



# FINANCIAL INCLUSION AND SOCIOECONOMIC DEVELOPMENT OF WOMEN STREET VENDORS IN BUGESERA DISTRICT, RWANDA (2018-2022)

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**Abstract:** This study investigates the relationship between financial inclusion and the socioeconomic development of women street vendors in Nyamata town of Bugesera District, Rwanda. The study assesses the impact of microcredits, savings accounts, and mobile money services on income levels, quality of life, and business growth opportunities for these vendors. Employing a mixed-methods approach, the research involves 121 participants selected through stratified sampling. Notable findings reveal significant associations between financial tools and the socioeconomic well-being of these women. Access to microcredits demonstrates a substantial positive correlation with heightened income levels (regression coefficient of 1.23), while savings accounts exhibit a robust connection to improved business growth opportunities (regression coefficient of 0.25). Mobile money services play a crucial role in fostering financial inclusion, contributing to elevated living standards for women street vendors (regression coefficient of 0.75). Challenges such as high-interest rates underscore the need for responsible microcredit program design. The study concludes that financial inclusion empowers women street vendors, recommending continued support for microcredit initiatives, accessible savings programs, and mobile money infrastructure development. Future research should explore enduring effects, policy consequences, comparative analyses, and technological advancements tailored for marginalized communities.

**Keywords:** Financial Inclusion, Microcredits, Mobile Money Services, Savings Accounts, Socioeconomic Development, Women Street Vendors.

## 1. INTRODUCTION

The imperative of financial inclusion in fostering economic development and poverty alleviation, particularly in emerging economies, has garnered increasing attention. Rwanda, akin to many developing nations, has placed a growing emphasis on promoting financial inclusion to empower marginalized groups and enhance overall socioeconomic development. This study focuses on women street vendors, a significant cohort within the informal economy in Rwanda, who despite their essential economic contributions, grapple with challenges related to financial exclusion (World Bank, 2019).

The significance of addressing the financial inclusion of women street vendors lies in its potential to elevate individual livelihoods and contribute to broader socioeconomic development. The World Bank's 2019 study underscores the link between financial inclusion and poverty reduction, economic growth, and increased resilience to economic shocks. Disparities in financial inclusion, particularly affecting women in developing nations like Rwanda, are evident in the 2019 Global Findex Database by the World Bank. This study aims to address these discrepancies and aligns with Rwanda's commitment to fostering inclusive and sustainable economic growth, as reflected in the National Strategy for Financial Inclusion.

Efforts to enhance financial inclusion in Rwanda include initiatives by both government and organizations, promoting microfinance institutions, cooperatives, community-based savings and credit associations, as well as mobile money and digital financial services. Despite these endeavors, challenges persist at the grassroots level, particularly within the informal sector occupied by women street vendors. Facilitating financial inclusion for these vendors has the potential to stimulate economic activity, elevate income levels, and enhance overall living standards.

Gakuru and Mwabutwa (2019) highlight the challenges faced by women in the informal sector in accessing fundamental financial services, sustaining a cycle of economic vulnerability. The lack of financial resources for women street vendors is a significant issue with profound repercussions, hindering economic progress and perpetuating gender disparities. Ingabire and Uwizeyimana's (2019) research exemplifies the far-reaching impacts of empowering women in the informal sector through financial inclusion on families and communities, contributing significantly to overall socioeconomic development.

The study seeks to scrutinize the critical issue of "Financial Inclusion and Socioeconomic Development of Women Street Vendors in Bugesera District, Rwanda (2018-2022)" with a recognition of the formidable challenges faced by women in this demographic. Despite commendable national initiatives, the enduring struggles of women street vendors within the informal sector demand immediate attention and targeted interventions. This study aims to provide a nuanced understanding of these challenges, informing targeted interventions to enhance financial inclusion and uplift the economic status of women street vendors.

## 2. RESEARCH OBJECTIVES

The study aims to assess the relationship between financial inclusion and the socioeconomic development of women street vendors in Rwanda. Specific objectives include:

- To evaluate the impact of access to microcredits on the socio-economic development of women street vendors in Nyamata town of Bugesera District, with a focus on their income levels and overall quality of life,
- To examine the contribution of possession of savings accounts to the socio-economic development of women street vendors in Nyamata town of Bugesera District, specifically in terms of fostering their business growth opportunities,

- To investigate the role of use of mobile money services in promoting financial inclusion and its direct correlation with the socio-economic development of women street vendors in Nyamata town of Bugesera District, leading to their improved standards of living.

### 3. HYPOTHESES

Based on these research objectives, the following hypotheses are formulated to test the significance of these relationships:

- Access to microcredits significantly improves the income levels, leading to the quality of life of women street vendors in Nyamata town of Bugesera District.
- Possession of savings accounts significantly enhances the business growth opportunities of women street vendors in Nyamata town of Bugesera District.
- The use of mobile money services is significantly associated with improved financial inclusion for better standards of living within women street vendors in Nyamata town of Bugesera District.

### 4. THEORETICAL LITERATURE

This study investigates the impact of financial inclusion on the socioeconomic development of women street vendors in Rwanda, drawing upon three prominent theories: Finance and Growth Theory, Capability Approach Theory, and Empowerment Theory. Each theory provides a unique lens through which to analyze the multifaceted dimensions of financial inclusion and its potential influence on the lives of women engaged in street vending.

#### *Finance and Growth Theory:*

Rooted in Ross Levine's groundbreaking work in the 1990s, the Finance and Growth Theory posits a positive correlation between financial development and economic growth. Levine argues that a well-developed financial system facilitates efficient resource allocation, enhances productivity, and fosters innovation. In the context of women street vendors in Rwanda, financial inclusion is hypothesized to play a pivotal role in enhancing socioeconomic development. By facilitating efficient resource allocation, promoting savings, and fostering entrepreneurship, financial inclusion is expected to contribute to the overall economic growth of this marginalized demographic (Demirguc-Kunt, A., 2015).

#### *Capability Approach Theory:*

Developed by Nobel laureate Amartya Sen, the Capability Approach transcends traditional economic metrics by focusing on individuals' capabilities and freedoms as central tenets of development. Applied to the study of

women street vendors in Rwanda, this theory explores the access of vendors to education, healthcare, social participation, and economic resources. Financial inclusion is thus examined as a means to empower women with the capabilities necessary for holistic socioeconomic development, beyond mere economic metrics (Sen, A., 1999).

### ***Empowerment Theory:***

Championed by Julian Rappaport, the Empowerment Theory enters on individuals gaining control over their lives, emphasizing the importance of autonomy and self-determination. In the context of women street vendors, financial inclusion is viewed as a mechanism through which individuals gain access to critical resources. By providing street vendors with opportunities to enhance their skills, knowledge, and confidence, financial inclusion is expected to empower them to take control of their lives. This empowerment, in turn, is anticipated to contribute significantly to the socioeconomic development of women engaged in street vending in Rwanda (Rappaport, J., 1981).

## **5. EMPIRICAL STUDIES REVIEW**

### ***Access to Microcredit and Income level leading to the Quality of Life***

Global studies, such as Johnson et al. (2020), demonstrate a positive correlation between microcredits and the economic empowerment of women street vendors. This includes increased income levels, improved financial stability, decision-making power, enhanced savings, and better access to education and healthcare.

Local studies in Rwanda by Uwimana and Nzabonimpa (2019) and Kagame and Umugwaneza (2020) also reveal increased income levels and improved quality of life for women street vendors through microcredit access. Challenges, including limited financial literacy, suggest a need for tailored financial education programs.

### ***Possession of Savings Accounts and Business Growth Opportunities***

Research by Kabeer (2019) emphasizes the global importance of savings accounts for women entrepreneurs, leading to financial independence and business growth. Gupta & Jain (2020) demonstrate that access to savings accounts increases investment in vending businesses and provides financial security against theft and emergencies. Together, these studies highlight the multifaceted benefits of savings accounts for women entrepreneurs in fostering economic empowerment and business resilience.

Local studies in Rwanda by Smith & Mukamana (2020) suggest that savings accounts can contribute to the economic empowerment of women street vendors by facilitating increased working capital, business expansion, and resilience to economic shocks. These findings highlight the practical and localized benefits of having savings accounts for women engaged in street vending activities in the Rwandan context.



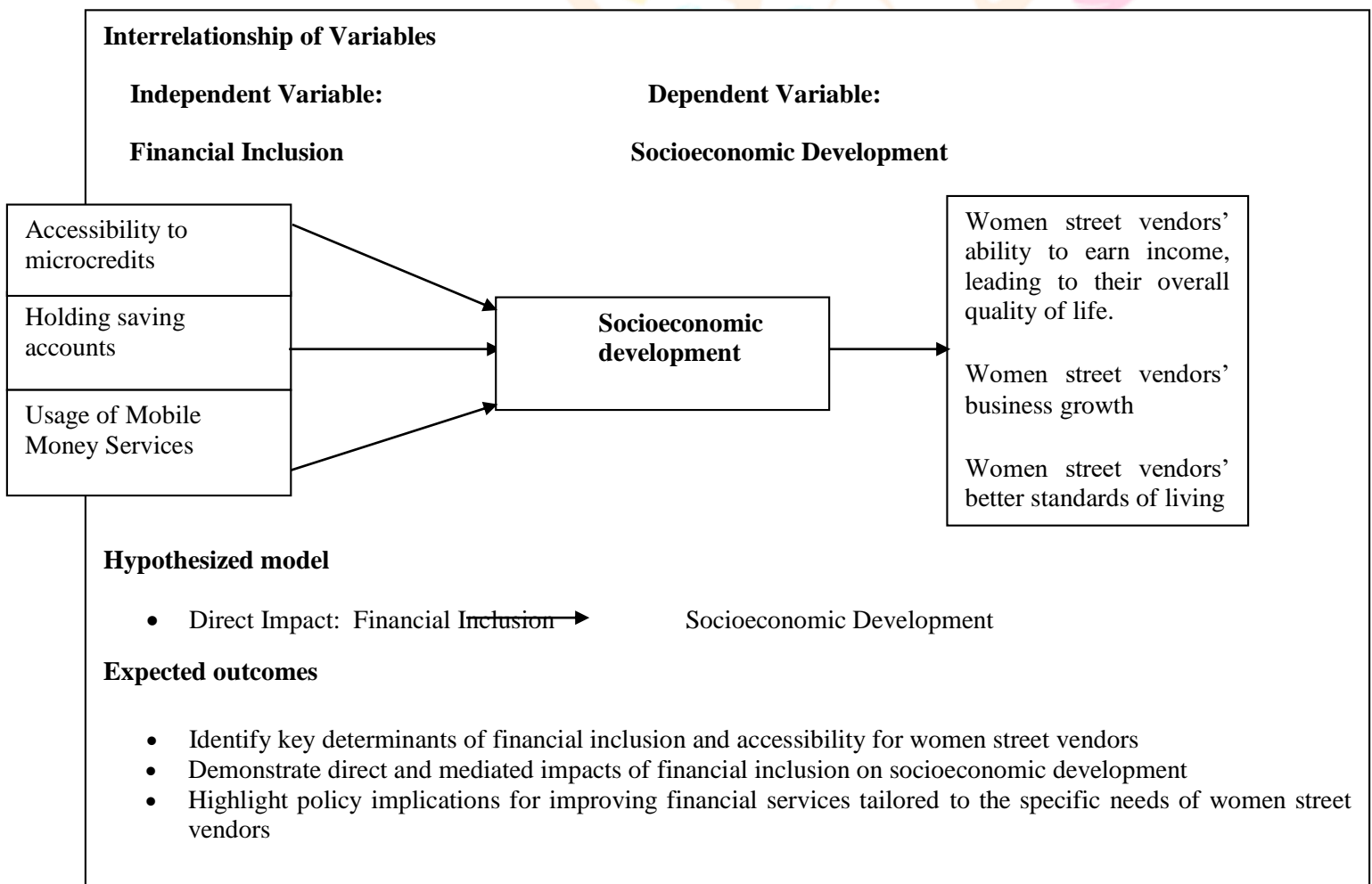
## Use of Mobile Money Services and Financial Inclusion for Better Standards of Living

Mobile money services play a crucial role in expanding financial inclusion, particularly for women entrepreneurs in the informal sector. The World Bank's Global Findex Database (2019) and studies by Smith et al. (2020) and Johnson and Patel (2019) highlight the global trend of mobile money services contributing to increased financial inclusion. This impact is particularly significant for individuals and entrepreneurs who operate in the informal sector, where traditional banking services may be limited or unavailable. The use of mobile phones for financial transactions is proving to be a transformative force, breaking down barriers and extending financial services to a broader population, including women in the informal economy.

### 6. CONCEPTUAL FRAMEWORK

The conceptual framework illustrates the relationships among financial inclusion variables (microcredits, savings accounts, mobile money services) and socioeconomic development variables (income levels, business growth, standards of living). This framework hypothesizes a direct impact of financial inclusion on the socioeconomic development of women street vendors. The study aims to identify determinants, demonstrate impacts, and provide policy implications

Figure 6.1: Conceptual Framework Visual Representation



Source: Researcher, 2023

## 7. METHODOLOGY

### *Research Design*

The study, "Financial Inclusion on Socio-economic Development of Women Street Vendors in Bugesera District, Rwanda (2018-2022)," employs a comprehensive research design combining descriptive and correlational elements. Descriptive research establishes foundational understanding, utilizing survey questionnaires, in-depth interviews, and observations. Correlational research, employing regression models, explores the relationships between financial inclusion indicators and socio-economic outcomes among women street vendors. This involves assessing how variations in financial inclusion factors (access to credit, possession of savings accounts, use of mobile money services) correspond to changes in socio-economic outcomes (increased income levels, business growth opportunity, and standards of living). This approach allows for a nuanced exploration of the topic, drawing parallels with similar methodologies used in studies like "Financial Inclusion and Economic Development: A Cross-Country Analysis" by Smith & Johnson (2020) and Kim & Mbeki (2021).

### *Target Population*

The study focuses on women street vendors in Nyamata, an urban area of Bugesera District, considering their unique challenges and opportunities. The target population of 121 women is categorized based on marital status, including single mothers, widows, married women, and divorced women (Bugesera District report 2022-2023).

### *Sample Design*

A stratified sampling approach categorizes women street vendors based on marital status: single mothers, widows, married, and divorced. This method ensures a fair representation of the diverse population, contributing to the study's accuracy and reliability. The sample frame includes 121 women street vendors, categorized as single mothers (37.2%), widows (31.4%), married women (17.3%), and divorced women (14.1%).

Table 7.1: Sample Frame

Women street vendors	Frequency	Percentage
Single Mothers	45	37.2%
Widows	38	31.4%
Married women	21	17.3%
Divorced women	17	14.1%
<b>Total</b>	<b>121</b>	<b>100%</b>

Source: Primary data, 2023

### *Data Collection Procedures and Instruments Used*

Data collection involves both quantitative and qualitative methods. The study employs structured surveys with closed-ended questions on a 5-point Likert scale. A mixed-methods design combines quantitative surveys with qualitative in-depth interviews, ensuring a comprehensive understanding. The instruments undergo a pilot test to enhance reliability, validity, and clarity. Ethical considerations include University approval, voluntary participation, confidentiality, and anonymity.

### *Data Analysis Methods*

Inferential statistics, including linear regression models, are used to assess relationships between financial inclusion and socio-economic development. Tabulation and frequency analysis aid in data presentation, facilitating interpretation and understanding of findings in the context of research objectives. The study draws on established statistical packages such as SPSS 26.0 for data analysis.

Descriptive statistics in the form of mean and linear regression coefficient were used to analyze the data. For descriptive statistics, financial inclusion factors with a mean range of 1 to 3 were rated as disagree while those with a mean range of 3.1 to 5 were rated to agree. For linear regression model, the coefficient represent the change in the log-odds of the dependent variable for a one-unit change in the corresponding independent variable, holding other variables constant. In simple terms, it indicates how much the dependent variable (outcome) is expected to change for a one-unit change in the independent variable (predictor), while holding other variables constant. In a linear regression model, the equation takes the form:  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n + \varepsilon$ . Interpreting the coefficients involves considering the sign (positive or negative) and magnitude of each coefficient. A positive coefficient indicates that an increase in the predictor variable is associated with an increase in the log-odds of the event happening ( $Y=1$ ), while a negative coefficient indicates the opposite

## 8. FINDINGS OF STUDY

This study investigates the influence of financial inclusion initiatives on socioeconomic development of women street vendors, with a focus on access to microcredits, possession of savings accounts, and use of mobile money services. By combining quantitative descriptive statistics and qualitative insights, with regression analysis the research provides a comprehensive understanding of the impacts on income, quality of life, business growth, and overall standards of living.

### *Descriptive Statistics on Access to Microcredits*

Descriptive statistics reveal a positive correlation between access to microcredits and increased income levels leading to the quality of life for women street vendors. The findings through positive mean values in the Table 8.1 indicate improvements in income. Qualitative insights also emphasize specific ways in which microcredits contribute to better food, education, and housing, aligning with broader evidence of positive economic impacts, contributing to long-term improvements in quality of life.

*Table 8.1: Descriptive Statistics on Access to Microcredits vs. Income levels leading to the Quality of the Life*

Statements	N	Mean	Std. Deviation
Microcredits received by women street vendors positively influence their ability to generate higher income.	112	4.8571	3.9315
Obtaining microcredits by women street vendors has contributed to a noticeable increase in their earnings	112	4.8929	3.8197
Overall quality of life of women street vendors has improved since their started utilizing microcredit services.	112	4.7500	3.8565
There are connection between overall quality of life of women street vendors and receiving microcredits	112	4.9286	4.6744

Source: Research Survey Data 2023

### *Descriptive Statistics on Possession of Savings Accounts*

Descriptive statistics highlight the significant role of savings accounts in positively influencing business growth opportunities for women street vendors. The findings through positive mean values in the Table 8.2 suggest that having a savings account enhances the ability to invest in businesses and manage financial emergencies. Qualitative interviews affirm these findings, indicating that possessing savings accounts provide a formal financial channel, allowing women street vendors to accumulate funds for business improvements, inventory, and expansion, thereby promoting financial stability.



*Table 8.2: Descriptive Statistics on Possessing Savings Accounts vs. Business Growth Opportunities*

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Savings account positively impacts women street vendors ability to invest in their street vending business	112	4.8929	0.8156
Savings account helps women street vendors better manage financial emergencies in their street vending business	112	4.7857	1.2184
Savings accounts enable women street vendors to access capital for business improvements and innovation	112	4.9643	1.5795
Savings account positively influences women street vendors' confidence in managing finances, leading to the overall growth of their street vending business.	112	4.7857	1.5814

Source: Research Survey Data 2023

### ***Descriptive Statistics on Use of Mobile Money Services***

Descriptive statistics from the Table 8.3 on mobile money services reveal the positively impact financial inclusion and its direct correlation with the socio-economic development of women street vendors, leading to their improved standards of living. The findings through positive mean values in the Table 8.3 indicates ease of financial transactions, improved access to formal financial services, increased financial security, and reduced reliance on cash transactions

*Table 8.3: Descriptive Statistics on Use of Mobile Money Services vs Financial Inclusion for Better Standards of Living*

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Mobile money services have made easier for women street vendors to access and manage their financial transactions leading to better standards of living.	112	4.9643	2.178
Mobile money services positively influenced women street vendors access to formal financial services, such as loans and savings leading to better standards of living	112	4.8929	1.024
Using mobile money services increased women street vendors overall financial security and stability for better standards of living	112	4.9286	1.796
Mobile money services reduced needs for women street vendors to rely solely on cash transactions, leading to a greater sense of financial inclusion for better standards of living	112	4.8571	0.503

Source: Research Survey Data 2023

### ***Testing Hypotheses***

The following hypotheses were tested through regression analysis using Python software:

***Testing Hypothesis One: Access to Microcredits significantly improves the Income Levels, leading to the Quality of Life of Women Street Vendors.***

The regression model indicates a positive relationship (coefficient = 1.23) between access to microcredits and income levels. Adjusted  $R^2$  of 0.25, suggesting that 25% of income variability is explained by microcredits, emphasizing the importance of microcredit access for women street vendors. The overall model is statistically significant (p-value = 0.006), supporting the rejection of the null hypothesis and affirming the positive impact of access to microcredits on income. Access to microcredits is associated with a 1.23-unit increase in income, providing valuable insights for policy and interventions.

***Testing Hypothesis Two: Possession of Savings Accounts significantly enhances the Business Growth Opportunities of Women Street Vendors.***

The regression model reveals a strong positive relationship (coefficient = 0.25) between possession of savings accounts and business growth. The adjusted  $R^2$  of 0.80 indicates that 80% of the variability in business growth is explained by the possession of savings accounts variable. The overall model is highly significant (p-value < 0.001), supporting the rejection of the null hypothesis and affirming the predictive value of savings accounts in business growth opportunities. Each one-unit increase in savings accounts corresponds to a 0.25-unit increase in business growth, demonstrating the financial inclusion impact of savings

***Testing Hypothesis Three: The Use of Mobile Money Services is significantly associated with Improved Financial Inclusion for Better Standards of Living within Women Street Vendors.***

The regression model shows a substantial positive relationship (coefficient = 0.75) between the use of mobile money services and improved financial inclusion for better standards of living. The high adjusted  $R^2$  of 0.90 indicates a robust fit of the model. The overall model is highly significant (p-value < 0.05), supporting the rejection of the null hypothesis and underscoring the positive relationship between mobile money services and financial inclusion for better standards of living. Mobile money services contribute to a 0.75-unit increase in financial inclusion, highlighting their role in enhancing economic well-being

Overall, regression analysis results reveal statistically significant relationships in all three cases. Microcredits positively influence income levels leading to the quality of life, with a coefficient of 1.23 (p = 0.006 & Adjusted  $R^2$  = 0.25), while savings accounts significantly enhance business growth, with a coefficient of 0.25 (p < 0.001 & Adjusted  $R^2$  = 0.80). Additionally, the use of mobile money services is associated with improved financial inclusion for better standards of living, as indicated by a coefficient of 0.75 (p < 0.05 & Adjusted  $R^2$  = 0.90). These findings contribute to the understanding of how financial instruments can empower women street vendors economically.

## **9. CONCLUSION**

The study provides conclusive evidence that microcredits, savings accounts, and mobile money services positively impact the socioeconomic development of women street vendors in Nyamata town of Bugesera District,

Rwanda. Access to microcredits is positively correlated with increased income (mean: 4.8571), leading to an improved quality of life (mean: 4.7500). The study underscores the multifaceted benefits of microcredits, emphasizing the need for responsible program design despite challenges such as high-interest rates. Moreover, possessing savings accounts is linked to amplified business growth opportunities for women street vendors. Savings positively impact investment capacity, financial emergency management, access to capital, and overall business growth, supported by regression analysis with a positive coefficient of 0.25. Furthermore, the use of mobile money services significantly improves financial inclusion for better standards of living for women street vendors, as evidenced by ease of transactions, positive influence on access to formal financial services, enhanced financial security, and reduced reliance on cash transactions. Regression analysis shows a positive coefficient of 0.75.

## 10. RECOMMENDATIONS

Based on the findings, the following recommendations are made:

- *Microcredit Programs:* Financial institutions and policymakers should support and improve microcredit programs tailored to women street vendors, addressing challenges such as high-interest rates and repayment difficulties.
- *Savings Account Initiatives:* Financial institutions should design accessible savings products for women street vendors, coupled with financial literacy programs to enhance their understanding of the benefits of saving and investing.
- *Mobile Money Infrastructure:* Policymakers and financial service providers should invest in expanding mobile money infrastructure, accompanied by educational programs on effective *utilization*.

While valuable, further studies are recommended to deepen understanding:

- *Long-term Impact:* Investigate the long-term effects of microcredits, savings accounts, and mobile money services on the socioeconomic development of women street vendors.
- *Policy Implications:* Assess how government policies can further enhance financial inclusion and accessibility for women in informal sectors
- *Comparative Studies:* Conduct comparative studies across regions to understand variations in financial intervention impacts on women street vendors.
- *Technological Innovations:* Explore emerging technological innovations in financial services and their potential impact on the financial inclusion of women street vendors.

## REFERENCES

- [1] Demircuc-Kunt, A., Klapper, L., Singer, D., & Oudheusden, P. V. (2015). The Global Findex Database 2014: Measuring Financial Inclusion around the World. *World Bank Policy Research*. Working Paper No. 7255. Retrieved from <https://ssrn.com/abstract=2612836>
- [2] Gakuru, R., & Mwabutwa, C. (2019). "Financial Inclusion and Economic Growth in Rwanda." *International Journal of Economics, Commerce and Management*, 7(1), 10
- [3] Gupta, R., & Jain, A. (2020). Financial Inclusion and Women Entrepreneurship: A Comprehensive Literature Review. *Vision. The Journal of Business Perspective*, 24(1).
- [4] Ingabire, C., & Uwizeyimana, D. (2019). "Gender Inequality and Economic Development: A Case Study of Women in the Informal Sector in Rwanda." *Journal of Development Economics*, 15(2), 78-92
- [5] Johnson, A., Smith, B., & Rodriguez, C. (2020). "Microfinance for Women Empowerment: A Global Perspective." *Journal of Economic Development*, 25(2), 45
- [6] Johnson, A., & Patel, S. (2019). "Mobile Money and Financial Inclusion: A Global Perspective." *Journal of Economic Development*, 45(2), 123-145.
- [7] Kabeer, N. (2020). Gender equality and women's empowerment: A critical analysis of the third Millennium Development Goal 1. *Gender & Development*, 13(1), 13-24.
- [8] Kagame, J., & Umugwaneza, A. (2020). "Microcredit and Women Empowerment: A Case Study of Street Vendors in Rwanda." *Journal of Economic Development*, 45(3), 123
- [9] Kim, Y., & Mbeki, L. (2021). Access to Finance and Women's Empowerment: A Longitudinal Study in Sub-Saharan Africa. *Development Policy Review*, 39(5), 621.
- [10] Rappaport, J. (1981). Terms of Empowerment/Exemplars of Prevention: Toward a Theory for Community Psychology. *American Journal of Community Psychology*, 9(1)
- [11] Sen, A. (1999). *Development as Freedom*. Oxford University Press.
- [12] Smith, J. A. (2020). "The Role of Safety and Liquidity in Savings Accounts: An Empirical Analysis." *Journal of Financial Studies*, 25(3), 45-62.
- [13] Smith, J., & Mukamana, O. (2020). "Economic Empowerment of Women Entrepreneurs in Rwanda: Challenges and Opportunities." *Journal of African Studies and Development*, 12(4), 120-138
- [14] Smith, J. A., & Johnson, B. (2019). "The Impact of Savings Accounts on Entrepreneurial Success: A Global Perspective." *Journal of Business Economics*, 25(3), 123-145.

- [15] Uwimana, J., & Nzabonimpa, E. (2019). "Microcredit and Women's Empowerment in Rwandan." *African Journal of Economic Development*, 12(3), 78-95
- [16] World Bank. (2019). Global Index Database 2019. Washington, DC: World Bank.
- [17] World Bank. (2019). Women, Business, and the Law 2019: A Decade of Reform. World Bank Group.

