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## **Effect of Financial Inclusion on Household Incomes in Rwanda: Case of Umurenge Savings and Credit Cooperatives in Southern Province**

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# Effect of Financial Inclusion on Household Incomes in Rwanda: Case of Umurenge Savings and Credit Cooperatives in Southern Province

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## Abstract

The objective of the study was to examine the effect of financial inclusion on household income in Rwanda's Southern province. The study was motivated by the fact despite Rwanda government's efforts to improve financial inclusion by strengthening the operations of Umurenge SACCOs throughout the country, the Fifth Integrated Household Living Conditions Survey (EICV5 2016/17) shows that the Southern province in Rwanda experiences the highest proportion of poor people at household which is at 36%. The public good theory of financial inclusion, income-led theory, inclusive growth theory and capability approach of financial inclusion form the theoretical foundation of this research. The sample size was 400 who included household heads who were members of Umurenge SACCO. However, 298 (74.5% response rate) were able to complete the survey. Stratified simple random sampling technique was used to select this sample. The researcher used correlational and cross-sectional survey designs. The close-ended questionnaire was used for collecting data. Data was analyzed through descriptive analysis (means and standard deviations) and inferential analysis (correlation and regression analysis). Findings show that access to affordable finance has a significant effect on household income in Rwanda's Southern Province ( $\beta=.122$ ,  $p<.05$ ). However, it is observed that financial literacy has no significant effect on household incomes in Rwanda's Southern Province ( $\beta=.018$ ,  $p>.05$ ). Similarly, access to credit has no significant effect on household income in Southern Province ( $\beta=.268$ ,  $p>.05$ ). The research recommends enhancing access to affordable financial services, improving comprehensive financial education, addressing income disparities through diversified income sources, supporting skill development to promote household financial stability in the Southern province. The findings are likely to help household heads to understand the effect of financial inclusion on household income and be able to make more informed financial decisions on how to enhance access to the much needed financial services.

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## 1. Introduction

Rwanda has made significant progress in promoting financial inclusion since 2008 (MINECOFIN, 2021). The National Bank of Rwanda has played a vital role in coordinating efforts to improve financial inclusion levels. Innovative approaches, such as mobile technology, have been used to reach remote areas, and microcredit initiatives like Umurenge SACCOs have increased access to financial services (Finscope Survey, 2020). These efforts have yielded positive results, with a significant increase in the percentage of adults with access to formal financial services which has increased from 48% in 2008 to 93% in 2020 (MINECOFIN, 2021).

Financial inclusion has played a significant role in stimulating household incomes through increased economic activity and productivity in the country especially by enabling rural households to save, access credit services and invest in productive ventures. According to the World Bank (2021), Rwanda has experienced consistent household income growth and productivity over the past decade. From 2008 to 2020, the country's GDP increased at an average annual rate of 7.2%. This growth can be partially attributed to the positive impact of financial inclusion initiatives.

However, despite the general impressive increase in household registered incomes, there persists a notable regional disparity in household income and poverty rates in the country. For example, the Southern Province continues to exhibit the lowest household incomes, has the highest poverty rates and remains the poorest region in the country (NISR, 2021). The NISR (2018) shows that at province level, the Southern province experiences the highest proportion of multidimensional poor people at household (which is at 36%) as observed in the fifth integrated household living conditions survey (EICV5 2016/17). This household poverty exacerbated by low incomes at household level raises a key question about the effect of financial inclusion programs in enhancing household incomes and reducing poverty in the Southern Province of Rwanda. The current study sought to address this question by investigating the effect of financial inclusion on household incomes in Rwanda's Southern Province using Umurenge SACCO as a case of study.

### 1.1 Purpose of the study

The study was intended to examine the effect of financial inclusion on household income in Rwanda's Southern province.

### Objectives of the study

- i. To investigate the effect of access to affordable finance on household income in Rwanda's Southern Province
- ii. To find out the effect of financial literacy on household incomes in Rwanda's Southern Province
- iii. To determine the effect of credit access on household income in Rwanda's Southern Province

## 2. Literature review

### 2.1 Theoretical literature review

There are many theories and theoretical frameworks or models that have been developed to explain the concept of financial inclusion. However, for the purpose of this study, the public good theory of financial inclusion, capability approach of financial inclusion, inclusive growth theory and income-led theory were adopted and examined.

### **2.1.1 Public good theory of financial inclusion**

The public good theory of financial inclusion was formulated by Ozili (2020). It argues that the (1) delivery of formal financial services to the entire population and (2) ensuring that there is unrestricted access to finance for everyone, should be treated as a public good for the benefit of all members of the population. As a public good, individuals cannot be excluded from using formal financial services and individuals cannot be excluded from gaining access to financial services. All individuals will enjoy basic financial services without paying for it. Also, access to financial services by one individual does not reduce its availability to others which means that all members of the population can be brought into the formal financial sector and everyone will be better-off (Ozili, 2020). The theory argues that all members of the population are beneficiaries of financial inclusion and nobody is left out.

Under the public good theory, any individual or small business that open a formal bank account can be offered free debit cards, they can also use the automated teller machines to perform transactions without being charged a transaction fee. Also, the suppliers of financial services such as financial institutions will have to bear the cost as a sunk-cost of doing banking business and the government can grant subsidy to financial institutions to help them cope with any resulting cost problems that may arise from offering free financial services (Ozili, 2020). A government can even offer a lump-sum cash deposit into the bank account of all citizens and make owning a formal account the only requirement for individuals to access the free deposits. This means that individuals who cannot pay their current debts and who cannot meet their basic needs at the micro-level will stand a chance to be economically empowered when financial inclusion is viewed as public good.

However, the public good theory has been criticized for several reasons: Firstly, the theory does not address the real cause of financial exclusion in the first place. Secondly, treating financial inclusion as a public good which requires public funding can divert public funds away from other important public projects in order to fund financial inclusion projects. Thirdly, the public good theory assumes that financial inclusion as a “public good” is free of charge and has no cost to the end-users of financial services (Ozili, 2020). When financial inclusion is treated as a public good, the level of financial inclusion may not be sustainable in the long-term even when supported with public funding if it comes at no cost to end users. Four, the public good theory of financial inclusion may have little relevance for developing and emerging economies because banks operating in developing countries and emerging economies are mostly funded on private investments rather than public investments, for this reason, it can be difficult to make financial inclusion a public good<sup>8</sup> in such countries.

Despite its criticisms, the theory remains relevant in explaining the relationship between financial inclusion and household income. Firstly, the public good theory suggests that everyone will benefit from financial inclusion regardless of status or income level. This means that both the rich and the poor, the financially included citizens and the financially excluded citizens, will enjoy the benefits of financial inclusion which will have a significant impact on household income (Ozili, 2020). Secondly, as a public good, it gives the government an opportunity to take responsibility for promoting financial inclusion and enhancing household incomes which reduces poverty levels.

### **2.1.2 Income-led theory**

The income-led theory of financial inclusion suggests that increased access to financial services leads to higher household income. This theory was developed by economists and researchers in the field of development economics, who highlighted the importance of financial services in poverty reduction (Kim, 2019). The theory assumes that by providing individuals with access

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to savings, credit, insurance, and payment systems, they can better manage their finances, invest in income-generating activities, and cope with economic shocks (Joo, et al., 2020). The key argument is that financial inclusion enables individuals to smooth consumption, invest in human capital, and participate in entrepreneurial activities, leading to increased income and economic mobility.

However, critics argue that the income-led theory overlooks the potential risks and vulnerabilities associated with financial inclusion, such as over-indebtedness and predatory lending practices (Nah, 2018). Additionally, it assumes that individuals have the necessary knowledge and skills to effectively use financial services, which may not always be the case (Joo, et al., 2020). Nonetheless, the income-led theory remains relevant in the study of financial inclusion and household income as it highlights the potential positive impact of financial services on poverty reduction and economic well-being.

Empirical studies have used the income-led theory of financial inclusion to examine the relationship between financial inclusion and household income. For example, a study by Karlan, Ratan, and Zinman (2014) examined the impact of providing access to basic savings accounts on income and well-being in Kenya. The study found that access to savings accounts led to increased savings, increased business investment, and higher household consumption. Another study by Klasen, Meyer, and Dislich (2016) explored the link between microcredit and household income in rural Bangladesh. The findings revealed that access to microcredit had a positive impact on household income, particularly among the poorest segments of the population. These empirical studies support the income-led theory by providing evidence of the income-enhancing effects of financial inclusion.

### **2.1.3 Inclusive growth theory**

The inclusive growth theory has evolved as a concept within the field of development economics and has been discussed and elaborated upon by various researchers and institutions over time (Ravalion, 2004). The theory suggests that expanding access to financial services among marginalized populations contributes to overall economic growth and development. The theory was developed by researchers and policymakers in the field of development economics, including World Bank economists (Rauniyar & Kanbur, 2009). While the exact origins and specific proponents of the theory are not attributed to a single individual or publication, it has gained prominence in the discourse on financial inclusion since the early 2000s.

The theory operates under certain assumptions, including that financial inclusion is a key driver of inclusive economic growth, that marginalized populations have untapped economic potential, and that access to financial services can unlock this potential. It assumes that financial inclusion leads to increased entrepreneurial activities, job creation, and productivity, thereby reducing poverty and inequality (Kakwani & Pernia, 2000). The key argument of the inclusive growth theory is that by providing financial services to underserved populations, such as low-income individuals and rural communities, financial inclusion can promote entrepreneurship, enhance productivity, and stimulate economic activity, leading to sustainable and equitable growth (Gupta, *et al.*, 2015). The theory highlights the importance of ensuring that the benefits of economic growth are shared by all segments of society.

However, the inclusive growth theory has faced some criticisms and weaknesses. One criticism is that it tends to focus on the supply-side interventions, such as expanding financial services, while neglecting the demand-side factors, such as financial literacy, consumer protection, and social norms (Ravalion, 2004). Critics argue that without addressing the demand-side

constraints, simply increasing access to financial services may not lead to the desired outcomes (Gupta, *et al*, 2015). Another criticism is that the theory overlooks the structural factors that perpetuate inequality and exclusion, such as unequal distribution of resources and power dynamics.

In the study of financial inclusion and household income, the inclusive growth theory is relevant as it provides a framework to examine the linkages between financial inclusion and broader economic outcomes. Several empirical studies have utilized the theory to explore the impact of financial inclusion on poverty reduction, income inequality, and economic development. For example, studies have examined the role of microfinance in promoting inclusive growth and poverty alleviation (Amin *et al.*, 2019; Duvendack *et al.*, 2011). These studies have used the inclusive growth theory as a guiding framework to analyze the mechanisms through which financial inclusion can contribute to household income and economic well-being.

### **2.1.4 Capability approach of financial inclusion**

The capability approach of financial inclusion was developed by Amartya Sen and Martha Nussbaum in the 1980s. This approach is rooted in the idea that individuals should have the freedom to choose and pursue the kind of life they value, and that access to financial services plays a crucial role in expanding their capabilities and choices (Sen, 1999; Nussbaum, 2000). The Capability Approach assumes that individuals have different sets of valuable capabilities, and financial inclusion can enhance their capabilities by providing tools for savings, credit, insurance, and payment systems. The key argument of this approach is that financial inclusion empowers individuals by enabling them to make informed decisions about their financial future, thus leading to improved well-being and income outcomes (Hulme & Mosley, 1996).

However, the Capability Approach has faced criticism for its lack of specificity in defining which capabilities are truly valuable and its focus on individual agency, which may overlook structural barriers and systemic inequalities (Narayan, 2005). Despite these criticisms, the Capability Approach remains relevant in the study of financial inclusion and household income as it highlights the importance of considering the multidimensional aspects of well-being beyond income alone (Meyer, 2018).

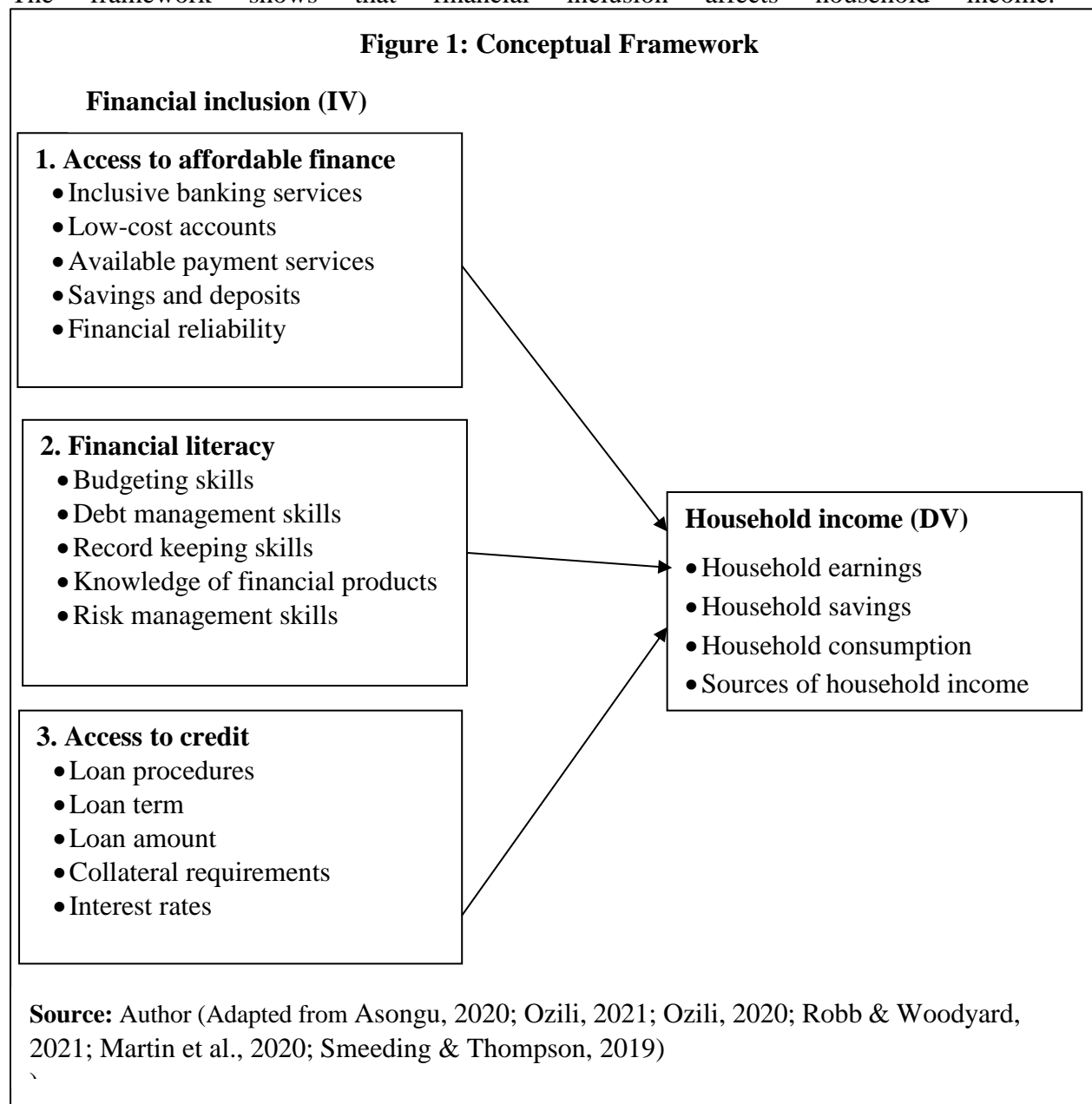
Empirical studies that have used the inclusive growth theory include Chakravarty and Verma's (2018) study in India, which found that increasing financial inclusion positively impacts household income and reduces poverty. Similarly, Kunt *et al.* (2017) examined the relationship between financial inclusion and income inequality across 147 countries, finding that greater financial inclusion is associated with reduced income inequality. These studies demonstrate the relevance of the inclusive growth theory in understanding how financial inclusion can contribute to broader economic growth, poverty reduction, and income improvements.

The four theories are relevant to the current study and the conceptual framework because of different reasons. First, the public good theory suggests that access to affordable finance promotes economic development and reduces poverty by providing individuals and households with the necessary tools and resources to participate in the formal financial system and improve their incomes (Levine, 2020). Second, the capability approach emphasizes the importance of financial literacy in improving household incomes by enabling individuals to have the freedom and opportunities to make economic choices that align with their values and preferences (Sen, 2017). Third, the inclusive growth theory posits that financial inclusion contributes to inclusive economic growth and household income growth by providing individuals with access to credit, which enables them to invest in income-generating activities and improve their livelihoods

(World Bank, 2017). Lastly, the income-led theory suggests that household income growth is a function of various factors including financial access, ability to secure loans/credit and as well as capacity development which includes financial literacy (Thirlwall, 2019). In this study, household income is the dependent variable, reflecting the overall economic well-being and prosperity of households. By examining the relationships between access to affordable finance, financial literacy, access to credit, and household income, this research aims to contribute to the understanding of the dynamics and implications of financial inclusion in Rwanda's context.

## 2.2 Conceptual framework

The conceptual framework (Figure 1) shows the relationship between financial inclusion which is the independent variable (IV) and household income which is the dependent variable (DV). The framework shows that financial inclusion affects household income.



As figure 1 shows, the conceptual framework for this study is based on three elements/constructs of financial inclusion. The first construct is access to affordable finance which will be measures based on the indicators of inclusive banking services, low-cost

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accounts, available payment services, savings and deposits and financial reliability. The second construct is financial literacy whose underlying indicators include budgeting skills, debt management skills, record keeping skills, knowledge of financial products and risk management skills. The third construct is access to credit which will be measured based on loan procedures, loan term, loan amount, collateral requirements and interest rates. These three constructs have been selected as the independent or predictor variables for the study. On the other hand, household income, which is the dependent variable, will be measured based on four indicators including change in household earnings, change in household savings patterns, change in household consumption patterns and sources of household income.

### **3. Material and methods**

The study used a correlational and cross-sectional survey research designs with quantitative approaches. The population of the study was 332,539 people who were members of Umurenge SACCO in the 8 districts of Rwanda's Southern province. Table 3.1 shows the population target. The appropriate sample size was determined using Yamane's simplified formula for calculating sample size. The total sample size of for all members of Umurenge SACCO in Southern province was 400 respondents.

The researcher used stratified simple random sampling technique to select the respondents. Stratified sampling was applied by dividing the samples into 8 categories to represent each of the 8 districts in Southern province. Then simple random sampling was applied to select respondents from each district using the lottery number method. Here, the researcher wrote numbers from 1 to 47,814 on pieces of paper which folded and mixed in a box. Then, all the 47,814 Umurenge SACCO members from Huye district were requested to pick their lucky numbers. Those who picked numbers 1-58 were considered to participate in the study because they fell in the calculated sample size for Huye district. The process was repeated for the remaining 7 districts. This sampling strategy was preferred because it eliminated bias among respondents.

The researcher used quantitative data during the research process. The questionnaire was used during primary data collection from the selected Umurenge SACCO members in Southern province. The questionnaire survey was preferred because it collects information from many respondents in a projected time frame. Only close-ended questions were used in the questionnaire because they are considered easy to answer. The researcher used Microsoft Excel and Statistical Package for Social Sciences (SPSS) to analyze data. The analysis was based on both descriptive statistics and inferential statistics.

### **4. Research findings**

This chapter presents and analyses the findings generated from primary data. it can be observed that out of 400 targeted respondents, 298 (74.5%) completed the survey. Inferential analysis (Pearson correlation and multiple linear regression) was also conducted to enable the researcher to generalize the findings to all households in the Southern province.

#### **4.1 Correlation analysis**

A Pearson correlation analysis was conducted to assess the level of association financial inclusion and household income in Rwanda's Southern province. Table 1 shows the matrix for the correlation coefficients generated from the SPSS output.



**Table 1: Correlation coefficients**

Variables	N	AF	FL	AC	HI
Access to affordable finance (AF)	298	1			
Financial literacy (FL)	298	.492**	1		
Access to credit (AC)	298	.312**	.585**	1	
Household income (HI)	298	.259**	.329**	.482**	1

\*\* . Correlation is significant at the .01 level (2-tailed).

**Source:** SPSS Correlation Output, 2023

As Table 1 shows, it can be observed that access to affordable finance (AF) is moderately and positively correlated with household income (HI) in Southern province ( $r=.259$ ,  $N=298$ ,  $p<.05$ ). This indicates that as access to affordable finance changes by one unit, household income (HI) in Southern province also changes by .259 units (25.9%). Similarly, data shows that financial literacy (FL) is moderately and positively associated with household income (HI) in Southern province ( $r=.329$ ,  $N=298$ ,  $p<.05$ ). This suggests that when there is a 1-unit variation in financial literacy, household income (HI) in Southern province also changes by .329 units (32.9%). In the same vein, data further shows that access to credit (AC) was moderately and positively correlated with household income (HI) in Southern province ( $r=.482$ ,  $N=298$ ,  $p<.05$ ). This indicates that household income (HI) in Southern province improves by .482 units (48.2%) in proportion to a unit improvement in access to credit.

#### 4.2 Regression analysis

Multiple linear regression was utilized to assess the effect of access to affordable finance ( $X_1$ ), financial literacy ( $X_2$ ), and access to credit ( $X_3$ ) as predictor variables on household income in Southern province. Additionally, this analysis aimed to quantify the individual contributions of each predictor variable towards household income in the Southern province.

**Table 2: Model Summary**

Model	R	R Square	Adjusted R Square	SE of the Estimate
1	.495 <sup>a</sup>	.245	.238	.394

a. Predictors: (Constant), Access to credit, Access to affordable finance, Financial literacy

**Source:** SPSS regression output, 2023

As Table 2 shows, it is observed that the model generated a combined  $R=.495$  and this indicates that there is a weak positive relationship between financial inclusion and household income in Southern province. Similarly, the adjusted R Square of .238 shows that 23.8% of the variation in household income in the Southern province can be explained by financial inclusion (access to affordable finance, financial literacy, and access to credit).

**Table 3: Analysis of variance (ANOVA<sup>a</sup>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.824	3	4.942	31.837	.000 <sup>b</sup>
	Residual	45.630	294	.155		
	Total	60.453	297			

a. Dependent Variable: Household income

b. Predictors: (Constant), Access to credit, Access to affordable finance, Financial literacy

**Source:** SPSS regression output, 2023

According to Table 3, the probability value (Sig.) of .000 which is less than the .05 level of significance ( $p < .05$ ) shows that the regression model fits the data well and is therefore suitable for explaining the outcomes of the regression analysis.

**Table 4: Regression coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE	Beta		
(Constant)	1.372	.259		5.301	.026
1 Access to affordable finance	.122	.062	.115	1.975	.049
Financial literacy	.018	.072	.017	.249	.803
Access to credit	.268	.038	.435	6.968	.116

a. Dependent Variable: Household income

**Source:** SPSS regression output, 2023

$$Y = 1.372 + \beta_1(.122) + \beta_2(.018) + \beta_3(.268)$$

According to the regression coefficients in Table 4, it can be observed that access to affordable finance contributes up to .122 ( $\beta = .122$ ) or 12.2% of the variation in household income in Southern province. This means that holding other factors constant, an improvement in access to affordable financing improves household income in Southern province by 12.2 percent, and the effect is statistically significant ( $p < .05$ ).

Similarly, financial literacy contributes up .018 ( $\beta = .018$ ) or 1.8% of the variation in household income in Southern province. This indicates that assuming other factors constant, improvement in financial literacy improves household income in Southern province by 1.8 percent, though the effect is not statistically significant ( $p > .05$ ).

Furthermore, access to credit also shows a positive contribution of up to .268 ( $\beta = .268$ ) or 26.8% towards household income in Southern province. This shows that holding other factors constant, an improvement in credit access improves household income in Southern province by 26.8 percent, though the effect is not statistically significant ( $p > .05$ ).

#### 4.3 Hypotheses testing

**Table 5: Hypothesis test results**

Hypothesis description	P-value	Conclusion
<b>H<sub>01</sub>:</b> Access to affordable finance has no significant effect on household income in Rwanda's Southern Province	Sig.=.049, $p < .05$	H <sub>01</sub> is rejected
<b>H<sub>02</sub>:</b> Financial literacy has no significant effect on household incomes in Rwanda's Southern Province	Sig=.803, $p > .05$	H <sub>02</sub> is accepted
<b>H<sub>03</sub>:</b> Access to credit has no significant effect on household income in Rwanda's Southern Province	Sig=.116, $p > .05$	H <sub>03</sub> is accepted

**Source:** SPSS regression output, 2023

In conclusion, access to affordable finance has a significant effect on household income in Southern province. On the contrary, financial literacy and access to credit have no significant effect on household income in Southern province. Therefore, further investigation in different settings is required to determine if financial literacy and access to credit have significant effect on household income.

#### **4.4 Discussion of findings**

The present study aimed to investigate the effect of financial inclusion on household income in Southern province in Rwanda, with a specific focus on Umurenge SACCO. The findings revealed interesting insights into the relationship between access to affordable financial services, financial literacy and access to credit on household income in Southern province in Rwanda. In this section, we will comprehensively discuss the findings in comparison with previous scholarly research, highlight consistencies and inconsistencies, and identify research gaps that warrant further investigation.

##### **4.4.1 Effect of access to affordable financial services on household income**

The first finding of this study reveals a significant positive effect of access to affordable financial services on household income in Rwanda's Southern Province ( $\beta=.122$ ,  $p<.05$ ). This finding aligns with several previous studies that highlight the importance of financial inclusion in enhancing household economic well-being (Duflo, 2017; Cull, Demircuc-Kunt, & Morduch, 2018). The positive relationship between financial access and income suggests that when individuals and households can easily access financial services such as savings, loans, and insurance, they are better equipped to invest in income-generating activities, manage risks, and seize opportunities for economic growth. However, while the current study provides consistent evidence, it's essential to acknowledge that the impact of financial inclusion might vary across different regions and socio-economic contexts (Demircuc-Kunt & Klapper, 2012). Further research could explore how specific types of financial services, such as microloans or savings accounts, contribute to income growth and whether there are variations based on demographic factors.

##### **4.4.2 Effect of financial literacy on household income**

Contrary to the second hypothesis, the study's finding indicates that financial literacy has no significant effect on household income in Rwanda's Southern Province ( $\beta=.018$ ,  $p>.05$ ). This result contradicts some earlier research that suggested a positive association between financial literacy and economic outcomes (Hastings et al., 2013; Lusardi & Mitchell, 2014). One possible explanation for this inconsistency could be related to the measurement of financial literacy; it's plausible that the scale used in this study might not fully capture the nuances of financial knowledge relevant to the local context. Additionally, it's worth considering that other external factors, such as macroeconomic conditions and access to opportunities, might overshadow the influence of financial literacy on income. To address this gap, future studies could delve into the specific financial knowledge areas that are most pertinent to the Southern Province's population and explore whether tailored financial education programs could yield different results.

##### **4.4.3 Effect of access to credit on household income**

The third finding indicates that access to credit has no significant effect on household income in Rwanda's Southern Province ( $\beta=.268$ ,  $p>.05$ ), contradicting expectations and some previous research findings (Karlan & Zinman, 2010; Attanasio & Augsburg, 2016). The lack of significant impact might be attributed to factors such as credit utilization patterns and borrower characteristics. It is possible that households in the region face challenges in effectively utilizing credit for income-generating activities due to limited market opportunities or other structural constraints. To address this contradiction, future studies could explore the intermediary mechanisms through which credit affects income, such as the types of investments made using credit funds and their potential return on investment.

This study offers valuable insights into the relationship between financial inclusion and household income in Rwanda's Southern Province. It shows that access to affordable financial

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services significantly affects household income in Rwanda's Southern Province, while financial literacy and access to credit do not have significant effect. However, there are several areas that warrant further investigation. Firstly, the role of informal financial services, which are often prevalent in developing regions, could be explored to understand how they complement or compete with formal financial access. Secondly, the mediating factors that might explain why financial literacy and credit access did not yield expected effects need deeper exploration. Lastly, a longitudinal study could provide a more comprehensive understanding of how the relationship between financial inclusion and household income evolves over time, considering potential delayed effects.

## 5. Conclusion

The study examined the relationship between financial inclusion and household income in Rwanda's Southern Province. The primary objectives were to investigate the effect of access to affordable financial services, financial literacy, and access to credit on household income in the region.

The findings highlight a positive correlation between access to affordable finance and household income. The presence of favorable conditions for accessing better-priced financial services through Umurenge SACCO indicates the potential for increased household income.

However, it is evident that addressing income disparities requires a comprehensive approach beyond just financial services. Enhancing vocational skills, entrepreneurship opportunities, and targeted income-generating programs emerged as key considerations.

Although satisfactory financial literacy provision was observed, the study found that this did not consistently lead to changes in household income. It was noted that some respondents lacked the understanding to make informed financial choices, necessitating efforts to improve financial decision-making for more consistent impact on income.

Access to credit, despite being generally available, did not consistently correlate with changes in household income. This suggests that other factors play a significant role in influencing income dynamics in the Southern Province.

The study highlights the importance of a multifaceted approach to addressing income inadequacies. While financial inclusion initiatives like Umurenge SACCO can contribute to income growth, they need to be complemented with efforts to enhance skills, diversify income sources, and provide broader economic opportunities.

The key gaps identified include the variability in the impact of financial literacy and access to credit on household income, and the limitations of solely relying on these factors for income improvement.

In terms of contributions, this research emphasizes the nuanced nature of the relationship between financial inclusion and household income. It stresses the need to go beyond conventional strategies and tackle income disparities through a holistic perspective that encompasses education, skill-building, and diverse economic engagement.

For future research, exploring the role of cultural, social, and economic factors in influencing household income would provide a more comprehensive understanding. Additionally, investigating the effectiveness of specific income-generating programs and their integration with financial inclusion initiatives could offer valuable insights into improve sustainable income.

## 6. Recommendations

Based on the research gaps identified, the research proposes the following recommendations:

To financial institutions and cooperatives: Enhance and expand access to affordable financial services through mechanisms like Umurenge SACCO, aiming to provide households in the Southern province with more favorable financing options and potentially boosting their income.

To local authorities and community development organizations: Collaborate to create an enabling environment that encourages diversified income sources within households, thereby helping them to better meet their needs and achieve more financial stability.

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## 8. References

- Anderloni, L., & Carluccio, E. M. (2017). Access to bank accounts and payment services. In *New frontiers in banking services: Emerging needs and tailored products for untapped markets* (pp. 5-105). Berlin, Heidelberg: Springer Berlin Heidelberg.
- Beck, T., Demirgüç-Kunt, A., & Honohan, P. (2019). Access to Financial Services: Measurement, Impact, and Policies. *World Bank Research Observer*, 24(1).
- Beck, T., Demirguc-Kunt, A., & Martinez Peria, M. S. (2020). Reaching out: Access to and use of banking services across countries. *Journal of Financial Economics*, 85(1), 234-266.
- Chow, C. Y. (2020). Financial education in Asia: Patterns and developments. In *Routledge Handbook of Financial Literacy* (pp. 125-144). Routledge.
- Demirguc-Kunt, A., & Klapper, L. (2012). Measuring financial inclusion: Explaining variation in use of financial services across and within countries. *Brookings Papers on Economic Activity*, 1, 279-340.
- Girma, Y. (2022). Credit access and agricultural technology adoption nexus in Ethiopia: A systematic review and meta-analysis. *Journal of Agriculture and Food Research*, 100362.
- Gottschalk, P., & Danziger, S. (2017). Inequality of household income and economic growth: Cross-country evidence. *Journal of Economic Perspectives*, 31(2), 103-124.
- Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial literacy, financial education, and economic outcomes. *Annual Review of Economics*, 5(1), 347-373.



- Johnson, R., & Smith, J. (2018). Personal financial literacy and its impact on consumer decision-making: Evidence from the 2015 National Financial Capability Study. *Journal of Consumer Affairs*, 52(2), 295-313.
- Kim, T. (2019). Income-led growth in Korea Issues, implications, and roles. *Journal of the Korean Welfare State & Social Policy*, 3(1), 21-42
- Kiplimo, J. C., Ngenoh, E., Koech, W., & Bett, J. K. (2018). Determinants of access to credit financial services by smallholder farmers in Kenya. *Journal of Development and Agricultural Economics*, 7(9), 303-313.
- Levine, R. (2020). Finance and growth: Theory and evidence. *Handbook of Economic Growth*, 1, 865-934.
- Martinez, L., Rodriguez, G., & Sanchez, A. (2021). The impact of low-cost accounts on household income. *Journal of Financial Services Research*, 48(1), 85-101.
- Mason, C. L. J., & Wilson, R. M. S. (2020). Conceptualizing financial literacy. *Occasional paper*, 7.
- Meyer, R. L. (2018). Assessing financial inclusion: A framework with international data. *Journal of Development Studies*, 54(4), 757-784.
- Nguyen, T. T., & Patel, R. (2021). Financial inclusion and income growth in South Africa. *Review of Development Economics*, 23(1), 123-141.
- NISR (2020) *Demographic and Health Survey 2019/2020 - Southern province Profile* <https://www.statistics.gov.rw/file/11741/download?token=2VodeSPo>
- Nsengiyumva, E. (2019). *Effects of Savings and Credit Cooperatives on Economic Development: A Case Study of SACCOs in Nyarugenge District (Master's thesis)*. University of Rwanda.
- Nussbaum, M. C. (2000). *Women and human development: The capabilities approach*. Cambridge University Press.
- Smeeding, T. M., & Thompson, J. P. (2019). Inequality of household income and consumption: A reassessment of recent trends. *Journal of Economic Perspectives*, 33(2), 191-212.
- Smeeding, T. M., & Weinberg, D. H. (2021). Toward a uniform definition of household income. *Review of Income and Wealth*, 47(1), 1-24.
- Smith, A., & Brown, K. (2020). Inclusive banking services and household income: A regional analysis. *Journal of Financial Economics*, 37(3), 589-605.
- Thirlwall, A. P. (2019). *Economic growth in an open developing economy: The role of structure and demand*. Edward Elgar Publishing.
- Thompson, M., & Rodriguez, L. (2017). Payment services and household income: A cross-sectional analysis. *Journal of Financial Research*, 44(2), 125-142.
- Van Kerm, P., & Jenkins, S. P. (2019). How does income inequality differ between countries? Evidence from the Luxembourg Income Study Database. *Journal of Income Distribution*, 28(1), 1-35.
- Wang, Q., & Li, Y. (2016). Collateral requirements and household income: The positive effect of lenient criteria. *Journal of Banking and Finance*, 35(4), 101-118.