Analysis of Financial Inclusion on Female Entrepreneurship in Selected Regions of Cameroon: Centre, Littoral and West Regions

Dr. Takoutio Feudjio virginie
University of Bamenda, Faculty of Economic and Management Sciences
takoutio@yahoo.fr

ABSTRACT
This paper examines the effects of financial inclusion on female entrepreneurship in selected region of Cameroon. The researchers used binary logit model on secondary data extracted from Cameroon Enterprise survey 2016. The results of our findings revealed that financial inclusion has positive and significant effects on female entrepreneurship in Cameroon in general and in those regions in particular. Working capital from commercial bank as well as Microfinance Institutions has positive and significant effects on female entrepreneurship. The Pseudo R-Square shows that financial inclusion indicators used account for 8.75% of variations in female entrepreneurship. Variations in female entrepreneurship in Cameroon can therefore be explained by financial inclusion. Base on the fact that our results have shown positive and significant link between financial inclusion and female entrepreneurship, the following recommendations are made to reduce barriers to financial access so as to encourage female entrepreneurship in Cameroon. The priority should first be to implement the national gender policy and to expand it to include economic empowerment, and ensure that all government ministries are required to play their part in implementing it as this will go a long way to encourage female entrepreneurship in Cameroon. Secondly Commercial bank should be more relax on their credit policies (such as co-suety, business plan, sales books in place of collateral security) so as increase female access to credit and thus, entrepreneurship.

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1. Introduction

During the past century, because of economic development and modernisation, accelerated entrepreneurial activity was accompanied by the significant participation of women in entrepreneurship across the globe. Women’s contribution is said to span across various economic spheres in transition environments, extending to the wider process of social transformation Welter et al., (2006). Ufuk and Ozgen, (2001) argue that entrepreneurial activity has been adopted by increasing numbers of women in recent years. Kelly, Brush, Greene, and Litovs (2011), reinforce this statement by emphasizing that in recent years a significant number of women entered entrepreneurial activities and thus contributed significantly to entrepreneurship in all economies worldwide. In an attempt to highlight the importance of women entrepreneurship to the society, report by the International Labour Organization (ILO, 2003) confirmed that 128 women entrepreneurs have created 983 jobs in Tanzania, of which 752 are full-time paid jobs (an average of 5.9 per enterprise). thus, clearly indicating the crucial importance of women potential in value addition and wealth creation if properly utilized. Similarly women entrepreneurs have a crucial role in creating new jobs, and hence reducing unemployment Delmar and Holmquist, (2004).

Meanwhile the major obstacle to female entrepreneurship remains access to finance. Financial inclusion has gained importance since the early 2000s, a result of identifying financial exclusion and it is a direct correlation to poverty according to the World Bank. The relevance of access to financial services for women entrepreneurs to development, poverty reduction, decent work and the achievement of gender equality in developing countries is an issue receiving growing attention. Financial inclusion implies access to a broad range of financial services including, credit, insurance, pension and savings. It is extremely important that women have access to financial services and products that are designed according to their needs and taking account of their specific situations. Yet access to financial services does not receive sufficient attention in terms of women’s entrepreneurship development strategies.

An international comparison of private credit to GDP - the main indicator of financial depth - shows a gap with other developing economies For example, the ratio of private credit to GDP averaged 24% of GDP in Sub-Saharan Africa in 2010 and 39% in North Africa, compared with 57% for all other developing economies, and 72% for high-income economies Worldbank (2019). Despite series of efforts by all stakeholders in that direction, still much is desired if any meaningful progress needs to be achieved. That is, why in recent times, the World Bank Group of Central African State (BEAC) and other financial institutions, across the globe are working seriously to promote financial inclusion of women to help them achieve gender equity and poverty reduction as well as promote their participation in entrepreneurship activities. Increasingly, women's entrepreneurship is seen as a live wire for the social and economic transformation of society due to the critical role they play within both the realms of households and the community. In an attempt to highlight the importance of women's entrepreneurship to society, Lokhande (2003) posited that up to fifty % of small and medium scale enterprises in all countries are owned by women.

Findex CMR Gender gap report (2016) underline that in Cameroon, things such as collateral constraint, inadequate business plan, state of the economy and bureaucratic procedures in applying for loans/finances constitute a barrier for access of finance. The same report said that the high cost of financial services, the long paper work required to open an account, poor customers service, absent of guarantees, credit history among others have excluded a large part of the population from the financial system. The contribution of women entrepreneurs is still insignificant compared to other entrepreneurship due to a number of barriers to their financial inclusion. To find out how finance access affect female entrepreneurship in Cameroon in general and in particular in centre, littoral and west
regions, the current article looks at inclusion from the access/usage of services offered by the different categories of formal financial institutions (banks and microfinance institutions). At the end of our analysis, this article tries to rise up some solutions to the reduction of financial barriers to women entrepreneurship.

2. Financial Inclusion

Financial inclusion refers to a state in which all working age adults, including those currently excluded by the financial system, have effective access to the following financial services provided by formal institutions: credit, savings, payments, and insurance. In another word, financial inclusion is defined as the process by which access to and the use of formal financial services are maximised, whilst minimising unintended barriers, perceived as such by those individuals who do not take part in the formal financial system (Cámara & Tuesta, 2014).

Financial inclusion can be measured through the indicators of access to financial services like access to deposit services, access to creditor or through the indicators of use of financial services like use of accounts, use of loan, and percentage of working capital finance. In this article, financial inclusion is typically measured by indicators of access/usage of financial services.

The ‘access’ dimension refers to the availability or opportunity to use financial services, whereas the ‘use’ dimension refers to the actual use of such services (Allen, F., Demirgüç-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The essence of financial inclusion is to ensure that a range of appropriate financial services is available to every individual and enabling them to understand and access those services (Chattopadhyay, 2011). The primary aim of financial inclusion is, in the view of some, to increase ‘the proportion of individuals and firms that use financial services’ (World Bank, 2014) and, in the view of others, to ensure ‘access to finance by the poor and vulnerable groups’ (Rangarajan, 2008). All recognise the advantages of having multiple providers. Our measures of financial inclusion focused on two provider types (commercial banks and microfinance institutions).

3. Female Entrepreneurship

Entrepreneurship is a multilevel and complex phenomenon that gained importance in the global economy as a result of changes in employee qualifications, work contents, and psychological contracts in the employment field. The term entrepreneur is used to describe individuals who have ideas for products or services that they turn into a working business. Therefore, Female entrepreneurs are thus those women who organize and manage an enterprise, especially a business. In another words, women who innovates, imitates, or adopts a business activity is called woman entrepreneur (Sultana, 2012). Entrepreneurship contributes to economic growth in being a conveyor of new or existing knowledge spillover and creative ideas that might otherwise not be utilized and realized for the benefit of all (Dejardin, 2002; Audretsch, Keilbach and Lehmann, 2006; Heertje, 2006; Langowitz and Minniti, 2007).

4. Link Between Financial Inclusion And Female Entrepreneurship

The link between financial inclusion and women entrepreneurship continue to draw attention among researchers, practitioners, policy makers, and other stakeholders both at the national and international levels. The major purpose remains how to deepen financial inclusion of women to enable their participation in entrepreneurship activities in each economic. Financial capital is a crucial and vital asset for the entire entrepreneurial process. Lack of financial capital is frequent in the developing countries where women are not independent regarding their incomes and are mostly controlled by their
husbands. The literature supports the fact that female entrepreneurs, mostly in developing countries, face obstacles in obtaining credit for their entrepreneurial activities (Kuzilwa, 2005; Iganiga, 2008; Ibru, 2009; Okupkpara, 2009). Lower levels of wealth, access to capital, racial discrimination and inadequate networks have been and continue to be barriers to entrepreneurship women. The 2004 OECD report found the access to finance to be one of the specific obstacles to female entrepreneurship. however such obstacles are diminishing as financial institutions are becoming more sensitive to gender issues and start to perceive female entrepreneurs as a potential source of profit for them (Kay, Gunterberg, Holz, and Wolter, 2003).

5. Methodology

The data used for this article are from secondary source, extracted from the 2016 Cameroon Enterprise Survey Data collected on 361 enterprises in Cameroon by the National Institute of Statistics. Our data are restricted by the available data, which is collected only from 3 out of 10 regions of Cameroon covering Centre, Littoral and West Regions. The methods of data analysis involve the use of Binary Logit Model to analyse the correlations that exist between financial inclusion and female entrepreneurship. Binary logit model analysis was preferred over other techniques of data analysis especially the traditional Ordinary Least Square technique because our dependent variable (Female entrepreneurs) is binary in nature, What means that if Female entrepreneurs, it is code (1) or if it is not female entrepreneurs, it is code (0). Those were the only two possibly forms that the dependent variable could take. Binary logit was also preferred over the Linear Probability Model analysis because of its limitations such as: Non normality of the disturbance term, heteroskedastic variance of the error term, non-fulfilment of the range of probability since it can give probability values of even less than zero or greater than one, low R², unrealistic linearity.

5.1 Model Specifications

In order to examine the effects of financial inclusion on female entrepreneurship in cameroon:

The Binary Logit Model was used. The dependent variable used in capturing female entrepreneurship is the gender of the entrepreneurs (GENT) and the independent variables are drawn from the supply site of financial inclusion and focus on access/usage of financial services specifically access to credit. The independent variables are thus sub broken into: Commercial banks measure by Percentage of working capital from Commercial Bank (CBWKP), MFIs measure by Percentage of working capital from MFIs (MFIWKP). In short, working capital is the short-term loans given by financial institutions to their clients to meet their current, short-term obligations.

\[
\text{LOG} \left( \frac{p}{1-p} \right) = \beta_1 \text{CBWKP} + \beta_2 \text{MFIWKP} + \beta_3 \text{SAV} + u \quad \ldots \\
\]

Where:

- \( a = \text{Constant Term} \)
- \( \beta = \text{Parameters of Model} \)
Dependent Variable

GENT (Female entrepreneurship) which is binary in nature and capture by the gender of the entrepreneurs. That is if a woman owns at least 1% share (Female entrepreneurs (1) or not no female entrepreneurs (0)) extracted from 2016 Cameroon enterprise survey data (World Bank Database).

Independences Variables: access to finance

The independent variable is Financial Inclusion broken into:

- CBWKP: Percentage of working capital from Commercial Bank
- MFIWKP: Percentage of working capital from MFIs

Control Variable: usage of financial service

SAV: The control variable for this article is saving. It is a dummy variable (taking value 1 if Establishment has a Checking And\Or Saving Account and 0 otherwise). Financial savings are not only important to the business but helps the entrepreneurs to start the other venture and product in the business Tisdell, Ahmad, Agha, Steen, & Verreyne, (2020). In this regard, the role of financial savings is important to consider because it helps people to improve their standard of living by providing them opportunities related to their business activities Abdullahi et al., (2021).

6. Results

6.1. Legal Status of the Firms Owned by Females or males

<table>
<thead>
<tr>
<th>Legal Status of the Firm</th>
<th>Female Entrepreneurship</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (Male)</td>
<td>Yes (Female)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Public Limited</td>
<td>34</td>
<td>27</td>
</tr>
<tr>
<td>Private Limited</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Sole Proprietorship</td>
<td>18</td>
<td>85</td>
</tr>
<tr>
<td>Partnership</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Limited Partnership</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>231</strong></td>
<td><strong>130</strong></td>
</tr>
</tbody>
</table>

Source: Extracted from 2016 Cameroon Enterprise survey data

Table 1 above present the legal statuses of the enterprises sampled and it shows that majority of the enterprises sampled were Sole proprietorships with 85 of them owned by females while men owned 184 of the sole proprietorships. 61 of the enterprises were public limited companies (PLCs) otherwise called Shareholding companies with shares traded among whom 27 of them had female shareholders while 34 of them did not have female shareholders. 18 of the enterprises were private limited companies (LTDs) otherwise called Shareholding companies with non-traded shares where more of them (13 out of 18) had female shareholders while only 5 of them did not have female shareholders. 7 of them were also partnerships with more of them (4) having female shareholders while 4 of them were limited partnerships with only one having female shareholders and one other enterprise with no female share holder.
6.2. Top Manager of Enterprise Being a Female

<table>
<thead>
<tr>
<th>Is The Top Manager Female?</th>
<th>Freq.</th>
<th>%</th>
<th>Cum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't know (spontaneous)</td>
<td>1</td>
<td>0.28</td>
<td>0.28</td>
</tr>
<tr>
<td>Yes (Female)</td>
<td>56</td>
<td>15.51</td>
<td>15.79</td>
</tr>
<tr>
<td>No (Male)</td>
<td>304</td>
<td>84.21</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>361</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Extracted from 2016 Cameroon Enterprise survey data

The findings on table 2 show that only 15.51% of the enterprises had females as their top manager while 84.21% of them had males as their top managers. This shows issues of female marginalisation

6.3. Pairwise Correlation Analysis

Estimated Results of Binary Logit Model

<table>
<thead>
<tr>
<th>Table 3: Pairwise Correlation Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBWKP</td>
</tr>
<tr>
<td>CBWKP</td>
</tr>
<tr>
<td>MFIWKP</td>
</tr>
<tr>
<td>SAV</td>
</tr>
</tbody>
</table>

Source: Author 2022

The table 3 above presents the Pairwise correlation matrix that indicates the correlation, which exists among the independent variables included in the model. Pairwise correlation coefficients were tested in order to quantify the strength of the relationship between the independent variables. The closer the relationship is to 1, the stronger two variables are correlated. The correlation coefficients of the leading diagonals stand at 1 which indicates that each explanatory variable is perfectly collinear to itself. According to Gujarati (2004), if the correlation coefficient between the independent variables in the regression model has values exceeding 0.8, the possibility of multicollinearity among the variables in the model is high. Results in Table 3 show that the relative absolute value of the pairs of independent variables is less than 0.8. From the result in table 3, we can thus conclude that there is not multicollinearity among our variables.

<table>
<thead>
<tr>
<th>Table 4: Binary Logit Regression Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENT</td>
</tr>
<tr>
<td>CBWKP</td>
</tr>
<tr>
<td>MFIWKP</td>
</tr>
<tr>
<td>SAV</td>
</tr>
<tr>
<td>_cons</td>
</tr>
</tbody>
</table>

Number Of Obs 361
Wald Chi2(7) 35.18
Prob > Chi2 0.0000
Pseudo R2 0.0875

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Author, (2022)
The results on table 4 are been obtained by the binary logit regression analysis. Given that all the independent variables are continuous in nature except savings, which is a dummy, the marginal effects interpretation is preferred over other results.

The Wald Chi Square coefficient of 35.18 and its p-value of 0.0000 shows that the results are overall significant at 1% level of significance and thus 99% reliable. The Pseudo R-Square shows that financial inclusion indicators used account for 8.75% of variations in female entrepreneurship.

The findings show that, controlling for other effects, Commercial bank inclusion positively affect female entrepreneurship. The marginal effects of 0.006103 shows that a 1% increase in bank credit inclusion increases the likelihood of female entrepreneurship by 0.006103 and this effect is significant at 1% level of significance.

MFIs inclusion positively affects female entrepreneurship. The marginal effect of 0.0145132 shows that a unit increase in MFIs credit inclusion increases the likelihood of female entrepreneurship by 0.0145132.

The constant term’s coefficient of -0.6633622 shows that in the absence of all the financial inclusion variables used in this article, there will be a decrease in the likelihood of female entrepreneurship.

7. Interpretation of findings

Using the secondary data collected from 3 regions of Cameroon (Centre, Littoral and West Regions) extracted from the 2016 Cameroon Enterprise Survey, The main objective of this study was to investigate the effect of financial inclusion on female entrepreneurship. The finding showed that female access to finance from Commercial banks positively favours female entrepreneurship and increases the likelihood of female entrepreneurship by .006103. This result is related to the one obtained by Abdullahi, Othman, & Kassim, (2021) in Canada on their study on micro loan offer by the bank sector to women entrepreneurs. Thus, financial access from commercial bank can be a gateway to the use of additional financial services, which can allow businesses development through access to credit facilities and open up economic opportunities for women entrepreneurs.

From the finding, we also noticed that female access to finance from microfinance institutions favours female entrepreneurship and increases the likelihood of female entrepreneurship by.0145132. This result move in the same direction with the one obtained by Bruhn and Love (2014) in Mexico on their study on financial Access from Microfinance and women employment. Daley-Harris S. (2007) also showed that Microfinance services lead to women’s empowerment by positively influencing women’s decision-making power and enhancing their overall socio-economic status. As such, microfinance has the potential to make a significant contribution to gender equality and promote sustainable livelihoods and better working conditions for women.

The finding also shown those savings inclusions positively affect female entrepreneurship and increases its likelihood by.0604094. At the same time, the literature has found that providing individuals with access to savings instruments increases savings Ashraf et al., (2010a). It is a fact that the women entrepreneur who are establishing the businesses for their benefit and the benefit of the society, these entrepreneurs are more concerned to save the amount for any kind of uncertainty in the business.

8. Suggestions To The Reduction Of Financial Barriers To Females Entrepreneurship

From our results, we discovered that access/usage of financial services favour female entrepreneurship, but the literature shown that up to now financial constraints are considered as one of
the biggest challenges for entrepreneurs, especially in developing countries (World Bank, 2014). The banking sector in Cameroon dominates the financial sector and accounts for 95 percent of the financial system’s assets and the Access to banking services is around 20% Partnership for Economic Policy (1015). According to Kato & Kratz (2013) women in developing countries are denied access to credit facilities from the conventional banks because they lack quality education. Because of this, they do not have the specific skills to manage their work. In addition, most conventional banks in Africa deny women loans because of lack of collaterals. It also argued that because of the profit motives of some of the microfinance institutions they deny women who do not have the collateral for loans.

A growing number of banks across the continent are taking active steps to make borrowing easier for women entrepreneurs.

**Training and flexible access to finance**

Training improve business skills and expand access to finance. For example, the central bank can expand targeted credit lines for banks that are combined with training for women entrepreneurs, as well as the management and staff of financial institutions. Some bank in Africa like Kenya’s Equity Bank has business training; flexible collateral and repayment periods linked to its range of women-focused credit products, and in Uganda Centenary Bank offers literacy and digital training as part of its SupaWoman Club. According to Ayodele Olojede, the bank’s group head for emerging business in Nigeria, the bank offers advice on proper business structures, creating an online presence, mentorship, and access to market and networking opportunities so female-led businesses can grow and succeed during the first five years of operation.

In addition to improved access to finance, women business owners expressed high demand for greater access to information and training in order to grow their businesses.

**Regulation and flexible collateral**

The legal and regulatory indicators shed light on how valued and visible women are in a society relative to men and the extent of the progress that women have made toward gender equality. This information can highlight where further legal and policy action is needed. Regulations can also put in place Programs that promote and increase joint property registration to benefit women borrowers. For example, women’s lower access to assets can be addressed through changed regulation that will require married women be included in asset registration. This would give them equal rights to property, enabling them to use it as collateral. Similarly, regulations can be changed to address inheritance issues. Public sector initiatives that encourage private sector lending to women entrepreneur and equity funds, to address the constraints women face when starting up a new business, both in developed and developing countries. Modern collateral provisions, which significantly increase lending secured by movable assets, thus benefiting women disproportionately.

**Technology**

Technology can be used to ease barriers arising from social norms by enabling communication and interaction without open violation of societal expectations. It can increase women’s access to market information, enable women to work more flexible hours, and increase their possibilities for working remotely. Training, savings programs, networks of peers, and communication with mentors or role models through social media or other Internet platforms can thus become available, helping to overcome the limited geographical reach of program implementers and the time constraints on female
entrepreneurs. Technology affords anonymity, greater access to connections and knowledge sharing, the flexibility to shift the time and place of work, as well as opportunities for time and cost savings.

**Improved access to mobile savings**

Improved access to mobile savings encourages women to save larger amounts, at a lower cost and generates higher income and financial independence. Women need savings to compensate for this lack of physical collaterals, but also to protect their income (Ekpe et al., 2010). Besides, savings can be re-injected into the business as they allow to accumulate the necessary capital to launch economic activities, stimulate innovations, increase production and ultimately contribute to the growth of the business (Ekpe et al., 2010; Jagadeesh, 2015).

9. **Conclusions**

The objective of this study was to analyse the link that exist between financial inclusion and female entrepreneurship in select regions of Cameroon: centre, littoral and west regions and rise up some solutions to the reduction of financial barriers to females’ entrepreneurship. To achieve that, the analysis was done using the Binary Logit Model on secondary source data, extracted from the 2016 Cameroon Enterprise Survey Data collected on 361 enterprises in Cameroon by the National Institute of Statistics.

From the analysis, the findings showed that Commercial bank inclusion positively affect female entrepreneurship. The marginal effects of 0.006103 shows that a 1% increase in bank credit inclusion increases the likelihood of female entrepreneurship by 0.006103. The findings also showed that female access to finance from microfinance institutions favours female entrepreneurship and increases the likelihood of female entrepreneurship by 0.0145132. From The finding we also noticed that savings inclusion positively and significantly affect female entrepreneurship and increases it likelihood by 0.0604094.

In conclusion, all the independent variables positively and significantly favour female entrepreneurship in Cameroon in general and in particular in centre, littoral and west regions.

Base on the fact that our results have shown positive and significant link between financial inclusion and female entrepreneurship, the following recommendations are made to reduce barriers to financial access so as to encourage female entrepreneurship in Cameroon. The priority should first be to implement the national gender policy and to expand it to include economic empowerment, and ensure that all government ministries are required to play their part in implementing it as this will go a long way to encourage female entrepreneurship in Cameroon. Secondly Commercial bank should be more relax on their credit policies (such as co-surety, business plan, sales books in place of collateral security) so as increase female access to credit and thus, entrepreneurship. More so, COBAC and BEAC should review the completely regulatory system to provide clear direction, firm control and confidence in the system. They should more promote mobile savings to encourage women to save larger amounts at a lower cost and generates higher income and financial independence.

**REFERENCES**


