

Financial Inclusion of Refugees: The Role of Trust and Financial Literacy

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Abstract

This research examines how financial literacy and trust influence financial inclusion among refugees in the Kampala district of Uganda, and explores whether trust mediates the relationship between financial literacy and financial inclusion. Using a quantitative cross-sectional approach, we selected a sample of 399 refugees from a population of 107,763 in Kampala. Data were collected using structured instruments based on a five-point Likert scale and analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM). Findings indicate that both financial literacy and trust significantly enhance financial inclusion. Financial literacy also positively affects trust in financial institutions, with trust partially mediating the financial literacy–financial inclusion relationship. These results support theories of financial literacy and trust in explaining financial inclusion. Conducted solely among refugees, its findings may not be fully generalizable to other marginalized groups, such as women or youth. Additionally, the cross-sectional, quantitative design limits deeper insights into the dynamics of trust and financial literacy. This research is among the first to explore the mediating role of trust in the relationship between financial literacy and financial inclusion within a refugee context, thereby contributing to the understanding of financial inclusion in Uganda.

Key words: Financial inclusion, financial literacy, trust, refugees, Uganda

Introduction

Financial inclusion, defined as access to and use of a broad range of high-quality and impactful financial services for unserved and underserved populations (Demirguc-Kunt *et al.*, 2018), is critical for fostering economic development (Xu, 2020). The lack of access to financial services is viewed as a hindrance to the socio-economic growth of unserved and underserved populations in developing economies (Neaime & Gaysset, 2018). In that regard, financial inclusion initiatives emphasize that all people need access to formal financing to meet daily financing needs such as payments, savings, borrowing and insurance (Ozili, 2020). Access to finance is important for overcoming income inequality (Mindra *et al.*, 2017). Accordingly, the World Bank (2021) focuses on four main aspects of financial inclusion: access, usage, quality and impact. Despite global efforts to enhance financial inclusion, 1.4 billion people remain unbanked, limiting their ability to escape poverty and contribute to economic growth (Demirgüç-Kunt *et al.*, 2018). From 2011 to 2017, global account ownership rose from 51% to 69% of adults, yet significant gaps persist,

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particularly in developing economies where marginalized groups face barriers to accessing formal financial services (Demirgüç-Kunt *et al.*, 2018). In the Ugandan context, the Finscope Survey (2024) found that more than half of Ugandan adults had access to accounts with formal financial institutions. Moreover, the Finscope Survey (2024) reported that financial inclusion stood at 81% in Uganda. However, despite the increase in financial inclusion, refugees in Uganda remain largely underserved (BFA Global, 2020).

To foster financial inclusion of refugees, the Bank of Uganda authorized the use of refugee identification cards for accessing financial services in 2018 (International Labour Organisation, 2022). Additionally, several initiatives such as the Financial Inclusion for Refugees [FI4R] project and the Refugee Innovation, Self-reliance, and Empowerment [RISE] (BFA Global, 2019) were implemented to deepen and broaden refugee financial inclusion in Uganda. However, despite these efforts towards financial inclusion of refugees, uptake of formal financial services remains very low among Ugandan refugees. According to the 2020 financial inclusion for refugees report, only 17% of refugees were served by formal financial institutions while 41% use informal financing mechanisms such as village savings and loan associations (VSLAs), SACCOs, merry-go-rounds, and rotating and savings credit associations (ROSCAs). Furthermore, those without any access to financial institutions amounted to 42% (BFA Global, 2020). According to Hansen and Zikusooka (2018), only 15% of refugees saved with formal financial institutions while 35% saved with informal ones. Similarly, in 2018, only 7% of the refugees in Uganda obtained credit from formal financial institutions while 57% borrowed from informal sources.

In that regard, financial inclusion among refugees in Uganda remains significantly low. This may be attributed to several factors, including refugees' reliance on informal financial services such as VSLAs and ROSCAs, limited awareness and information about formal financial services, distrust in financial institutions, perceived ineligibility and concerns about the security of personal information (Hansen & Zikusooka 2018; Hassan, 2022). Refugees are of particular interest in this study because they are economically active participants in Uganda's local economy, with financial needs similar to those of other members of society. In 2017, 43% of refugees were actively participating in the labor market, with 12% involved in informal employment and 31% running their own businesses (Hansen & Zikusooka, 2018). While studies in Uganda have explored social networks (Bongomin *et al.*, 2018), digital finance (Ebong, 2021), and financial self-efficacy (Mindra *et al.*, 2017) in relation to financial inclusion, the interaction of financial literacy and trust has received limited scholarly attention, particularly among refugees. Extant literature defines financial literacy as the knowledge, skills, attitudes, and behaviors necessary for making prudent financial decisions (Ozili, 2020; Mindra *et al.*, 2017). Trust on the one hand, refers to the consumer's belief in the ability, integrity, benevolence, and honesty of the service provider (Mayer *et al.*, 1995). Financial literacy theory (Ozili, 2020) suggests that financial education enhances financial inclusion, while trust theory (Mayer *et al.*, 1995) emphasizes the role of perceived institutional trustworthiness. However, no studies have examined whether trust mediates the relationship between financial literacy and financial inclusion within a refugee context, thereby highlighting a gap in existing literature.

Against this backdrop, we sought to investigate how the components of financial literacy and trust influence refugee financial inclusion Kampala district, Uganda. Specifically, the study examined whether trust mediates the relationship between financial literacy and financial inclusion. By

addressing this gap, the study provides insights for policymakers and financial institutions in designing targeted interventions that improve refugees' access to and use of formal financial services, fostering their economic integration and resilience.

Theoretical Review

The current research adopts a multi-theoretical perspective to examine how financial literacy and trust interact to influence financial inclusion of refugees in Uganda. First, Ozili's (2020) financial literacy theory was adopted to anchor the nexus between financial literacy and financial inclusion. The theory posits that financial education fosters financial inclusion. That the citizenry becomes financially literate through financial education. As people become financially literate through financial education, they are more likely to participate in formal financial services. In the Ugandan refugee context, where only 17% use formal financial institutions (BFA Global, 2020), financial literacy is critical for navigating complex financial systems. Refugees often rely on informal mechanisms like village savings groups due to limited awareness of formal banking services (Hansen & Zikusooka, 2018). Financial literacy enables refugees to budget, save, and understand financial risks, thereby fostering confidence to engage in formal financial products. Additionally, the theory argues that when people become financially literate, they can also participate in investment and formal mortgage markets. Furthermore, Ozili (2020) adds that financial literacy creates self-sufficient people who can have stable personal incomes. These individuals can use financial literacy to distinguish between wants and needs, manage their budgets, save, and undertake retirement planning (Ozili, 2021). However, the theory assumes access to financial education, which may not be readily available in refugee settlements, where resources are scarce and priorities focus on immediate survival needs (Hassan, 2022). Additionally, cultural and linguistic barriers may limit the effectiveness of financial education programs, as standardized approaches may not address refugees' diverse backgrounds. Despite these limitations, the theory provides a robust framework for understanding how knowledge drives financial inclusion in marginalized contexts.

Secondly, in this study, the trust theory (Mayer *et al.*, 1995) explains the trust and financial inclusion nexus. The theory of trust posits that people subscribe to institutions that are perceived as competent, benevolent, reliable, capable and possessing integrity. Hence, financial inclusion can be improved when financial services providers are trustworthy. For refugees in Uganda, trust in financial institutions is often undermined by experiences of displacement, discrimination, and unfamiliarity with formal systems (Hansen & Zikusooka, 2018). In support of the theory of trust, seminal studies have advanced that firms become successful when they incorporate trust in their service value chains (Rousseau *et al.*, 1998; McAllister, 1995). According to Mayer *et al.* (1995), institutions must demonstrate benevolence (doing well to consumers); competence (delivering on what is promised); integrity (acting justly and fairly); ability (possessing the skills to deliver); and reliability (consistently fulfilling promises). For example, refugees may distrust banks due to concerns about privacy or past experiences of institutional betrayal in their home countries. Trust theory suggests that financial institutions must demonstrate fairness, reliability, and competence to build confidence among refugees, encouraging account ownership and usage. However, the trust theory is limited by its focus on institutional trust without fully accounting for the socio-cultural factors that shape refugees' perceptions, such as community-based trust in informal systems like ROSCAs (BFA Global, 2020). Moreover, building trust requires consistent transparent interactions, which may be challenging for financial institutions operating in resource-

constrained environments. Nonetheless, trust theory is highly relevant for explaining barriers to financial inclusion among refugees. Notably, based on the foregoing discussion, financial literacy and trust theories complement each other in explaining financial inclusion of refugees. Financial literacy equips refugees with the knowledge and skills that shape behaviour and attitude towards financial products, while trust fosters confidence in using these products from formal institutions. For instance, a refugee knowledgeable about savings accounts may still avoid banks if trust is lacking due to perceived risks (Kiwanka & Sibindi, 2023).

Hypothesis Development

Financial literacy and Financial Inclusion

Financial exclusion remains an overarching global problem. Demirgüç-Kunt *et al.* (2018) assert that two billion people are financially excluded due to lack of access to financial accounts. To this end, 1.7 billion people were found to be without a bank account as of the year 2017 (Demirgüç-Kunt *et al.*, 2018). Despite efforts to reach the underserved, the microfinance sector has indicated that the majority of borrowers lack the capacity to utilize the acquired loans. Hence the call to link financial literacy with financial inclusion to solve the financial exclusion dilemma (Mindra *et al.*, 2017). Serving the marginalized, therefore, calls for scaling up financial literacy to increase knowledge and awareness of financial products (Bongomin *et al.*, 2018). Financial education enhances rational financial decision-making (Kasizi, 2021). Arguably, financial inclusion is considered key to achieving sustainable development (Klapper *et al.*, 2013). Thus, it is vital for governments to identify the potential factors driving financial inclusion. Several scholars have examined the nexus between financial inclusion and financial literacy. Jungo *et al.* (2021) and Sanistasya *et al.* (2019) explored how financial literacy and financial inclusion influence SME performance in Kalimantan. Also, Mpaata (2021) argued that financial literacy mediates the relationship between social impact and saving behavior. Therefore, based on the preceding discussion, it is hypothesised that;

H1 Financial literacy positively influences financial inclusion of refugees in the Kampala district, Uganda.

Trust and Financial Inclusion

Extant research has found that trust accelerates economic growth (Xu, 2020). In business, trust is argued to enhance economic performance by assuring consumers that firms will deliver on their promises (Kabahinda & Mwesigwa, 2023). From a financial institution's perspective, clients are more willing to use financial services when they believe the financial institution will honor its commitments (Koivunen & Tuorila, 2015). At the societal level, trust lubricates the social system and promotes cooperation among people to achieve outcomes such as full financial inclusion (Labarca & Mujica, 2022). Trust has been found to positively influence financial contracts by encouraging participation in the stock markets and the usage of formal financial services (Xu, 2020). Expected returns often depend on trust in financial agreements. Although banks are crucial drivers of economic prosperity, Demirgüç-Kunt *et al.* (2018) found that 60% of households in developing countries still lack bank accounts. Low-income individuals may avoid saving with banks due to limited trust in these institutions (Bachas *et al.*, 2017). Similarly, insurance acquisition decisions rely on trust in the provider's willingness to reimburse upon the occurrence of a loss. (Kiwanka & Sibindi, 2023). Several scholars have also established a positive relationship between trust and financial inclusion at the micro level using Global Findex data (Xu,

2020; Ghosh, 2021). Furthermore, Bongomin *et al.* (2020), found that trust partially mediates the relationship between mobile money adoption and financial inclusion. According to Kiwanuka and Sibindi (2023), individuals are more likely to trust an insurance provider when they possess adequate knowledge about its insurance products and services. As such, distrust, and consequently financial exclusion arises when consumers lack such knowledge, leading them to distrust financial services providers (Garg & Agarwal, 2014). Based on the foregoing, the current study hypothesizes that;

H2 Trust influences financial inclusion of refugees in the Kampala district, Uganda.

Financial literacy can enhance trust in financial institutions by increasing individuals' understanding of financial products and reducing uncertainty (Kiwanuka & Sibindi, 2023). As such, knowledge about banking processes such as transparency in fees and loan repayment terms, can mitigate distrust (Garg & Agarwal, 2014). In Uganda, where refugees often lack exposure to formal financial systems, financial literacy programs can build confidence in institutions seen as reliable and fair (BFA Global, 2020). Thus, we hypothesize that:

H3 Financial literacy positively influences trust in financial institutions by refugees in the Kampala district, Uganda.

Although literature directly examining the mediating role of trust in the financial literacy-financial inclusion nexus is limited, trust may still mediate this relationship, as financial literacy alone may not be sufficient without confidence in financial institutions (Bongomin *et al.*, 2020). For instance, a financially literate refugee may understand savings accounts but avoid using them if trust in banks is low due to perceived risks (Kiwanuka & Sibindi, 2023). In Uganda, where refugees face barriers such as limited information, trust can bridge the gap between financial knowledge and actual engagement with formal services (Hassan, 2022). However, while the roles of trust and financial literacy have been acknowledged, research has not explored how financial literacy and trust interact to influence financial inclusion. Therefore, this research aims to establish how components of financial literacy and trust influence financial inclusion of refugees in the Kampala district, Uganda. Thus, we hypothesize that:

H4 Trust mediates the influence of financial literacy on financial inclusion of refugees in the Kampala district, Uganda.

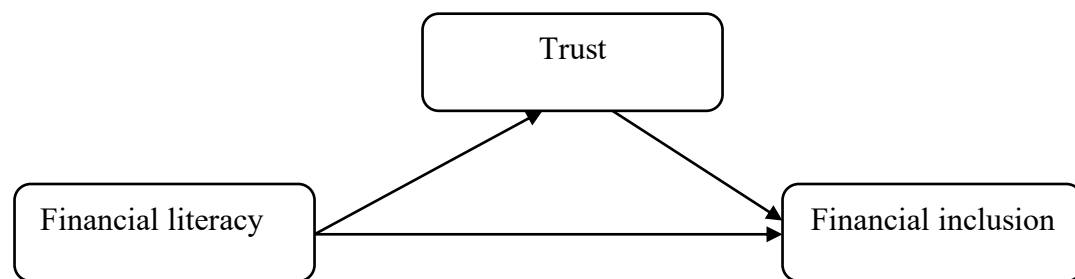


Figure 1. Conceptual framework

Source: Authors' conceptualisation

Methods

This study adopted a cross-sectional design to collect quantitative data at a specific point in time to address the study objectives. This approach was selected because it allows for the collection of comprehensive data at a single point in time (Saunders *et al.*, 2016). The cross-sectional design facilitated the capture of refugees' trust perceptions and financial behaviours at a single point in time. However, this approach is limited in its ability to establish causality due to the absence of temporal data (Hair *et al.*, 2019). The study population comprised 107,763 refugees in Kampala district who accessed financial services from formal financial institutions (UNHCR, 2020). Consequently, the findings may have limited external validity for refugees not engaged with formal financial services, potentially leading to an overestimation of financial inclusion levels (Saunders *et al.*, 2016).

A sample of 399 refugees from Kampala district was determined using Yamane's (1973) formula, $[n = N / 1 + N (e)^2]$ where (N) is the population size and (e) is the margin of error. We applied a 5% margin of error and a 95% confidence level. A total of 284 responses were returned in a response rate of 71%. This response rate is considered sufficient for producing reliable results as suggested by Amin (2005). To prevent potential non-response bias, follow-up efforts were undertaken through reminders. Nevertheless, non-response could potentially affect generalizability. Simple random sampling without replacement was used to select the sample. Randomness was ensured by assigning each refugee a unique identifier and using a random number generator to select participants, thereby minimizing selection bias within the sampling frame. Structured 5-point Likert scale items of strongly disagree to strongly agree were employed to capture refugees' subjective opinions regarding the study variables. This scale has been used in social science research due to its simplicity, versatility, and clarity (Likert, 1932; Hair *et al.* 2019).

Informed consent was obtained from the participants to be part of the research. As suggested by Hair *et al.* (2019), robustness tests were performed on the data. Specifically, we tested for both data validity and reliability. Reliability was assessed using composite reliability ($CR \geq 0.7$), as recommended by Hair *et al.* (2019). Convergent validity was evaluated using average variance extracted ($AVE \geq 0.5$), and discriminant validity was confirmed via the Heterotrait-Monotrait (HTMT) ratio ($HTMT < 0.85$) (Henseler *et al.*, 2015). Additionally, multicollinearity was checked using variance inflation factors ($VIF < 5$), confirming the absence of issues with correlated predictors. The diagnostics are presented in section 4. The measurement of the study's constructs was grounded in prior research. Financial inclusion was operationalised in terms of access, usage and quality as used in studies by Bongomin *et al.* (2017); Xu, (2020); Ozili (2018). Financial literacy was defined through behaviour, knowledge, skills and attitude, adopted from Bongomin *et al.* (2017); Ozili (2021); Trust was measured through indicators of integrity, reliability, and credibility, adopted from Bongomin *et al.* (2020); Xu, (2020); Baganzi and Lau (2017). Table 1 indicates the measurement variables.

Table 1. Measurement of variables

Variable	Measurement item
Financial Inclusion	The saving products offered by the financial institution meet my requirements (FIQ1).
	The loan product offered by the financial institution meets my requirements (FIQ2).
	I feel good about my decision to use financial services (FIU1).
	I can comfortably use my account at any time I need to access my account (FIU2).
	I can do transactions on my account without any difficulties (FIU3).
	I will continue to use financial services in the near future (FIU4).
Trust	I can recommend people to use financial services (FIU5).
	If I need a financial service I will go to a financial institution (FIU6).
	The financial institution is fair in its dealings in its (TRC1).
	I believe that the financial institution will give me credit when in need (TRC4).
	I have no fear keeping my money with a financial institution (TRI5).
	The financial institution sticks to its promise (TRR1).
Financial Literacy	The financial institution does not discriminate among its customers (TRR3).
	The financial institution meets my financial expectation (TRR5).
	I believe that saving is necessary (FLS1).
	I am capable of creating a personal budget. (FLS2).
	I am knowledgeable about the features, costs and risks of financial services (FLS3).
	I can make informed financial decisions (FLS4).
	I have a positive attitude towards financial services (FLS5).

Source: Developed by the authors

Empirical Findings

Diagnostic Results

We performed diagnostic tests to detect potential data bias that could confound the study's reliability. Accordingly, the data were tested for composite reliability and various types of validity (content, construct, and discriminant) as well as multicollinearity as shown in Tables 2 and 3. For reliability tests, we adopted Cronbach's alpha (α) coefficient, using a cutoff of 0.7 (Hair *et al.* (2019). The Heterotrait-monotrait (HTMT) was used to assess discriminant validity (Voorhees *et al.*, 2015), while average variance extracted (AVE) was computed based the on guidelines by Henseler *et al.* (2015). This enabled us to measure the degree to which items of a construct share variance, indicating that the measurement items adequately capture their respective constructs. Content validity was established through expert review by three academics specializing in financial inclusion and a pilot test with 30 refugees in Kampala, ensuring that measurement items aligned with the theoretical definitions of financial literacy, trust, and financial inclusion (Saunders *et al.*, 2016). Discriminant validity and multicollinearity results are presented in Table 3. Diagnostic tests revealed all the study variables to be above 0.70 threshold and remained below the upper limit of 0.95. Furthermore, convergent tests had AVE values above the 0.5 cutoff.

Additionally, multicollinearity was not a concern, given that variance inflation factors (VIFs) returned values less than 5 (Hair *et al.*, 2019).

Table 2. Reliability and Validity results

Variables	Composite Reliability	Average Variance Extracted (AVE)	Content Validity Index (CVI)
Financial Literacy	0.898	0.582	0.838
Trust	0.910	0.669	0.872
Financial Inclusion	0.8836	0.548	0.932

Source: Authors' own estimation

Table 3. Collinearity and discriminant validity

Variables	Heterotrait-monotrait ratio (HTMT)	Variance Inflation Factors (VIF)
Financial literacy <-> Financial inclusion	0.605	1.485
Trust -> Financial Inclusion	0.812	1.000
Financial literacy -> Trust	0.665	1.485

Source: Authors' own estimation

Sample Characteristics

The demographic results indicated that 55% of the respondent refugees were male and 45% were female. The largest age group was 20–29 years (43.5%), followed by 30–39 years (30.2%), 40–49 years (20.6%), and those above 50 years (5.7%). Furthermore, most of the refugees were married (43.5%). In terms of education, the majority had completed secondary education (42.4%), followed by those with university degrees (27.9%) and primary education (9.2%). The demographic results concur with the United Nations High Commission for Refugees UNHCR (2020) survey, which reported that more refugee men (53%) accessed formal financial services compared to women (47%). Additionally, the UNHCR (2020) survey found that the majority of the financially included refugees (56%) were aged 35–40 years. Lastly, 78% of financially included refugees had attained secondary education and higher. Accordingly, the sample in this study can be considered a fair representation of financially included refugees in Uganda.

Correlational analysis

Using zero-order correlation, we estimated the relationships among financial literacy, trust and financial inclusion as depicted in Table 4. The findings showed that financial literacy positively relates to financial inclusion ($r = 0.539$, $p < 0.01$). Suggesting that improvements in financial literacy are followed by improvements in insurance inclusion among refugees in Kampala district, Uganda. Additionally, the results showed trust and financial inclusion to be positively related ($r = 0.788$, $p < 0.01$). Implying that greater trust in financial institutions is associated with higher financial inclusion. Furthermore, the correlation between financial literacy and trust was also positive and significant ($r = 0.571$, $p < 0.01$). These correlations support the potential mediating role of trust in the financial literacy and financial inclusion relationship. Theoretically trust is positioned to bridge the gap between knowledge and action (Mayer *et al.*, 1995; Ozili, 2020). Financial literacy theory suggests that knowledge reduces uncertainty, thereby enhancing trust in financial institutions (Kiwanuka & Sibindi, 2023), while trust theory asserts that confidence in

institutional reliability encourages financial participation (Bongomin *et al.*, 2020). In line with Hair *et al.* (2019), a variable that is significantly correlated with both the independent and dependent variables qualifies as a candidate for mediation analysis. Thus, the strong and significant correlations among financial literacy, trust, and financial inclusion provide theoretical and empirical justification for investigating trust as a mediator in the financial literacy–financial inclusion relationship.

Table 4. Correlation results

	Financial Literacy	Trust	Financial Inclusion
Financial Literacy	1.000		
Trust	0.571**	1.000	
Financial Inclusion	0.539**	0.788**	1.000

** Significant Correlations at the 0.01 level.

Source: Authors' own estimation

Structural modelling

In this research, we aimed to determine the effect of financial literacy and trust on financial inclusion. Specifically, we sought to determine whether trust mediates the relationship between financial literacy and financial inclusion. PLS-SEM was employed to estimate the hypothesised relationships. It was found that financial literacy ($\beta = 0.131$; $p < 0.0001$) impacts financial inclusion of refugees in Kampala district, Uganda. Besides, the study findings revealed that trust has a significant positive impact ($\beta = 0.713$; $p < 0.0001$) on financial inclusion of refugees in the Kampala district, Uganda. Additionally, financial literacy significantly and positively influences trust in financial institutions among refugees in the Kampala district of Uganda ($\beta = 0.571$; $p < 0.0001$). Notably, the results revealed that trust partially mediates the relationship between financial literacy and financial inclusion ($\beta = 0.408$; $p < 0.0001$). Overall, the structural equation modelling (SEM) results shows that financial literacy and trust, both directly and indirectly, explain 63.3% of the variance in financial inclusion. Figures 2 and 3 present the SEM results. Hair *et al.* (2019), suggest that an R^2 value above 0.26 reflects a substantial impact of the endogenous variables on the dependent variable. Accordingly, the findings confirm that financial literacy and trust are strong predictors of financial inclusion in this model. The model was also assessed for effect size. According to Hair *et al.* (2019), the effect size (f^2) indicates the magnitude of the observed effect. The results showed that financial literacy has an effect size of 0.031 on financial inclusion and 0.485 on trust. Furthermore, trust demonstrated a larger effect size ($f^2 = 0.933$) on financial inclusion. These findings, summarized in Tables 5 and 6, confirm that trust plays a significant mediating role in the financial literacy–financial inclusion nexus. Figure 2 illustrates the direct relationships between financial literacy, trust, and financial inclusion, along with factor loadings showing the strength of measurement items on their constructs. Figure 3 highlights the indirect effect of financial literacy on financial inclusion via trust.

Table 5. Hypothesis results

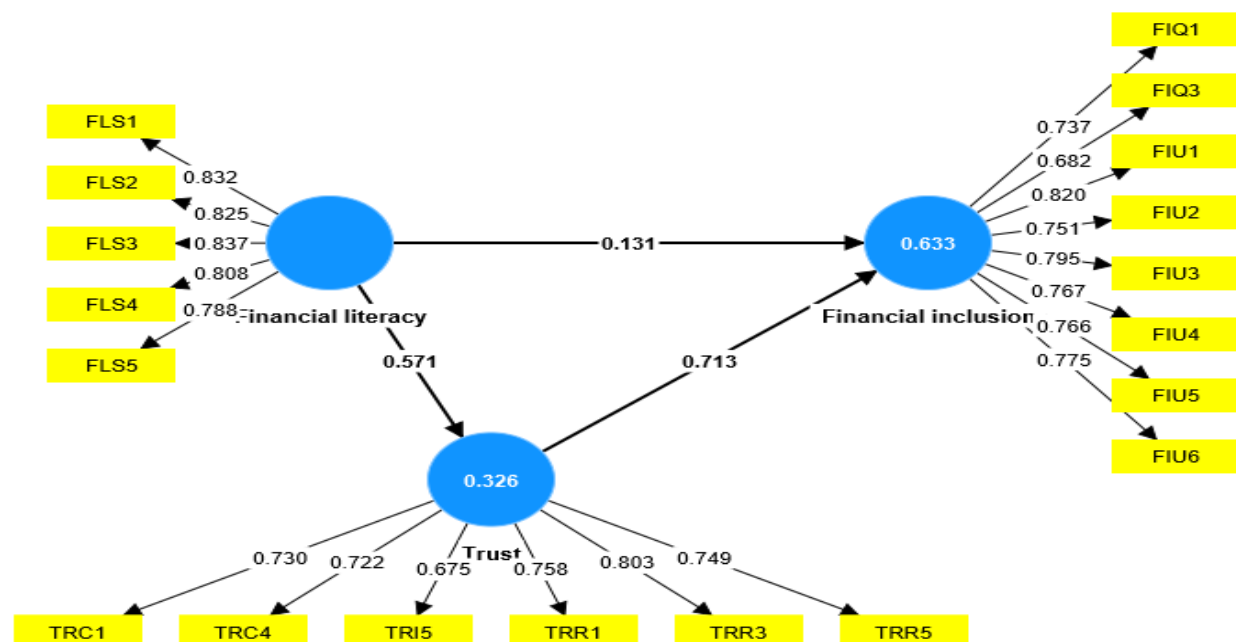
Hypothesised path	Path coefficient	Standard dev.	t-values	P values	Decision
Financial Literacy -> Financial Inclusion	0.131	0.057	3.940	0.010	Supported
Trust -> Financial Inclusion	0.713	0.045	12.634	0.000	Supported
Financial Literacy -> Trust	0.571	0.039	13.526	0.000	Supported
Financial Literacy -> Trust -> Financial Inclusion	0.408	0.034	8.884	0.000	Supported

Source: Authors' own estimation

Table 6. Predictive relevancy and effect size

Variables	R-square	Adjusted R-square	f-square
Financial Literacy	0.633	0.630	
Trust	0.326	0.342	
Financial Literacy -> Financial Inclusion			0.031
Financial Literacy -> Trust			0.485
Trust -> Financial Inclusion			0.933

Source: Authors' own estimation

**Figure 2.** PLS-SEM Algorithm with direct effects and factor loadings

Source: Authors' own estimation

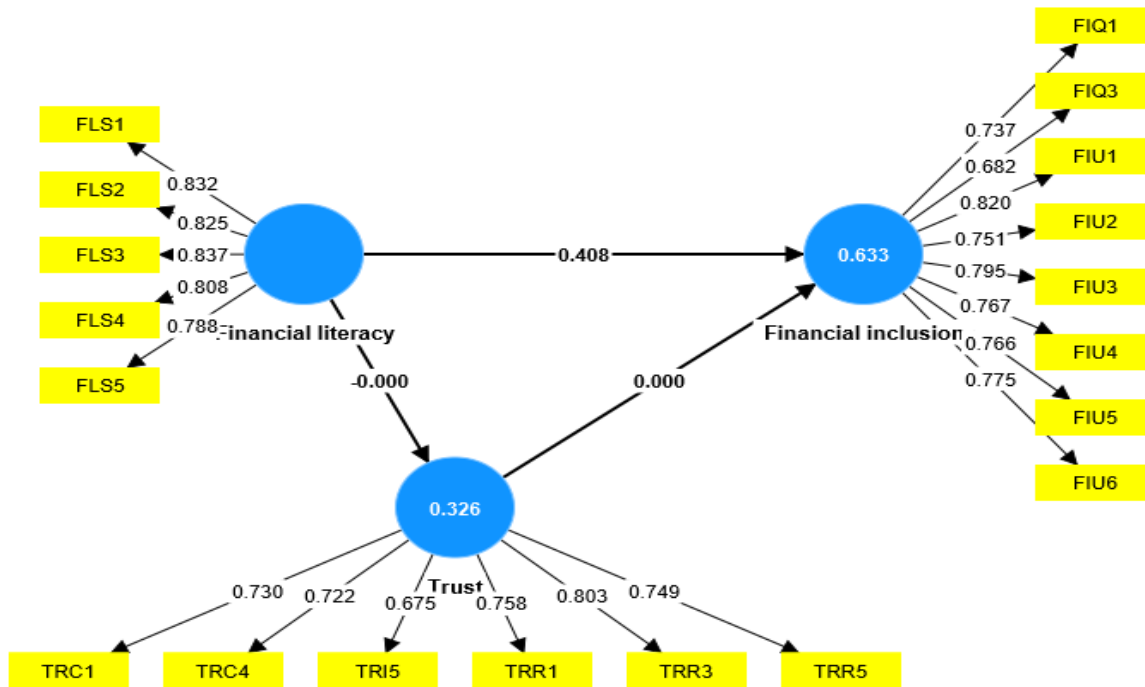


Figure 3. PLS-SEM Algorithm with indirect effects

Source: Authors' own estimation

Discussion of Findings

In this research, we aimed to determine the influence of financial literacy and trust on the financial inclusion of refugees in Kampala district, Uganda. The study tested four hypotheses, all of which were supported by the data. The findings revealed that financial literacy is significantly and positively associated with financial inclusion. These results align with Nankozzi (2022) who found that financially literate individuals are more likely to participate in financial markets due to their understanding of financial matters. These results suggest that when a refugee believes in the importance of saving and possess the ability to prepare and adhere to a personal budget, they are better able to control unnecessary expenditures. Accordingly, they can have a portion of their income to save and benefit from interest earned through financial institutions. This positive financial behaviour reinforces their confidence in financial decision-making and encourages continued use of formal financial services. Similarly, the results suggest that when a refugee is knowledgeable about the characteristics, risks and costs of financial products, they are more likely to use formal financial products and services. Furthermore, refugees who possess the skills necessary for informed decision-making are better able to manage transactions with ease. A refugee who holds a positive attitude towards financial services and expresses interest in using formal financial institutions is more likely to access useful and affordable financial products. The findings agree with Bongomin *et al.* (2017) who demonstrated that financial literacy enhances financial inclusion among the poor in Uganda. They also agree with the studies by Mindra *et al.* (2018) and Ozili (2021) which showed that financial literacy can improve the usage of formal financial services. Our research has confirmed the existence of a significantly positive relationship between financial literacy and financial inclusion.

The findings support the financial literacy theory (Ozili, 2020), which advances that knowledge, skills and attitudes toward financial products enhance engagement with formal financial systems.

In the context of refugees in Kampala, financial literacy entailing the ability to budget, understand financial risks, and maintain a positive attitude toward financial services facilitates informed financial decision-making. This in turn, increases the likelihood of using savings and loan products from formal financial institutions. These findings agree with Ozili's (2020), who asserts that financial education fosters participation in formal financial markets by equipping individuals with the tools to manage finances effectively. Furthermore, the results indicate a positive and significant relationship between trust and financial inclusion. This suggests that refugees who have confidence and believe that these financial institution act in their best interests, are more likely to open up accounts and access the much-needed credit to boost their businesses. The results also imply that as people's confidence and trust increases in the formal financial institutions, so does the uptake and utilization of the financial services. Therefore, when financial institutions are open and fair in their dealings, refugees are more likely to entrust them with their savings. Similarly, financial institutions that are dependable and stick to their promises, foster deeper trust among refugees. Additionally, when financial institutions do not discriminate among its customers, refugees feel a sense of belonging, which further promotes the use of formal financial products and services.

These results are in line with Sanneh *et al.* (2024) who found that individuals tend to lose trust in financial institutions due to negative past experiences. Similarly, Xu, (2020) found lack of trust to deter usage of financial services. Further, the results are in line with Ghosh (2021), who found trust to have a significant positive bearing on ownership and usage of bank accounts. On the contrary, Sun and Angelina (2022) reported that trust does not significantly influence financial inclusion. Nonetheless, our results align with scholars such Bongomin *et al.* (2020) who found trust to significantly influence financial inclusion. Moreover, the finding that trust has a strong positive effect on financial inclusion aligns with trust theory (Mayer *et al.*, 1995), which emphasizes that confidence in an institution's integrity, reliability, and competence encourages engagement with its services. In the context of refugees, trust in financial institutions, reflected in perceptions of fairness and reliability reduces fears of discrimination or loss of savings, encouraging account ownership and usage. This finding supports Mayer *et al.*'s (1995) assertion that trustworthy institutions foster participation by mitigating perceived risks.

Notably, this research establishes that trust mediates in the relationship between financial literacy and financial inclusion, thereby supporting, hypothesis H4. Our research makes a novel contribution to knowledge by demonstrating that financial literacy alone is insufficient to drive financial inclusion among refugees. Financial institutions must instil trust in the refugees to foster usage of formal financial services. Our model showed that trust is a significant mediator in this relationship. Additionally, the results indicated that the direct effect of financial literacy on financial inclusion is relatively small compared to its stronger influence on trust. Importantly, the results revealed that the largest portion of the variation in financial inclusion explained by financial literacy operates through trust. In the absence of trust, financial literacy alone has a small but statistically significant direct influence on the financial inclusion. Therefore, trust plays a crucial mediating role in the relationship between financial literacy and financial inclusion among refugees in Uganda.

Conclusion

This research sought to examine how the components of financial literacy and trust impact the financial inclusion of refugees in Kampala district, Uganda. The study also aimed to determine whether trust mediates the relationship between financial literacy and financial inclusion. Using PLS-SEM, we found that financial literacy significantly and positively influences the financial inclusion of refugees in Kampala district. Additionally, trust was also found to significantly and positively impact financial inclusion of refugees in Kampala district. Furthermore, the results indicate that trust partially mediates the relationship between financial literacy and financial inclusion. Consistent with financial literacy theory and the theory of trust, our study confirms that both financial literacy and trust are key determinants of financial inclusion in this context. Regarding novelty, our study is among the first to examine the mediating role of trust in the relationship between financial literacy and financial inclusion. Therefore, originality of the current study in demonstrating how financial literacy and trust interact to influence the financial inclusion of refugees in Kampala district, Uganda. Our findings are significant for theory, policy, financial services entities and development partners alike. Theoretically, the findings imply that financial inclusion can be explained from a multi-theoretical perspective. The study findings support both the theories of financial literacy and trust in explaining the nexus between financial literacy, trust and financial inclusion. The study nuances the financial literacy theory (Ozili, 2020) by demonstrating that while financial literacy is critical, its direct impact on financial inclusion is limited among refugees without the mediating role of trust. The theory is extended by showing that financial literacy's effectiveness is enhanced when it fosters trust, enabling refugees to overcome uncertainties about formal financial systems. The mediating role of trust integrates the theory of trust with financial literacy theory, suggesting that financial literacy influences financial inclusion primarily through its ability to foster trust. This relationship advances a new the multi-theoretical framework for understanding financial inclusion among marginalized groups such as refugees.

The study findings imply that government, financial institutions and development partners should prioritize extending financial literacy training programs to refugee camps and settlements to improve refugees 'access to and usage of formal financial products and services in Uganda. This can be done through educating refugees on the various financial products and services. These programs should focus on educating refugees about various financial products and services, as well as practical skills such as saving, budgeting, managing expenses, and making informed financial decisions. Moreover, it is important to offer training to refugees on saving strategies, effective budgeting, managing expenses within their means and making sound financial choices. In addition, financial institutions should put emphasis on building trust among refugees. This can be achieved by maintaining strict confidentiality regarding refugees' personal information, financial transactions, and other sensitive data. Additionally, financial institutions should develop and maintain trust with refugees by demonstrating reliability, consistency, openness and transparency in their operations. Furthermore, institutions should integrate financial literacy efforts with a deeper understanding of the dimensions of trust to effectively project a trustworthy image. This approach is likely to enhance the uptake and usage of financial products and services among refugees in Uganda.

Nevertheless, this research has limitations. Firstly, it focused exclusively on refugees, this may limit generalizability of the findings to others contexts. Future research could explore similar

relationships among other marginalized groups such as women, low-income earners and youth. Additionally, this study employed a across-sectional and purely quantitative approach. Given that financial literacy and trust are inherently subjective and behavioural constructs, future studies could adopt qualitative or mixed methods approaches. These will proffer deeper insights into how financial literacy and trust interact to influence financial inclusion.

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