FINANCIAL ACCESSIBILITY AND GROWTH OF SMALL MEDIUM ENTERPRISES IN RWANDA: A SURVEY OF SELECTED SMES IN NYAGATARE DISTRICT

RWIHIMBA RUHUMURIZA JEAN CLAUDE

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Preface

The research project financial accessibility and growth of small and medium enterprises in Rwanda, a case of small and medium enterprises in Nyagatare District is conducted to achieve Masters in Business Administration in the option of Accounting and Finance. In conducting this research, researcher was inspired by different problems which continue to occur in the aspect of financial accessibility and growth of small and medium enterprises. These include lack of skills by business enterprises, poor managerial skills, lack of collateral requirement by small and medium enterprises. Financial institutions become reluctant in providing credit due to risks of SMEs and inability to pay back loan. The specific objectives undertook by researcher were to identify the collateral requirements of financial accessibility on the growth of small and medium enterprises in Nyagatare District, to determine the business support services that contribute on the growth of small and medium enterprises in Nyagatare District and to establish relationship between financial accessibility and growth of small and medium enterprises. This research project was more significant to the researcher, government, business owners and further researchers. Research used correlation research design and the target population was 753 from which a sample of 261 were selected. The technique was structured and unstructured and primary as well as secondary data were collected. In analyzing data, researcher used SPSS version 21. Linear regression was used to estimate the relationship using Ordinary Least Square techniques. The finding shows that Loan accessibility was very difficult for the applicants. There were several conditions that were placed on a loan applicant and high value collateral was just among the requirements. Majority of the recipients of the loans were those of less than 1 million and very few were able to more than 10 Million but with the support of business support services like financial literacy and grants/guarantees, investment advisory services, business management training and tax compliance loans and grants of up to and above 15 Million was accessible. The SMEs grew in their annual turnover, number of employees and assets after accessing finances. The extent to which financial accessibility contributes to the growth of small and medium enterprise has a coefficient of 0.350 with a square of 0.059. The relationship was positive implying improvement in financial accessibility also led to increase in the growth of SMEs sample. The relationship was significant at p = 0.005 with a mean square of regression at 0.028 implying no difference in the square. In conclusion, research findings showed that there is a positive relationship between financial accessibility and SME growth in such a way that. SME growth depend on access to loans and grants, business support services as well as the ability to provide collateral requirements therefore it is highly recommended that government of Rwanda need to empower SMEs through financial facilities and protection against market changes.
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5.1 SUMMARY OF FINDINGS

5.1.2 FINDINGS OF RESEARCH OBJECTIVES

5.1.2.1 To determine the collateral requirements of financial accessibility that contributes to the growth of small and medium enterprises in Nyagatare District.

5.1.2.2 To identify the extent to which business support services those contribute to the growth of small and medium enterprises in Nyagatare District.

5.1.2.3 To establish the relationship between financial accessibility and growth of small and medium enterprises in Nyagatare District.
CHAPTER ONE: INTRODUCTION

1.1 Background of the study
A small firm is one of the categories of small and medium enterprises. Globally SMEs are defined as non-subsidiary, independent firms which employ less than a given number of employees. In European Commission, the most frequent upper limit designating an SME is 250 employees while in United States SMEs have less than 500 employees (European Union, 2013). The most recent definition of small firms was given by European Union using three perspectives: employees, annual turnover and balance sheet. Small firms or small enterprises have between 10 and 49 employees, less than 10 million Euro of annual turnover and less than 10 million Euro of balance sheet (European Commission [EC], 2005).

In East Africa Community it has been reported that the small business firm play the significance role in the growth and development of the country more specifically in Kenya as these employ more than 5.1 million people equivalent to 74%. As indicated, SMEs also contribute 24.5% of the total GDP in Kenya and 75% of GDP in Uganda, 20% of the total labor force in Tanzania and 98% of the total private sector. In Burundi, SMEs have an important role in the informal economy (Reuben, 2013). In Rwanda, an SME is defined according to the World Bank report of 2004 basing on three aspects i.e. Net capital investment, annual turnover and number of employees. In Rwanda, a new report indicated that 64% of business owners are facing with problem due to limited source of finance. Business entrepreneurs in Rwanda have little skills in risks management, in information flow and business support services. A study done by Private Sector Federation revealed that small business firm fails to achieve growth due to shortage of loan or other form of assistance. In Nyagatare District, most of small and medium enterprises fail because shortage of financial supports services and non-financial means of support.

1.2 Statement of the problem
In Rwanda, a new report indicated that 64% of business owners are facing with problem due to limited source of finance. Hence, their growth is limited due to poor collateral requirements, high interest rate and insufficient of maturity in business operations (Reuben, 2013). Business entrepreneurs in Rwanda have little skills in risks management, in information flow and business support services. A study done by Private Sector Federation
revealed that small business firm fails to achieve growth due to shortage of loan or other form of assistance. In Nyagatare District, most of small and medium enterprises fail because shortage of financial supports services and non-financial means of support. Hence, this has led to poor business growth of small business enterprises.

1.3 Objectives of the Study

This research project consists of general and specific objectives.

1.3.1 General objective

The overall objective of the study is to assess the financial accessibility and growth of small and medium enterprises in Rwanda. A case of selected small and medium enterprises in Nyagatare District

1.3.2 Specific Objectives

The specific objectives of the study were as follow

i. To determine the collateral requirements of financial accessibility that contribute to the growth of small and medium enterprises in Nyagatare District

ii. To identify the extent to which business support services that contribute to the growth of small and medium enterprises in Nyagatare District

iii. To establish relationship between financial accessibility and growth of small and medium enterprise in Nyagatare District.
CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.4 Theoretical framework
The study used two theories that bring the implications to the current research. These theories include credit rationing theory and financial constraints theory.

2.4.1 Credit rationing theory
Credit rationing theory is the theory established by Stiglitz and Weiss (1981) and was further supported by different authors including Bester (1985), Cressy (1996), Bertensperger & Devinner, 1985). This theory assumes that some borrowers receive loan while others do not receive due to some credit default payments. This situation is caused by market imperfection and information asymmetric. The credit rationing theory assumes that requesting financial support leads financial institutions to charge high interest rate (Stiglitz and Weiss, 1981).

2.4.2 Financial constraints theory
The theory of financial constraints is the theory established by Evans and Jovanovic (1989). Financial constraints theory assumes that all business, whether small or big, work towards comparative advantage to acquire or refuse to acquire external financial capital if they observe that there are some constraints in acquiring the borrowed loans. This theory was also supported by a number of authors including (Inessa & Mylenko, 2003), Jappelli & Pegano, 2005). The implication of this theory in the current study is that the growth of small and medium enterprises depends or is determined by financial accessibility (loan) from any financial institutions, cooperative, family or friends.

2.5 Conceptual framework
In this research, the study the independent variable is financial accessibility and has the main components such as collateral requirements, support opportunity and loan and grants. The dependent variable is growth of small and medium enterprises and is measured by annual sales/turndown, number of employees and assets growth. In regards, researcher established the intervening variables that may affect the study variables and they are treated as external factors which consist of the size of the firmware and government policies.
Independent variable

Financial accessibility
  i. Collateral requirements
  ii. Support opportunity
  iii. Loans and grants

Dependent variable

Growth of small Medium Enterprises
  i. Annual turnover
  ii. Number of employees
  iii. Asset growth

Intervening variable

Firm size, age and government policy

Figure 2. 1: Conceptual framework

Source: Research, 2020
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research design

Correlation research design was used and was important as it indicates the predictive study where more than one variable affect other variable.

3.2 Target population

In this researcher project, researcher has chosen 753 small and medium enterprises in Nyagatare District as selected population. Therefore the selected sample was drawn from the total target population indicated.

3.3 Sample Design

3.3.1 Sample Size

To get the sample size, researcher used Slovin’s formula as presented as follow. \[ n = \frac{N}{1 + N \epsilon^2} \]

As the total target population remains 753 small and medium enterprises, and the sampling error as 5%, researcher used Yamane formula to determine the sample size and is computed as follow.

\[ n = \frac{753}{1 + 753(0.05)^2} \approx 261.2 \approx 261. \]

3.3.2 Sampling Techniques

In this study, researcher used the simple random sampling technique to select the respondents among SMEs of Nyagatare District.

3.7 Data analysis

Data presentation was done through IBM to provide information in the form of percentages and frequency tables, charts and bar graph. The quantitative data was analyzed through IBM to present systematically meaningfully information. Researcher employed econometrics and the model assumed linear and expressed in the form, \[ y = f(\beta_1x_1 + \delta_2x_2 + \beta_3x_3 + \delta_4x_4) + \epsilon \]

In this research, the sampling error is indicated by \( y \) and is obtained through model. A multiple regression model for access effect on SME growth was represented as follows \( y = \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \epsilon \). Where \( y \), the financial accessibility is, \( \beta_{1,2,3,4} \) and \( x_{1,2,3,4} \) are constants and variables (collateral requirements, loan and grants and support services respectively.
CHAPTER FOUR: RESEARCH FINDINGS AND PRESENTATION

4.1 Personal characteristic of research participants

4.1.1 Respondents ‘Age
The information collected in terms of age of respondents is presented in table 4.1 below

Table 4. 1 Age distribution among the respondents

<table>
<thead>
<tr>
<th>Age brackets</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid 21-30</td>
<td>147</td>
<td>59.8</td>
</tr>
<tr>
<td>31-40</td>
<td>64</td>
<td>26.0</td>
</tr>
<tr>
<td>Above 40</td>
<td>35</td>
<td>14.2</td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table 4.1 indicates that 59.8% of respondents were between 21-30 years. This shows that most small enterprises are established by young individuals who have cleared studies but due to high unemployment end up with small enterprises. Both 26 % and 14% represent business enterprises by older entrepreneurs between 31 to above 40.

4.1.2 Gender of respondents

Table 4. 2 Gender of respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Male</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>172</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>246</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table 4.2 reflects that 30.1% of the genders comprised of males while 69.9% comprised of women. This indicates that most of the small businesses are owned by women who represent a larger percentage. This is because most of these women are tired of sitting at home as housewives thus most of them start business as means of being productive and also independent.
Table 4.3 Education levels of respondents

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid No education</td>
<td>25</td>
<td>10.2</td>
</tr>
<tr>
<td>Primary</td>
<td>49</td>
<td>19.9</td>
</tr>
<tr>
<td>Secondary</td>
<td>64</td>
<td>26.0</td>
</tr>
<tr>
<td>Diploma</td>
<td>69</td>
<td>28.0</td>
</tr>
<tr>
<td>Degree</td>
<td>39</td>
<td>15.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>246</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data

The information collected from respondents showed that 28% having business in Nyagatare District have completed diploma, 26% of respondents have completed secondary level of education, 10.2% had not any formal education but 15.9% have completed bachelor’s degree.

4.2 Presentation of research findings

4.2.1 Financial accessibility

Loan was a measure of financial accessibility and determining whether loan was a source of financing was used to determine how accessible loans are to the SMEs in this sample.

Table 4.4 Main source of finance

<table>
<thead>
<tr>
<th>Main sources of finance</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Commercial bank</td>
<td>30</td>
<td>12.2</td>
</tr>
<tr>
<td>Microfinance/Cooperative</td>
<td>57</td>
<td>23.2</td>
</tr>
<tr>
<td>Friends</td>
<td>15</td>
<td>6.1</td>
</tr>
<tr>
<td>Family</td>
<td>47</td>
<td>19.1</td>
</tr>
<tr>
<td>Personal saving</td>
<td>97</td>
<td>39.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>246</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data

According to the findings as presented in Table 4.9, loans were provided by commercial Banks, microfinance and cooperatives, friends and families. According to 30(12.2%) the commercial
Bank loan was the source of the startup, 57(23.2%) financed through Microfinance and cooperative loans, 15(6.1%) from friend provided loans, 47(19.1%) through family loans. Research findings showed that 97(39.4%) of respondents were supported by their personal saving while 23% of respondents received credits from microfinance institutions or financial cooperatives. The expansion of small business firm depends of the extent level financial institution gets loan from different sources whether private or public Prasad et al (2000).

### 4.2.2 Ever applied for loan

The information on whether small business firm have applied for loan are important. Following the response in Table 4.9 that showed a large percentage financing their business through personal savings, the question in Table 4.10 was to establish the motive for the low loan financing as startup methods.

**Table 4.5 Ever applied for loan**

<table>
<thead>
<tr>
<th>Ever applied for loan</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>185</td>
<td>75.2</td>
</tr>
<tr>
<td>No</td>
<td>61</td>
<td>24.8</td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Primary data

According to the findings in Table 4.10, 185(75%) had applied for a loan before the period 2011-2017. The remaining 61(25%) did not apply in the period quoted. The majority therefore had desired to startup using a Bank loan. The research findings discussed above is supported by Mitter and Kraus (2011) added that trade credit is an important aspect of internal source of finance which provides an assurance between suppliers and customers.

### 4.2.3 Number of applications

To determine the availability of loan or the readiness of the loan provider to give loan, the respondents were asked how many times they had to apply for the loans.
According to Table 4.11, of the 185 respondents who had ever applied for a loan, 37(20%) applied once, 24(13%) twice, 92(50%) thrice and the remaining 32(17%) for more than four times.

### 4.2.4 Financial Accessibility conditions

**Table 4. 7 Conditions to access bank loans?**

<table>
<thead>
<tr>
<th>What were the main conditions to access the bank loan?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
</table>
| High valued Collateral                                                  | 173 | 94%
| Solidarity group membership                                            | 51  | 28%
| Business registration documents                                         | 185 | 100%
| Banking period                                                          | 180 | 97%
| Having received a loan in the previous bank                             | 177 | 96%
| Bank statement or loan clearance certificate                            | 185 | 100%
| Having received loan, at least once, with the current bank              | 50  | 27%

Source: Primary data

According to the finding in Table 4.12, 173(94%) of the applicants were asked to provide high valued collateral, 51 (28%) were to belong to a solidarity group, 185(100%) were to have business registration and a bank statement or loan clearance certificate. A banking period was demanded by 180(97%), and period for loan received in previous bank was also required according to 177(96%). As indicated by the study done by Bester (1985), financial institutions usually refuse to provide financial loan to small and medium enterprises to the fact that these are more affected by market changes like interest rate, fluctuation in the price, competition and inflation.
4.2.5 Type of business support services

Table 4.8: Type of support received from BDF

<table>
<thead>
<tr>
<th>Business support service</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy</td>
<td>214</td>
<td>100%</td>
</tr>
<tr>
<td>Investment advisory services</td>
<td>169</td>
<td>79%</td>
</tr>
<tr>
<td>Business Management training</td>
<td>197</td>
<td>92%</td>
</tr>
<tr>
<td>Tax compliance</td>
<td>102</td>
<td>48%</td>
</tr>
<tr>
<td>Grants and guarantee</td>
<td>214</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Primary

According to Table 4.14, all had (100%) received financial literacy and grants/guarantees. Other support services included investment advisory services, 169(79%), business management training, 197(92%), and tax compliance, 102(48%).

4.2.6 Amount of credits/loan received 7 years before BDF

Table 4.15 determines access to credit by SMEs without the help of BDF while the next Table 4.16 determines access through BDF.

Table 4.9 Amount received in the past 7 years

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 1 million</th>
<th>1-5 m</th>
<th>5-10m</th>
<th>10-15m</th>
<th>15 m and above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>2005</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>2006</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>2007</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2008</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>2009</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2010</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Totals</td>
<td>38</td>
<td>15</td>
<td>13</td>
<td>7</td>
<td>5</td>
<td>78</td>
</tr>
</tbody>
</table>

Source: Primary

According to the table 4.15, out of 78 who applied for credit in the preceding years to 2011, 38 of them received less than 1 million and at most 7 received 10-15 Million. In 2004, 15 received credit but 9 of them received less than 1 million and the maximum received was 10-15Million by
only a single SME. In 2005, 2006 and 2007 again those who received less than 1M were 11 but the maximum was between 5-10 M. while in 2006 those who received loan were 9 but 7 received <than 1M and the maximum was 5-10M received by only two firms.

### 4.2.7 Amount received with financial support from BDF

#### Table 4.10 Amount received with financial support from BDF

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 1 million</th>
<th>1-5 m</th>
<th>5-10m</th>
<th>10-15m</th>
<th>15 m and above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>6</td>
<td>18</td>
<td>20</td>
<td>3</td>
<td>0</td>
<td>47</td>
</tr>
<tr>
<td>2012</td>
<td>3</td>
<td>24</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>2013</td>
<td>2</td>
<td>3</td>
<td>20</td>
<td>8</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>2014</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>2017</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>65</td>
<td>60</td>
<td>28</td>
<td>14</td>
<td>185</td>
</tr>
</tbody>
</table>

Source: Primary data

According to the findings in Table 4.16 in 2011, 6, 18, 20 and 3 of 47 that received finances were given below million, 1-5million, 5-10 Million and 10-15 Million respectively. This was just soon after BDF was established and in 2012, 3 received less than 1 million out of 30 firms. In 2013, 2 out of 33 received less than 1 million and by 2017 out of 30 firms only 9 firms received 15 million and above. Figure 4.3 is a difference of access to finance with the help and without help of BDF. The impact was calculated as Access by Support with BDF – Access without financial support services.

![Impact of Support Services](image)

**Figure 4.1 Effect of Business Support services**
According to Figure 4.3, up to 2011, access to finances before the establishment of BDF was very low. It majority received less than 1 Million that even by 2011 BDF support was insignificant to make a difference. In 2012 soon after establishing BDF and 2013, 2014 more applicants received loans amounting from 1-5 Million. The 5-10 Million categories also increase in 2011 and 2014 with the help of BDF. In the 10-15 Million categories a high increment was in 2015 though others too received.

### 4.2.8 Annual turnover of SMEs before BDF support

**Table 4. 11 Annual turnover before BDF support**

<table>
<thead>
<tr>
<th>Before 2011</th>
<th>&lt; 1 million</th>
<th>1-5 m</th>
<th>5-10m</th>
<th>10-15m</th>
<th>15 m and above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>2005</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>2006</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>2008</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>2009</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>2010</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>10</strong></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
<td><strong>57</strong></td>
</tr>
</tbody>
</table>

**Source: Primary Data**

According to Table 4.17 on average 5.5 SMEs realized annual turnover of less than 1 Million, about 1.7 got 1-5 Million, 1.8 realized 5-10 Million, 1.1 received 10-15 Million and 1 got 15 and above millions as annual turnover.

### 4.2.9 Annual turnover of SMEs after BDF support

**Table 4. 12 Amount of Turnover after BDF**

<table>
<thead>
<tr>
<th>From 2011-2017</th>
<th>&lt; 1 million</th>
<th>1-5 m</th>
<th>5-10m</th>
<th>10-15m</th>
<th>15 m and above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>2012</td>
<td>9</td>
<td>13</td>
<td>8</td>
<td>2</td>
<td>10</td>
<td>42</td>
</tr>
<tr>
<td>2013</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>2014</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>2015</td>
<td>5</td>
<td>6</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>2016</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>3</td>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>2017</td>
<td>11</td>
<td>12</td>
<td>7</td>
<td>10</td>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td><strong>57</strong></td>
<td><strong>56</strong></td>
<td><strong>54</strong></td>
<td><strong>27</strong></td>
<td><strong>20</strong></td>
<td><strong>214</strong></td>
<td></td>
</tr>
<tr>
<td>Average turnover</td>
<td><strong>8.1</strong></td>
<td><strong>8</strong></td>
<td><strong>7.7</strong></td>
<td><strong>3.8</strong></td>
<td><strong>2.8</strong></td>
<td></td>
</tr>
</tbody>
</table>
According to Table 4.18, on average 8.1 realized annual turnover of less than 1 million with the help of BDF. In the category 1-5 Million there were 8 on average, 7.7 in the 5-10 Million category, over 3.8 and 2.8 in the category 10-15 million and above 15 million respectively.

### 4.2.10 Relationship between financial accessibility and SMEs in Rwanda

**Table 4.13 Model summary**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>.350</td>
</tr>
<tr>
<td>R Square</td>
<td>.059</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>.059</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>.100</td>
</tr>
<tr>
<td>Log-likelihood Function Value</td>
<td>53.449</td>
</tr>
</tbody>
</table>

**Source:** Primary Data

Research findings as presented in table 4.18 showed the correlation between financial accessibility and growth of small and medium enterprises and this showed by coefficient of 0.350 with a square of 0.059.

**Table 4. 14 : Analysis of variance (ANOVA)**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.067</td>
<td>1</td>
<td>.028</td>
<td>.005</td>
</tr>
<tr>
<td>Residual</td>
<td>.674</td>
<td>67</td>
<td>.010</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.740</td>
<td>246</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Primary Data

The relationship was significant at p = 0.005 with a mean square of regression at 0.028 implying no difference in the square.
Table 4. 15 Regression Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.030</td>
<td>.119</td>
<td>.318</td>
<td>.124</td>
</tr>
<tr>
<td>collateral</td>
<td>.100</td>
<td>.039</td>
<td>.318</td>
<td>.124</td>
</tr>
<tr>
<td>requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access support</td>
<td>.043</td>
<td>.078</td>
<td>-.067</td>
<td>.118</td>
</tr>
<tr>
<td>opportunity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access loans and</td>
<td>.065</td>
<td>.088</td>
<td>-.119</td>
<td>.123</td>
</tr>
<tr>
<td>grants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data

The intercept of the regression was 1.030 and statistically significant (p = 0.000). While the coefficient of collateral requirement was 0.100 and p = 0.003. Access to support opportunity had an intercept of 0.044 but significant and finally access to loans and grants had it at 0.065 and also positive. The findings justify the model relationship below:

\[ y = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \epsilon \]

Where is \( y \), financial growth and constants, \( \beta_{1,2,3,4} \) are constants and variables (collateral requirements, access to business support services and loan and grants respectively).

Substituting the coefficients, the model therefore is modified as:

\[
\text{SME growth} = 0.1(\text{access to Collateral requirements}) + 0.043(\text{access to Business support services}) + 0.063(\text{access to loan and grants}) + 1.03
\]
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of findings
In this section, researcher discussed themes related to the research objectives such as to determine the extent to which collateral requirements affect the growth of SMEs in Nyagatare District, to determine the level of support opportunities the growth and development of small and medium enterprises. The findings for this research was drawn from respondents own answers and are grouped following the research objectives.

5.1.2 Findings of research objectives

5.1.2.1 To determine the collateral requirements of financial accessibility that contributes to the growth of small and medium enterprises in Nyagatare District.

The findings as presented in table 4.5, loans were provided by commercial Banks, microfinance and cooperatives, friends and families. According to 30(12%) the commercial Bank loan was the source of the startup, 57(23%) financed through Microfinance and cooperative loans, 15(6%) from friend provided loans, 47(19%) through family loans. A total of 97(39%) financed the business through personal saving. The finding shows that majority of the respondents financed their business startup through personal saving but a considerable percentage 23% financed through microfinance and cooperative loans. Commercial banks and other means too contributed.

The findings in Table 4.6, 185(75%) had applied for a loan before the period 2011-2017. The remaining 61(25%) did not apply in the period quoted. The majority therefore had desired to startup using a Bank loan. According to Figure 4.1, 80% of the respondents who applied for the loan did not receive it. This explains the use of personal savings that was revealed in previous finding. The research findings showed that 185 respondents who had ever applied for a loan, 37(20%) applied once, 24(13%) twice, 92(50%) thrice and the remaining 32(17%) for more than four times. The finding indicated that 173(94%) of the applicants were asked to provide high valued collateral, 51 (28%) were to belong to a solidarity group, 185(100%) were to have business registration and a bank statement or loan clearance certificate. A banking period was demanded by 180(97%), and period for loan received in previous bank was also required.
The findings show that there were several conditions that were placed on a loan applicant and high value collateral was just among the requirements.

5.1.2.2 To identify the extent to which business support services those contribute to the growth of small and medium enterprises in Nyagatare District

As indicated in the table 4.15, out of 78 who applied for credit in the preceding years to 2011, 38 of them received less than 1 million and at most 7 received 10-15 Million. In 2004, 15 received credit but 9 of them received less than 1 million and the maximum received was 10-15 Million by only a single SME. In 2005, 2006 and 2007 again those who received less than 1M were 11 but the maximum was between 5-10 M. while in 2006 those who received loan were 9 but 7 received <than 1M and the maximum was 5-10 M received by only two firms. The research findings also show that majority of the recipients of the loans were those of less than 1 million and very few were able to more than 10 Million. According to the research findings in table 4.16 in 2011, 6, 18, 20 and 3 of 47 that received finances were given less than 1 million, 1-5 million, 5-10 Million and 10-15 Million respectively. This was just soon after BDF was established and in 2012, 3 received less than 1 million out of 30 firms. In 2013, 2 out of 33 received less than 1 million and by 2017 out of 30 firms only 9 firms received 15 million and above.

Research findings as shown in table 4.17 indicated that on average 5.5 SMEs realized annual turnover of less than 1 Million, about 1.7 got 1-5 Million, 1.8 realized 5-10 Million, 1.1 received 10-15 Million and 1 got 15 and above millions as annual turnover. This shows that majority realized between 1-5 million in their annual turnover.

Research findings in table 4.18 showed that on average 8.1 realized annual turnover of less than 1 million with the help of BDF. In the category 1-5 Million there were 8 on average, 7.7 in the 5-10 Million category, over 3.8 and 2.8 in the category 10-15 million and above 15 million respectively. In terms of change in number of employees, research findings as shown in table 4.19 indicated that 58(27%) of the SMEs had 1 employee, 64(30%) had 2-5 employees and 92(43%) had above 5 employees. The finding shows that majority of the SMEs had above 5 employees after accessing BDF support. The research findings also showed that findings the number of assets increased as indicated by 176(72%) and according to 70(29%) it didn’t. the findings shows that the number of assets had increased after accessing support from BDF.
5.1.2.3 To establish the relationship between financial accessibility and growth of small and medium enterprises in Nyagatare District

The extent to which financial institutions contribute to the growth of small and medium enterprises has a coefficient of 0.350 with a square of 0.059. The relationship was positive implying improvement in financial accessibility also led to increase in the growth of SMEs sample. The relationship was significant at p = 0.005 with a mean square of regression at 0.028 implying no difference in the square. The intercept of the regression was 1.030 and statistically significant p= 0.000). While the coefficient of collateral requirement was 0.100 and p = 0.003. Access to support opportunity had an intercept of 0.044 but significant and finally access to loans and grants had it at 0.065 and also positive.

5.2. Conclusion

A positive relationship exists between financial accessibility and SME growth. SME growth is dependent on access to loans and grants, business support services as well as the ability to provide collateral requirements.

5.3. Recommendations

The government should continue the support through financial intermediaries such as BDF to support SMEs. The high valued collaterals and other requirements need to be fulfilled through the guarantees of these intermediaries.

5.4. Suggestion for further studies

(i) Effect of financial intermediaries on the profitability of SMEs in Rwanda

(ii) M&E provided by government on BDF supported SMEs and the performance of SMEs

(iii) Startup financing and its effects on the survival of local manufacturing companies owned through partnership in Rwanda.
REFERENCES


Appendix 1: Introduction letter

Mount Kenya University

INSTITUTE OF POST GRADUATE STUDIES & RESEARCH

INTRODUCTION LETTER

REF: MKU04/PGS&R/0211/2019

25th October, 2019

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

REF: RWIHMBA RUHUMURIZA Jean Claude-MBA/0156/12

This is to confirm that the above named person is a bonafide student of Mount Kenya University, Rwanda.

He is currently carrying out research work to enable him complete his Master of Business Administration (Accounting and Finance Option) Degree Program. The title of his research is: FINANCIAL ACCESSIBILITY AND GROWTH OF SMALL MEDIUM ENTERPRISES (SMEs) IN RWANDA: A SURVEY OF SELECTED SMEs, IN NYAGATARE DISTRICT

The information received will be confidential and for academic purposes only.

Any assistance accorded to him to complete this study will be highly appreciated.

Thank you.

Alice Kitungyevu (PhD)
Ag. DIRECTOR, INSTITUTE OF POST GRADUATE STUDIES & RESEARCH
Appendix 2: Acceptance letter

REPUBLIC OF RWANDA

EASTERN PROVINCE
NYAGATARE DISTRICT
B.P 20 NYAGATARE
TEL/FAX: 0252505249
E-mail: nyagataredistrict@minafoc.gov.rw

TO: AG. DIRECTOR, INSTITUTE OF POST GRADUATE STUDIES AND RESEARCH
MOUNT KENYA UNIVERSITY

SUBJECT: RESEARCH APPROVAL LETTER

I MUSHABE David Claudian Mayor of Nyagatere district, I accept RW HIIMBA Ruhrunza Jean Clauda a Student of MOUNT KENYA UNIVERSITY to do Research in Nyagatere district from the request of University in way of pursuing his Masters course in Business Administration. He will work in BDUsims Unit.

MUSHABE David Claudian
Mayor of Nyagatere District

CC:
District Executive Secretary

Nyagatere, 1/11/2019
NO................07/08/02/NJB
Appendix 3: Questionnaire

PART A: BACKGROUND INFORMATION

1. Age of respondents:
   a. Below 20 years
   b. 21 – 30 years
   c. 31 – 40 years
   d. Above 40 years

2. Gender of respondents
   a. Male
   b. Female

3. Marital status of respondents
   a. Single
   b. Married
   c. Others

4. What is your education level
   a. No education
   b. Primary
   c. Diploma
   d. Degree

5. Age of the firm?
   a. Before 2011
   b. 2011-2015
   c. 2016-2017

6. Number of employees at start
   a. 0-1
7. What is your firm’s main activity?
   a. Manufacturing
   b. Retail
   c. Wholesale
   d. Service providers

8. Type of ownership (legal status of the firm)
   a. Sole proprietorship
   b. Family ownership
   c. Partnership
   d. Company limited by share
   e. Company limited by liability
   f. Company limited by guarantee
PART TWO: SPECIFIC QUESTIONS

Objective one: To determine the collateral requirements that contributes to financial accessibility and growth of small and medium enterprises in Nyagatare District.

4. What were the main sources of finance of your firm? (tick what applies)

   (i) Loan from commercial bank [ ]

   (ii) Loan from microfinance or cooperative [ ]

   (iii) Loan from friends [ ]

   (iv) Loan from family [ ]

   (v) Loan from suppliers [ ]

   (vi) Loan from NGO [ ]

   (vii) Personally generated fund [ ]

5. Had you ever applied for loan?

   a. Yes [ ]

   b. No [ ]

6. How many loan applications did you make?

   a. One application [ ]

   b. Two applications [ ]

   c. Three applications [ ]

   d. Four applications and more [ ]

7. What main conditions did your bank ask you to fulfill?

   a. High valued Collateral [ ]

   b. Solidarity group membership [ ]

   c. Business registration documents [ ]

   d. Banking period [ ]
e. Having received a loan in the previous bank [ ]

f. Bank statement or loan clearance certificate [ ]

g. Having received loan, at least once, with the current bank [ ]

**Objective two: To identify the business support opportunities that contributes to the growth of small and business enterprises at Nyagatare District.**

8. How much credit did you receive over the last 7 years (tick the appropriate space)?

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-15m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 m and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Have you ever received BDF support for your business?
   a. No [ ]
   b. Yes[ ]

10. What are types of business support service have you received from BDF?
    a. Financial Literacy
    b. Investment advisory services
    c. Business Management training
    d. Tax compliance

11. Exactly how much were you able to receive with the support of BDF?

<table>
<thead>
<tr>
<th>Credit Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-15m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 m and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. What is your annual turnover before BDF Support for the periods below?

<table>
<thead>
<tr>
<th>Credit Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-15m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 m and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. What is your annual turnover after BDF Support for the periods below?

<table>
<thead>
<tr>
<th>Credit Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-15m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 m and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. How many employees in your firm after BDF support
   a. 0-1 [ ]
   b. 2-5 [ ]
   c. Above 5 [ ]

15. Has the number of assets changed since you accessed BDF support?
   a. Yes [ ]
   b. No [ ]

Objective three: To establish the relationship between financial accessibility and growth of small and medium enterprises in Nyagatere District.

16. Is there any relationship between loan and grants on growth of SMEs?
   a. Yes [ ]
   b. No [ ]

Thank you.