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From Exclusion to Empowerment: Financial Inclusion as a Catalyst for Socio-economic Development among Rural Youth Entrepreneurs

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Abstract: This study examines how financial inclusion (FNI) influences the socio-economic status and empowerment of rural youth entrepreneurs. Data for the study was collected using a cross-sectional questionnaire survey from 618 rural youth entrepreneurs across seven wards in the Iramba District of Tanzania. Subsequently, structural equation modelling (SEM) was employed to assess the impact of FNI on the socio-economic outcomes of rural youth entrepreneurs. The study findings reveal a significant positive effect of FNI on rural youth economic empowerment, social capital and networking, access to healthcare and social services, and overall standard of living. The results provide actionable insights for policymakers, financial institutions, and development agencies aiming to foster entrepreneurship in rural areas. It highlights the importance of creating youth-tailored financial products, improving digital infrastructure, and enhancing financial literacy to boost the socio-economic impact of FNI in rural areas.

Keywords: Financial Inclusion, Rural Youth Entrepreneurs, Socio-economic Resilience, Economic Empowerment

Introduction

Financial inclusion (FNI) has become a critical focus for policymakers and development practitioners worldwide. This is especially important for youth entrepreneurs in rural and underserved communities where access to financial services is limited. Approximately 16% of the global population, amounting to 1.2 billion people, are young individuals aged 15 to 24 (UNESCO, 2020), with 67% of this population (nearly 800 million) residing in rural or semi-urban areas (United Nations, 2021). Given this profile, promoting FNI for aspiring rural youth entrepreneurs holds significant potential to drive socio-economic transformation in developing countries and local communities. Through improved access to formal financial services, rural youth entrepreneurs can secure the capital necessary to start and expand their businesses, invest in agribusiness, manage financial risks, and enhance their livelihoods. This, in turn, fosters entrepreneurship, generates employment opportunities, stimulates economic growth, and reduces poverty (Lotto, 2018; Ndanshau & Njau, 2021; Israel et al., 2022). FNI, fundamentally, involves providing individuals and businesses with affordable and accessible financial products and services, such as savings, credit, insurance, payments, and social security schemes (Kuada, 2021; Ndanshau & Njau, 2021). It enables individuals and businesses to access relevant and timely financial services, including banking, loans, equity, financial literacy programs, and financial transactions (Lelo & Israel, 2025; Dar & Ahmed, 2021).

In emerging economies, rural youth entrepreneurs face significant disadvantages in accessing financial opportunities. In Sub-Saharan Africa, for example, only 30% of young people in rural areas have access to formal financial services (World Bank, 2021). A major barrier to FNI in these regions is the lack of formal financial infrastructure, with limited or non-existent physical access to financial institutions (Kuada, 2021; Mohammed et al., 2020). This challenge is further compounded by limited financial and digital literacy, making it difficult for rural youth to utilize digital financial platforms, such as mobile banking (Osabutey & Jackson, 2024; Mpofu, 2024). Moreover, high transaction costs, stringent collateral requirements, cultural barriers, and the lack of financial products specifically designed to meet the needs of rural youth further impede their ability to secure loans and credit from formal financial institutions (Ndanshau and Njau, 2021; Siwandeti & Israel, 2024). Besides, most rural youth also rely on unstable income sources, including small-scale farming, informal trade, and casual labour, which offer minimal financial security (Ahmed et al., 2014; Solanki and Chhikara, 2024). Together, these challenges reinforce cycles of exclusion, limiting rural youth's potential to attain financial independence and socio-economic development. Consequently, rural youth struggle to break free from poverty, with 93.6% engaged in vulnerable employment (Finscope, 2023). As a result, many rural youths turn to informal and often unreliable financial alternatives, such as moneylenders, community savings groups, family or friends, Village Community Banks (VICOBA), and mobile money services.

In response to these challenges, the Tanzanian government has implemented various programs aimed at enhancing youth FNI and promoting socio-economic development. Key among these initiatives is the National Financial Inclusion Framework 2023-2028, which seeks to expand access to affordable financial services and products across all societal segments, including rural youth (Finscope, 2023). Additionally, the Youth Entrepreneurship Facility (YEF), launched in 2015, provides financial and technical support to youth entrepreneurs to help them establish and grow their businesses (URT, 2018). Another critical initiative, the Youth Enterprise Development Fund (YEDF), was established in 1994 to provide financial assistance and support to young entrepreneurs. Through YEDF, Tanzanian youth can access loans, grants, and business development services to start and expand their ventures (Mori, 2019). In conjunction with these efforts, various financial literacy programmes educate youth on key financial concepts, banking services, budgeting, and savings. More importantly, agent banking, point-of-sale systems, stand-alone ATMs, and mobile money services such as M-Pesa, Airtel Money, and Tigo Pesa have significantly enhanced FNI among Tanzanian youth, allowing them to engage in business activities and connect to wider markets (Dar and Ahmed, 2021; Lotto, 2018). These services and programs are empowering youth by providing essential financial skills and accessible solutions, including mobile banking, social security schemes, money transfers, and bill payments. These initiatives have the potential to transform the financial landscape in rural areas, making it easier for youth entrepreneurs to access services and participate in the economy.

Despite the availability of various microfinance services and programs, achieving FNI remains a complex challenge, especially for rural youth entrepreneurs (Alamineh, 2020; Ahmed and Jianguo, 2014). Statistics indicate that rural youth are among the most financially excluded groups in Tanzania. A survey by the Alliance for Financial Inclusion (2022) revealed that approximately 51% of rural youth lack access to both formal and informal financial services, with only 8% relying on informal sources. This is notably lower than the 76% FNI rate observed among the adult population (Finscope, 2023). Further, income levels among rural youth are below the national average, with a median income of 40,000 TZS compared to the national median of 50,000 TZS (Finscope, 2023). Additionally, only 20% of rural youth save with formal financial institutions (Mori, 2019; Chakraborty and Abraham, 2021). This exclusion perpetuates socio-economic disadvantages, prompts urban migration, and limits pathways for upward socio-economic mobility. Without access to formal financial services, rural youth face significant obstacles in starting or expanding businesses, which restricts income generation and hinders economic growth. This exclusion exacerbates poverty, reinforces cycles of economic dependency, and increases vulnerability by limiting the ability to afford health services or invest in education. Consequently, this makes rural youth rely on unstable income sources, such as subsistence farming or casual labour, which perpetuates their socio-economic challenges (Kuada, 2021; Lotto, 2018).

While previous studies highlight the importance of FNI in promoting socio-economic growth and reducing poverty in foreign and developed countries (Sethy et al., 2023; Ozili et al., 2023; Nandru et al., 2021), limited research has specifically examined its role in empowering rural youth entrepreneurs in low and middle-income countries. Existing research in this context predominantly focuses on FNI in urban areas or among adult entrepreneurs (Ahmed and Jianguo, 2014; Lotto, 2018; Ndanshau and Njau, 2021) and the determinants of FNI among rural youth (Mori, 2019; Ndanshau and Njau, 2021). This focus has created a gap in understanding the potential socio-economic impact of FNI on aspiring young entrepreneurs in rural contexts. This study introduces a novel approach, examining how FNI empowers rural youth to achieve greater economic stability and contribute to broader socio-economic well-being in their communities. Understanding these effects is crucial for policymakers, financial institutions, and development organizations in designing policies and interventions to foster inclusive economic growth and entrepreneurship, especially in rural areas where access to formal financial services and economic opportunities is often limited. The study contributes to the existing body of literature on the dynamics of FNI and socio-economic empowerment, with a particular focus on Tanzania, a middle-income country.

This article is structured as follows. In particular, this introduction section provides insights into the research problem and objectives. This is followed by the literature review in Section Two, which synthesizes existing studies, theoretical perspectives, and research hypotheses. Section Three covers the research methodology, detailing the research design, sampling, data collection, and analysis approach. Research findings and the discussion of analysed data and key results are presented in Section Four. Finally, Section Five summarizes the research findings, provides concluding remarks, suggests managerial and theoretical implications, and outlines directions for future research.

Literature Review

Financial Inclusion Services in Rural Areas: An Overview

Financial services encompass a wide range of offerings that cater to various needs and requirements of individuals, businesses, and communities. The types of financial services offered can vary based on geographical location, economic conditions, regulatory frameworks, and technological advancements. The sector comprises a diverse spectrum of services, ranging from formal, regulated institutions to informal, community-based practices (Chakraborty and Abraham, 2021; Finscope, 2017). The duality of formal and informal financial services has profound implications for FNI, economic stability, and socio-economic growth in both developed and developing economies. In many cases, individuals and communities utilize a combination of formal and informal services to meet their financial needs, creating a financial ecosystem that adapts to local realities (Amir and Sabri, 2023; Mishra et al., 2024).

Formal financial services are typically provided by licensed institutions such as banks, credit unions, and insurance companies (Lotto, 2018; URT, 2018). These services are characterized by adherence to regulatory frameworks, structured documentation, and adherence to recognized financial standards. They offer a wide array of products, including banking services (deposits, loans, credit cards), retirement and pension services, microfinance services (microloans and savings), insurance (life, health, and property insurance), investment opportunities, digital financial services (mobile banking, mobile payments, and digital lending) and capital markets (Finscope, 2023). The formal financial sector plays a critical role in mobilizing savings, allocating capital, and facilitating risk management on a macroeconomic scale. Unlike informal financial services, formal financial services are typically associated with safety, security, and consumer protection due to their regulatory oversight. However, they may also be inaccessible to a significant portion of the global population, particularly those living in remote or economically marginalized areas (Zaremohzzabieh et al., 2016; Lal, 2019).

Informal financial services operate outside the oversight of regulatory authorities (URT, 2018; Forkuoh et al., 2015). These services are often deeply rooted in local traditions, cultural practices, and community trust networks. Examples include informal savings groups, village community banks (VICOBA), moneylenders, rotating savings and credit associations (ROSCAs), and loans from family or friends. Although informal financial services provide a lifeline for underserved populations, they may lack the safeguards and institutional support of formal financial institutions. They play a crucial role for individuals and businesses unable to access formal financial services due to barriers such as geographical distance, lack of collateral, or limited financial literacy (Schreiner, 2000; Finscope, 2023).

Financial Inclusion and Rural Youth Entrepreneurial Activities

In Tanzania, youth are defined as individuals aged between 15 and 35 years (URT, 2022). In 2022, Tanzania's youth population totalled 21,312,411, accounting for 34.52% of the country's total population (URT, 2022), with 59.3% (12,647,509) residing in rural areas. Improving FNI among this group is crucial to support their entrepreneurial activities, enhance income generation, and bolster economic development (Abdelghaffar et al., 2023; Chowa et al., 2015). Entrepreneurship among youth embodies the mindset, characteristics, and behaviours that drive individuals to initiate business ventures (Senou and Manda, 2021; Zaremohzzabieh et al., 2016). It reflects their readiness to identify opportunities, take calculated risks, innovate, and create value within their local communities. Studies reveal that agribusinesses, particularly small-scale farming, are the predominant activity for many rural youths, contributing to food security, job creation, and increased rural incomes (Bouichou et al., 2021; Mahuwi & Israel, 2023; Yami et al., 2019). In some rural areas, youth entrepreneurs leverage natural beauty and cultural heritage to establish eco-friendly tourism ventures, offering unique experiences that attract visitors and generate revenue for local communities (Guzman et al., 2020; Obiora and Nwokorie, 2018). This entrepreneurial drive extends to revitalizing traditional crafts and artistic practices, producing handmade products that cater to niche markets (artisanal and craft enterprises). Furthermore, Alamineh (2020) identified small-scale and micro-enterprises, such as the selling of goods and services, as popular and profitable ventures among rural youth.

Studies reveal the pivotal role of FNI in empowering rural youth by providing the financial resources necessary for engaging in entrepreneurial activities (Amir and Sabri, 2023; Mishra et al., 2024). Access to financial services, such as savings accounts, credit facilities, and insurance, enables rural youth to start, sustain, and expand their entrepreneurial ventures, even amidst economic challenges. These services offer more secure, regulated options that help rural entrepreneurs mitigate risks associated with unpredictable income sources. Access to affordable credit and savings tools not only drives business growth but also supports asset accumulation, investment in agriculture, trade, livestock keeping, and the operation of artisanal and craft enterprises (Senou and Manda, 2021; Lal, 2019). Formal financial resources enhance rural youth entrepreneurs' autonomy, decision-making power, and sense of self-reliance, raising their status within communities. This empowerment fosters innovation, encouraging youth to explore and invest in new business ideas (Singh and Singh, 2023; Ozili et al., 2023). Moreover, FNI initiatives that incorporate financial literacy training equip rural youth with essential skills such as budgeting, investment planning, and debt management, further strengthening their business acumen and resilience (Guzman et al., 2020). Rural youth entrepreneurial activities, when facilitated through access to financial services, hold the potential to revitalize rural economies, promote self-sufficiency, and inspire a new generation of change-makers.

Empowerment Theory

Empowerment theory provides a foundational framework for understanding how individuals and communities gain control over their lives, influence their environments, and achieve socio-economic progress. The theory posits that empowerment is a multi-dimensional process that enables individuals to attain autonomy, self-efficacy, and a sense of agency (Rappaport, 1981). It emphasizes that empowerment is context-specific, relational, and occurs across individual, organizational, and community levels. In this study, empowerment theory is used to explain how access to financial resources and inclusion initiatives can drive socio-economic change, particularly for disadvantaged youth in rural areas. FNI, by offering tools and opportunities for financial autonomy, aligns directly with empowerment theory's core tenet of fostering control and capability among rural youth (Mohammed et al., 2020; Nandi et al., 2022). In this case, FNI is regarded as a pathway to economic empowerment (EEP). Based on empowerment theory, it is suggested that when rural youth gain access to financial services, they acquire not only the resources but also the confidence and self-efficacy needed to invest in business ventures, expand economic activities, and make informed financial decisions. This process can enhance their socio-economic status and contribute to community-level growth, thus fulfilling the theory's propositions of individual and community empowerment (Rappaport, 1981; Sethy et al., 2023). This theoretical foundation allows for a comprehensive examination of how FNI acts as a catalyst for empowerment, fostering socio-economic resilience and growth among rural youth entrepreneurs.

Socio-Economic Impact of Financial Inclusion

The socio-economic impact of FNI is multifaceted, extending beyond immediate economic gains to foster broader EEP, social cohesion, and quality of life improvements. FNI, involving the broadening of access to formal and informal financial services among rural youth, holds significant implications for their entrepreneurial journeys and for supporting the rural economies in which they operate (Kuada, 2021; Lal, 2021; Nandi et al., 2022). With its transformative power, FNI can enhance economic opportunities, reduce inequality, and stimulate local economies. Empirical studies establish that FNI fosters EEP by providing youth entrepreneurs access to credit, savings, and insurance services, which are crucial for starting, sustaining, and expanding business activities (Nandi et al., 2022; Panakaje et al., 2023). This empowerment often creates a ripple effect, as financially secure youth build assets, reinvest in local economies, create employment opportunities, and increase their income (Amir and Sabri, 2023). These outcomes enhance their economic stability and independence. Such improvements, moreover, uplift rural standards of living (SLV), equipping youth with resources to meet basic needs, improve housing, and support their families' educational goals, thereby promoting socio-economic mobility. Consequently, FNI plays a role in poverty alleviation by reducing rural-urban disparities and mitigating migration pressures to urban centres (Mishra et al., 2024).

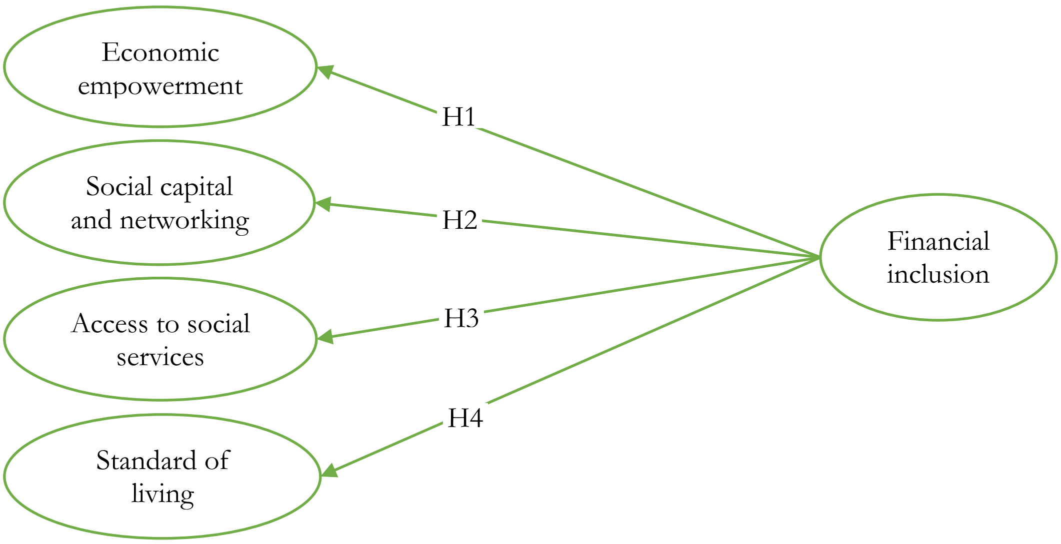
FNI also enhances social capital and networking (SCN) among rural youth entrepreneurs, empowering them with increased visibility and credibility to connect with peers, mentors, and community leaders (Nwokorie, 2018; Panakaje et al., 2023). With access to financial resources and related services, rural youth gain opportunities to build networks that foster resilience and social capital within rural communities. This networking potential, often facilitated by financial literacy programs and group-based savings schemes, strengthens connections and collaborative support systems among rural youth. Moreover, financial stability and social connectedness improve access to healthcare and social services (AHS), as financially empowered individuals are better positioned to afford medical services and insurance plans and contribute to health-based community initiatives (Panakaje et al., 2023). Thus, FNI can be seen as a catalyst for a healthier, more connected society, enabling rural youth entrepreneurs to enhance their well-being and social standing while promoting a more equitable distribution of resources and opportunities across their communities. As rural youth gain both the confidence and financial means to pursue entrepreneurial endeavours, they often experience a shift in socio-economic status and self-perception (Kuada, 2021; Lal, 2021), aligning with empowerment theory's focus on individual-level empowerment (Rappaport, 1981). In light of these theoretical and empirical perspectives, the following hypotheses are proposed:

H1. FNI positively influences EEP.
H2. FNI positively influences SCN.
H3. FNI positively influences AHS.
H4. FNI positively influences SLV.

Research Conceptual Model

The proposed research model, illustrated in Figure 1, is grounded in empirical evidence from empirical studies. It examines the relationship between FNI and the socio-economic status of rural youth entrepreneurs. The model posits that FNI, measured through financial literacy, proximity, availability, affordability, and usage of financial services, leads to significant improvements in EEP, SCN, AHS, and overall SLV among rural youth. This framework suggests that FNI plays a multi-dimensional role, transforming economic and social dynamics within rural communities and empowering youth to act as agents of local development.

Figure 1. **Research Framework**



Source: Figure by the author

Methods

Research Design and Study Area

This study employs a cross-sectional quantitative research design, which is well-suited for gathering numerical data from a large sample to generate statistically reliable results and establish associations between study variables at a single point in time (Saunders et al., 2019). Using this design, quantitative data was collected from rural youth entrepreneurs in Iramba District, located in the Singida region of Tanzania, providing a snapshot of their current FNI status and socio-economic development. Iramba District was selected for this study for two main reasons. First, the district represents a rural context where youth entrepreneurship is gaining prominence, and FNI initiatives are becoming increasingly important (Finscope, 2023). Second, Iramba has a comparatively high youth population, accounting for 24% of its total population, which is substantial relative to other districts in the region (URT, 2022). Besides that, the Singida region as a whole has the lowest level of FNI in the country (53%), compared to other regions (Finscope, 2023). These factors make Iramba District a particularly relevant area for studying the impact of FNI on socio-economic development among rural youth.

Sampling and Data Collection

The present study employed a multi-stage sampling approach, combining purposive and random sampling, to select the study area and primary unit of observation. In the first stage, purposive sampling was used to select the Singida region, one of Tanzania's 31 administrative regions, as the study area due to its notably low level of FNI (Finscope, 2023). In the second stage, Iramba District, one of the seven administrative districts of Singida region was chosen based on its relatively high youth population (URT, 2022). In the third stage, seven wards were randomly selected from the 20 wards within Iramba District. These were Mgongo, Mtekente, Mtoa, Ndago, Ntwike, Shelui and Urughu. Finally, in the fourth stage, a simple random sampling method was applied to select individual participants (rural youth entrepreneurs) for the survey. During this stage, a structured questionnaire was physically and proportionally distributed to 689 rural youth, drawn from a list of 32,501 rural youth across the selected seven wards in Iramba District, between June and September 2024. This approach ensured a representative sample of rural youth, enabling the capture of diverse perspectives on their FNI status and socio-economic development. Out of the 689 questionnaires distributed, 618 were returned, yielding a response rate of 89.7%, which is sufficient for robust statistical analysis and enhances the validity of the study's findings. Table 1 presents the sample profile of the rural youth entrepreneurs included in this study.

Table 1. **Sample Characteristics**

Variables	**Mean**	**Std. Dev.**
Age (Years)	24.66	9.15
Gender (Male = 1, Female = 0)	0.57	0.23
Marital status (married = 1; otherwise = 0)	0.24	0.09
Ward:	*Frequency (%)*	
Mgongo	91(14.72%)	
Mtekente	85(13.75%)	
Mtoa	83 (13.43%)	
Ndago	92 (14.89%)	
Ntwike	86 (13.92%)	
Shelui	89 (14.40%)	
Urughu	92 (14.89%)	
Level of education:	*Frequency (%)*	
Primary Education	168 (27.18%)	
Secondary School	178 (28.80%)	
Diploma	113 (18.28%)	
Tertiary education	93 (15.05%)	

Variables	Mean	Std. Dev.
Bachelor Degree +	66 (10.68%)	
Revenue generating activity:	*Frequency (%)*	
Crop farming	318 (51.46%)	
Agriculture and livestock	594 (96.12%)	
Casual labour	203 (32.85%)	
Traders - non-agricultural products	309 (50.00%)	
Traders - agricultural products	297 (48.06%)	
Service providers	186 (30.10%)	
Formal sector salaried	93 (15.05%)	
Others	176 (28.48%)	

Source: Table by the author

Measurement Items

Each construct in this research was operationalized using validated item scales from previous studies. FNI was measured using a 5-item scale adapted from Lal (2019) and Nandru and Rentala (2020), capturing dimensions related to accessibility to financial services and inclusion frameworks. EEP was assessed with a 5-item scale developed by Senou and Manda (2021), Kuada (2021) and Nandi et al. (2022). SCN employed a 3-item scale adapted from Nwokorie (2018) and Panakaje et al. (2023), focusing on networking diversity. AHS was measured using a 3-item scale from Chowa et al. (2015) and Alamineh (2020), emphasizing accessibility and affordability of social services. Lastly, SLV was assessed with a 5-item scale adapted from Abdelghaffar et al. (2023) and Alamineh (2020), reflecting the general well-being of rural youth. Table 2 presents the measurement items used in this study. To ensure content and face validity, the selected items underwent expert review, with feedback from professionals in economics, finance, accounting, and socio-economic development. This validation process helped refine the scales, ensuring the items accurately represented each construct and resonated with the target population. All items were rated on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).

Table 2. **Measurement Items**

Constructs and indicators	References
Financial inclusion (FNI) Fni1. Proximity to financial services Fni2. Availability of financial services in areas of domicile Fni3. Financial literacy Fni4. Affordability of financial services Fni5. Usage of financial services	Lal (2019), Nandru and Rentala (2020).
Economic empowerment (EEP) Eep1. Increased income levels through entrepreneurial activities Eep2. Creation of new job opportunities within the enterprise Eep3. Ability to invest in long-term business assets Eep4. Equitable access to economic opportunities Eep5. Contribution to local economic growth	Senou and Manda (2021), Kuada (2021) and Nandi et al. (2022)
Social Capital and Networking (SCN) Scn1. Engaging in local business networks and opportunities Scn2. Participation in community groups and socio-economic activities Scn3. Relationships with financial institutions and community leaders	Nwokorie (2018). Panakaje et al. (2023)
Access to Healthcare and Social Services (AHS)	

Constructs and indicators	References
Ahs1. The ability to affordability healthcare services for routine and emergency care needs Ahs2. The ability to afford social protection services for both business and family needs Ahs3. The ability to afford essential social services, such as education and housing expenses	Chowa et al. (2015) and Alamineh (2020)
Standard of living (SLV)	
Slv1. The quality of living conditions (e.g., safety, nutrition, and sanitation) Slv2. Stable income source or secure employment Slv3. Decreased pressure on rural youth to migrate to urban areas Slv4. Lowered overall poverty levels among rural youth entrepreneurs	Abdelghaffar et al. (2023) and Alamineh (2020)

Source: Table by the author

Common Method Variance (CMV)

Given that data were collected through self-reported questionnaires, there may be systematic biases that could affect the relationships among constructs related to FNI and socio-economic development. To mitigate this risk, several strategies were implemented. First, confidentiality of responses was ensured to encourage honest answers. Second, the order of questions was randomized to reduce response consistency bias. Finally, Harman's single-factor test was conducted to assess the extent of CMV in the data. The analysis indicated that a single factor accounted for 43.33% of the overall variance. Based on the recommendations of Podsakoff et al. (2003), this result suggests that CMV is not a significant concern in the study. This supports the validity of the relationships between the study variables examined.

Data Analysis

The data analysis approach utilized confirmatory factor analysis (CFA) and structural equation modelling (SEM) to comprehensively investigate the relationships among the underlying study constructs. CFA was applied initially to validate the identified constructs and their corresponding items, ensuring that the observed data fit the theoretical model and confirming the reliability and validity of the measurement model. Following this, SEM was employed to test the hypothesized relationships between FNI and socio-economic outcomes. SEM is particularly useful for examining complex relationships (both direct and indirect) among latent variables measured by observable variables (Hair et al., 2020). In the context of this study, SEM was used to assess the direct effect of FNI on socio-economic development, with each construct operationalized through a set of observed and latent variables.

Findings

CFA and Measurement Model

The proposed model was tested with the results of CFA, which yielded satisfactory model fit indices, with a Chi-square (χ^2) value of 155.337, $p < 0.000$, degrees of freedom (df) = 84, and a χ^2/df ratio of 1.849. Other model fit indices, as shown in Table 3, including the Adjusted Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation

(RMSEA), Standardized Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Root Mean Residual (RMR), Tucker–Lewis Index (TLI), Incremental Fit Index (IFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), and Probability of Close Fit (Pclose), all exhibit marginally acceptable fit statistics that exceed commonly accepted thresholds. The indices confirm that the model adequately fits the data and reliably represents the relationships among the constructs. The internal reliability of the model's theoretical construct was assessed using composite reliability (CR) and Cronbach's alpha (α), both of which were above the recommended thresholds of 0.7, indicating consistent internal reliability. All factor loadings for all indicators exceeded the threshold of 0.5, and AVE values were above 0.5 for all constructs, demonstrating acceptable convergent validity. Discriminant validity was confirmed using the Fornell-Larcker criterion, whereby each construct's AVE exceeded the squared correlations with other constructs, supporting adequate discriminant validity (see Table 4). These analyses further confirm that the hypothesised model was tenable and had a good fit to the data (Fornell and Larcker, 1981; Hair et al., 2020).

Table 3. **Measurement Model Estimates**

Constructs and items	**λ**	**α**	**CR**	**AVE**
Financial Inclusion (FNI)		0.815	0.856	0.549
Fni1.	0.717			
Fni2.	0.882			
Fni3.	0.792			
Fni4.	8.808			
Fni5.	8.751			
Economic empowerment (EEP)		0.874	0.920	0.697
Eep1.	0.841			
Eep2.	0.870			
Eep3.	0.831			
Eep4.	0.656			
Eep5.	0.855			
Social Capital and Networking (SCN)		0.802	0.837	0.631
Scn1:	0866			
Scn2:	0.855			
Scn3:	0.833			
Access to healthcare and social services (AHS)		0.796	0.836	0.630
Ahs1.	0.812			
Ahs2.	0.744			
Ahs3.	0.754			
Standard of living (SLV)		0.778	0.886	0.660
Slv1.	0.776			
Slv2.	0.762			
Slv3.	0.830			
Slv4.	0.776			

Notes: GFI = 0.931, AGFI = 0.902, RMSEA = 0.056, RMR = 0.026, CFI = 0.971, NFI = 0.940, IFI =0.972, TLI = 0.944 Pclose = 0.234.
Source: Table by the author

Inter-constructs Correlation Analysis

The inter-construct coefficients in Table 4 reveal moderate to strong positive correlations among the study constructs. Specifically, SLV shows a moderate positive correlation with

AHS ($r = 0.346$, $p < 0.01$) and FNI ($r = 0.432$, $p < 0.01$), while demonstrating a strong positive correlation with SCN ($r = 0.560$, $p < 0.01$) and EEP ($r = 0.509$, $p < 0.01$). AHS exhibits a moderate positive correlation with SCN ($r = 0.309$, $p < 0.01$) and FNI ($r = 0.384$, $p < 0.01$), along with a strong positive correlation with EEP ($r = 0.584$, $p < 0.01$). SCN has strong positive correlations with FNI ($r = 0.659$, $p < 0.01$) and a moderate correlation with EEP ($r = 0.440$, $p < 0.01$). In addition, FNI has a strong correlation with EEP ($r = 0.507$, $p < 0.01$). Importantly, none of the correlation coefficients exceeds 0.7, with the highest being between SCN and FNI ($r = 0.659$), suggesting that multicollinearity among variables is not an extreme issue (Pallant, 2020).

Table 4. **The Discriminant Validity**

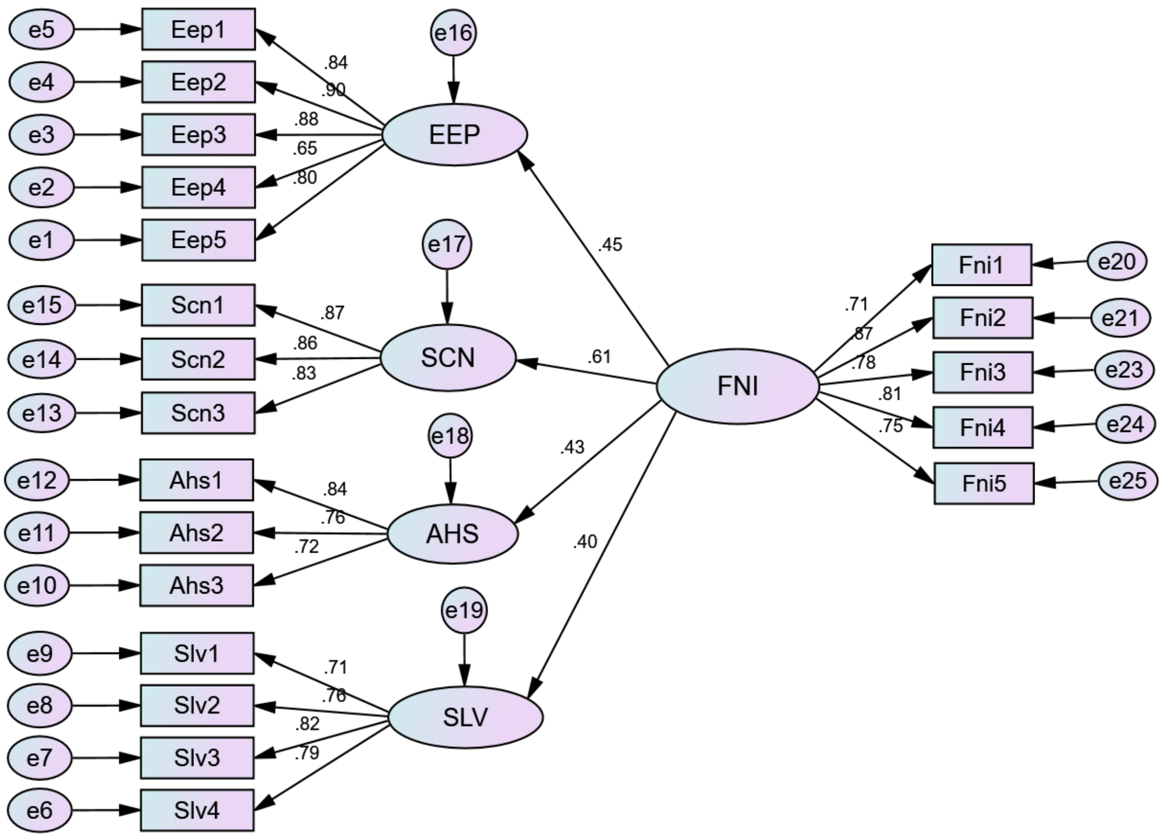
	MSV	ASV	SLV	AHS	SCN	FNI	EEP
SLV	0.314	0.220	*0.810*				
AHS	0.341	0.176	0.346**	*0.794*			
SCN	0.434	0.259	0.560**	0.309**	*0.794*		
FNI	0.434	0.256	0.432**	0.384**	0.659**	*0.741*	
EEP	0.341	0.263	0.509**	0.584**	0.440**	0.507**	*0.835*

Notes: Diagonal values in italics are the square root of AVE and off-diagonal values are inter-construct correlations, Correlation is significant at the 0.01 level (2-tailed).
Source: Table by the author

Results of Hypothesis Testing

Figure 2 and Table 5 show the results of standardised path coefficients for the SEM employed to examine the potential socio-economic effects of FNI among rural youth entrepreneurs. The results of the hypotheses testing reveal that FNI has a significant positive effect on diverse socio-economic dimensions of rural youth. Specifically, the positive significant effect of FNI on EEP ($\beta = 0.450$, $p < 0.001$) and SCN ($\beta = 0.606$, $p < 0.001$) suggests that access to financial services enhances youth's economic independence and fosters stronger social networks. Likewise, FNI positively influences AHS ($\beta = 0.431$, $p < 0.001$), supporting the role of FNI in improving access to essential healthcare and social services for rural youth. In addition, the effect of FNI on SLV ($\beta = 0.399$, $p < 0.001$) is significant, indicating that FNI contributes to improved SLV among this group. The research results statistically confirm that all proposed model hypotheses (H1, H2, H3, and H4) are supported. Moreover, the model fit indices demonstrate a good fit with the data, as shown by the following values: $\chi^2/df = 2.341$, GFI = 0.931, AGFI = 0.902, RMSEA = 0.056, RMR = 0.026, CFI = 0.971, NFI = 0.940, IFI = 0.972, TLI = 0.944, and Pclose = 0.234. These results suggest that the model adequately captures the relationships among the constructs (Hair et al., 2020).

Figure 2. **Standardised Path Coefficients for the Structural Model**



Source: Figure by the author

Table 5. **The Standardized Regression Path Coefficients and Significance Levels**

Hypotheses	Hypothesised Variables	Estimate	S.E.	C.R.	P	Decision
H1	FNI → EEP	0.450	0.252	6.952	***	Supported
H2	FNI → SCN	0.606	0.089	6.619	***	Supported
H3	FNI → AHS	0.431	0.116	6.743	***	Supported
H4	FNI → SLV	0.399	0.082	6.952	***	Supported

Notes: ***p ≤ 0.001
Source: Table by the author

Discussions

The research examined the socio-economic impact of FNI on rural youth entrepreneurs. The findings support the proposed hypotheses of the research model, as illustrated in Figure 2 and detailed in Table 5. In particular, the findings highlight a significant positive direct effect of FNI on EEP among rural youth entrepreneurs. These findings align with previous empirical studies (Lal, 2021; Nandi et al., 2022) and the theoretical foundations of empowerment theory (Rappaport, 1981), which suggest that FNI enhances financial autonomy and economic decision-making power among rural youth. For rural youth, access to formal and informal financial services, such as credit, community savings groups, and insurance—enables them to make strategic business investments, manage risks, plan for growth, and tackle business challenges effectively. Similar empirical studies by Nandru et al. (2021) and Nandru and Rentala (2020) establish that improved FNI empowers rural youth entrepreneurs to expand their businesses, which leads to job creation within their communities and drives income generation. This in turn reduces unemployment and contributes to local economic growth. The finding echoes empowerment theory's emphasis on access to external resources as key to empowerment. Importantly, FNI also helps reduce gender disparities by providing rural youth, particularly women, with equal access to financial services (Senou and Manda, 2021). This access enables them to start or expand businesses and contribute to household incomes, further enhancing their economic resilience.

The findings further indicate a significant positive effect of FNI on SCN among rural youth entrepreneurs. Aligned with empowerment theory, FNI fosters self-efficacy among rural youth, empowering them to engage in community activities and development initiatives. Consistent with the findings of Amir and Sabri (2023) and Mishra et al. (2024), such engagement expands their social networks and strengthens community ties, contributing to social trust, cohesion, and overall well-being. In addition, access to FNI promotes networking and collaboration with other entrepreneurs, which can lead to the exchange of ideas, partnerships, and business growth. This argument aligns with Chakraborty and Abraham (2021) and Paaskesen and Angelow (2015), who assert that FNI, whether formal or informal, goes beyond providing essential financial services to act as a catalyst for social empowerment. It enhances youths' abilities to interact, collaborate, and build relationships with peers, mentors, and financial institutions. With access to financial services, rural youth entrepreneurs can participate actively in both formal and informal networks, expanding their reach, sharing knowledge, and creating new business opportunities.

Nevertheless, a significant positive association was revealed between FNI and rural youth entrepreneurs' AHS. In line with prior studies (Panakaje et al., 2023; Sethy et al., 2023; Singh and Singh, 2023), this study establishes that FNI enables youth entrepreneurs to manage income and savings more effectively, invest in preventive health schemes, and thus enhance their ability to afford healthcare and living expenses. According to Nandru et al. (2021), FNI tools, such as social security schemes and insurance products, help rural youth and their families meet health-related expenses and protect against unforeseen events, such as illness or natural disasters. In addition, empirical studies by Nandru et al. (2021) and Amir and Sabri (2023) suggest that financial services, like microcredit and savings accounts, reduce economic vulnerability, empowering rural youth to afford essential expenses, including education and housing, without undue financial strain. Supported by empowerment theory, which emphasizes individuals' control over their lives and decision-making (Rappaport, 1981), FNI thus acts as a critical lever, equipping rural youth with access to essential financial tools and resources. Increased FNI not only supports individual health and well-being but also contributes to community resilience by fostering healthier, economically active young people who can engage more fully in the social and economic life of their communities.

Lastly, as proposed, the study revealed a significant positive effect of FNI on SLV. Some previous studies, including those by Kuada (2021) and Panakaje et al. (2023), have similarly found that FNI significantly improves socio-economic status. Access to financial services, such as microloans, financial literacy, and insurance, empowers rural youth to make independent financial decisions and invest in income-generating activities. Similarly, Mishra et al. (2024) and Lal (2019) opined that FNI enables rural youth entrepreneurs to diversify their economic activities, engaging in agribusiness, livestock rearing, and trade, thereby reducing dependency on subsistence agriculture and ensuring smoother operations of the same. In the end, this protects rural youth from financial shocks and reduces the need to migrate to urban areas in search of better economic opportunities. Grounded in empowerment theory, it can be argued that FNI breaks down barriers to essential resources, allowing youth entrepreneurs to build capital, sustain socio-economic activities, and generate a steady income. Consequently, this contributes directly to an improved standard of living, as rural youth progressively improve their socio-economic conditions, support their families, and bolster local economies (Abdelghaffar et al., 2023; Alamineh, 2020).

Conclusions

This study highlights the transformative potential of FNI as a catalyst for socio-economic development among rural youth entrepreneurs, grounded in empowerment theory. The findings suggest that fostering FNI removes barriers of exclusion, enabling rural youth to actively participate in economic activities, make autonomous financial decisions, and build sustainable livelihoods. FNI is shown not merely as a tool for individual economic advancement but as a broader mechanism for poverty reduction, local economic growth, and social equity. As rural youth gain access to credit, savings, insurance, financial literacy, social safety nets, and digital financial platforms, they are better equipped to manage socio-economic risks, invest in business growth, generate local employment, and cover essential healthcare and living expenses. Empowerment theory underscores this process, wherein FNI serves as a catalyst that significantly enhances self-efficacy, decision-making power, and control over resources, thereby empowering rural youth entrepreneurs to contribute meaningfully to their communities. Integrating empowerment-focused financial strategies, therefore, supports rural youth autonomy, fosters inclusive economic growth, and advances socio-economic development. By building socio-economic resilience and reducing dependency, FNI not only promotes sustainable development in rural areas but also strengthens the overall well-being and economic participation of rural communities.

The study holds significant managerial implications for financial institutions, policymakers, and development agencies committed to promoting socio-economic development among rural youth entrepreneurs. For financial institutions, the study recommends designing flexible, youth-friendly financial products, such as low-interest microloans, accessible savings accounts, and affordable insurance options, specifically tailored to meet the unique needs of rural youth. These products can help rural youth manage personal and business-related expenses, invest in growth opportunities, and protect against socio-economic risks. In addition, microfinance institutions, in collaboration with rural development agencies, should prioritize financial literacy programs customized for rural youth. These programs could cover key areas like budgeting, strategic investment, savings, credit and debt management, and understanding financial products. Such knowledge can foster sustainable financial habits, improve cash flow management, enhance financial confidence, and reduce vulnerability to financial challenges. Encouraging rural youth to join local savings groups or cooperative societies could further enhance their financial support systems, providing valuable networking and collaboration opportunities. These networks can also serve as critical sources of financial information and funding for small-scale projects and investments. For policymakers, the study suggests creating and reinforcing supportive regulatory frameworks that encourage broader financial outreach in rural areas. Such frameworks could ultimately stimulate inclusive economic growth and entrepreneurship, fostering a more resilient local economy.

Although the study highlights the potential of FNI to empower rural youth entrepreneurs, it has some limitations. First, the study is context-specific, focusing only on rural youth entrepreneurs in the Iramba district of the Singida region in Tanzania. This focus limits the generalizability of the findings to other rural areas with different socio-economic contexts, infrastructure, financial systems, cultural settings, and levels of access to financial services. Future research could address this limitation by expanding to multiple rural areas, allowing for an examination of how diverse economic and cultural contexts influence the relationship between FNI and youth empowerment. Second, the study employs a cross-sectional quantitative research design, capturing data at a single point in time. This approach restricts the ability to capture in-depth insights and the long-term effects of FNI on socio-economic development, which often take time to manifest. Future studies could use a longitudinal research design to assess the sustained impact of FNI on the socio-economic development of rural youth entrepreneurs. Integrating qualitative methods with quantitative approaches would also enable researchers to gather detailed perspectives on the personal and community impacts of FNI. Finally, future research could explore gender-focused issues, assessing whether FNI impacts male and female youth entrepreneurs differently and examining barriers unique to young women and men in rural areas.

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