the relevance and significant of the structural model relationship, the R-square and the effect sizes (f-square). The result showed that only four out of the six constructs were significant. The “credit terms”, “loan appraisal” and “loan recovery” were significant at 95% (P< 0.05) including the control variable “loan applied for” while ‘loan repayment” was significant at 90%. This indicated that credit terms, loan appraisal, loan recovery and loan applied for, had a positive and significant effect on the performance of SMEs and these variables can help OSMA in managing the credit risk associated with the loan availed to the SMEs operators. The R-square value of 38.3% for aggregated model is said to be substantial as it is more than 0.26 indicating that CRM has a predictive power on SMEs performance as 38.3% of the changes in SMEs performance can be explained by CRM practices of OSMA while the remaining 61.7% could be attributed to other factors not included in this model. The results also revealed that CRM path has a large effect size of 0.407 indicating that CRM has a large magnitude size in predicting the model. However, other constructs like “loan apply for”, “loan appraisal” and others with small or no effect could be statistically important as ones with large effect (Chien, et al., 2003).

The results as presented in Table 6 revealed that credit risk management practices of OSMA has a significant positive effect on performance of SMEs in the State with β= 0.522, R² = 0.383, f² = 0.407, T =8.763 and P< 0.05. The path coefficient indicated that for every positive unit increase in CRM strategies, SMEs performance will increase positively by 0.522. The R-square value of 0.383 indicated the construct has a good predictive power in respect of the outcome of the model as 38% variation in SMEs performance can be explained by CRM. It is therefore possible to increase the performance of SMEs loan beneficiaries in Ondo State up to 38% by putting in place appropriate credit risk management strategies. Since the t-value of CRM (8.763) was greater than 1.96 at 5% significant level and P< 0.05, with large effect size (f² =0.407), the null hypothesis (H₀₁) which states that credit risk management of Ondo State Microcredit agency has no significant effect on performance of SMEs is rejected. This result is in line with the outcome of the study by Adedeji et al. (2018); Kayode, Popoola, and Adeyinka (2020). They evaluated the effect of credit management on the performance of small-scale enterprises in Nigeria. The study showed that credit management affects the performance of small-scale enterprises. The study added that how effective the lending institution is in managing and appraising the credit given to small-scale businesses with determines the performance of such businesses.

Table 6: Testing of Hypothesis

| Alternate Hypothesis | Beta | Standard Deviation | R Square | F Square | T Statistic | P Value | Decision |
|----------------------|-------|--------------------|----------|----------|-------------|---------|----------|
| H ₁ | 0.522 | 0.060 | 0.383 | 0.407 | 8.763 | 0.000 | Accepted |

Source: Field Survey (2021)

V. Summary and Recommendations

This study measured microcredit agency operations using credit risk management on the performance of SMEs in Ondo State. The models specified by the study are statistically significant at 5% levels of significance. The result showed that only four out of the six constructs were significant. The “credit terms”, “loan appraisal” and “loan recovery” were significant at 95% ($P < 0.05$) including the control variable “loan applied for” while “loan repayment” was significant at 90%. This indicated that credit terms, loan appraisal, loan recovery and loan applied for, had a positive and significant effect on the SMEs performance. The study further revealed that the latent exogenous construct, credit risk management has a positive and significant effect on the latent endogenous construct, performance of SMEs ($\beta = 0.522$, $R^2 = 0.383$, $f^2 = 0.407$ and $P < 0.05$).

Findings of this study therefore provide insight into the effect of credit risk management on the performance of SMEs in the state. It provides an affirmation of the extent to which the variations in the endogenous constructs are caused by the exogenous constructs covered in the models as depicted by the R-squared, and their effects, relevancies and significances as depicted F-square and p-values. It can be concluded from the findings of the study that the credit risk management strategies of OSMA has a significant positive effect on SMEs performance and by effectively managing the sub-constructs such as credit terms, loan appraisal and loan recovery, OSMA can reduce the credit risk associated with the loan avail to the SMEs operators thereby improving loan repayment and also the profitability of the business ventures. From the findings the study, recommendations that by effectively putting in place a good credit terms, a robust loan appraisal system, an efficient loan recovery strategies and matching the “loan applied for” with the funding needs, OSMA will improve the profitability of loan beneficiaries and reduce loan default.

The study recommends that OSMA should put in place a good credit terms, a robust loan appraisal system, an efficient loan recovery strategy to reduce loan default to barest minimum. The study also recommends that OSMA should improve on the loan processing time as lengthy processing time can lead to a mismatch between when loan is required and when they are finally disbursed. This delay could lead loss of business opportunities for the loan beneficiaries and, make loan repayment and profitability goals difficult to achieve. Hence, prompt and timely loan processing and disbursement is advised.

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Mr. Imisi, Ilesanmi John, et. al. "Credit Risk Management and the Performance of SMEs in Ondo State, Nigeria". *IOSR Journal of Business and Management (IOSR-JBM)*, 23(06), 2021, pp. 01-09.