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The Influence of Financial Self-efficacy on Financial Inclusion in Tanzania

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Abstract
It is argued that financial inclusion is the key motivator for both social and economic development. However, its desirable level is yet to be achieved worldwide due to several factors. The main goal of this paper is to examine the influence of financial self-efficacy on financial inclusion in Tanzania. The study looks into the causal relationship between financial inclusion and financial self-efficacy. Using social cognitive theory (SCT), a cross-section sample of 371 adult individuals from three urban areas of Arusha, Dodoma, and Mwanza in Tanzania was used. Both descriptive and partial least square structural equation modelling (PLS-SEM) analyses are conducted in the study with the support of SPSS and SmartPLS3.0. The results of the study supported the hypothesised direct relationship that financial self-efficacy has a significant positive effect on financial inclusion among adult individuals in Tanzania. The findings showed that financial self-efficacy accounted for more than 44% of the variance in financial inclusion. The results demonstrate that financial inclusion is significantly impacted by financial self-efficacy, which is the inner confidence an individual has in using financial products and services. The findings imply that individuals with high financial self-efficacy are financially included. Thus, financial self-efficacy should be considered when developing policies and strategies aimed at boosting financial inclusion among adult Tanzanians. Overall, the study demonstrates the importance of financial self-efficacy in the quest to increase financial inclusion to the desired level to achieve social and economic welfare globally.

Keywords: *Financial self-efficacy, Financial inclusion, Social cognitive theory.*

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Introduction

Financial inclusion has been a topical issue for policymakers, researchers, and practitioners worldwide in recent years. It has become a focal point due to its many socio-economic advantages. Financial inclusion refers to the access and usage of quality financial products and services by adult individuals from formal financial service providers (Demirgüç-Kunt & Klapper, 2013). Financial products and services include banking, saving, remittances, credits, and insurance to cover risks. Financial inclusion is related to financial stability, social equity, and economic prosperity (Aduda & Kalunda, 2012). According to Beck, Demirguc-Kunt, and Honohan (2009) and Claessens (2006), financial inclusion is a critical factor in reducing severe poverty and boosting individual wealth and economic potential. Additionally, the UN has acknowledged it as a key method for achieving Sustainable Development Goals (Atkinson & Messy, 2013; Demirguc-Kunt et al., 2020).

Along with other socioeconomic advantages, financial inclusion supports and fosters quick development and sustainable economic growth (Sarma & Pais, 2011; Ghosh, 2012). Levine (1997) contends that financial development is a corollary to economic growth because it allows money to flow from surplus to deficit units. Low levels of financial inclusion impede economic progress and lead to financial instability (Aduda & Kalunda, 2012). Therefore, financial inclusion is essential for social and economic development.

Financial inclusion is important because it is linked to economic growth and national prosperity (Sarma & Pais, 2011; Ghosh, 2012; Fungacova & Weill, 2015). It is the main driver for reducing poverty, increasing individual wealth and improving individual economic power (Financial Sector Deepening Trust, 2017; Kashuliza et al., 1998). According to Claessens (2006), financial inclusion improves economic growth and the well-being of citizens. Beck, Demirguc-Kunt and Hanohan (2009) argue that financial inclusion can equalise and expand individual opportunities. This has a positive impact on human development indicators such as health, education, diversity, and poverty reduction, which contribute to economic growth by creating value in small and large companies (Park & Mercado, 2015; Nanda & Kaur, 2016).

This importance has led the World Bank to set a goal of universal financial inclusion by 2020 (Atkinson & Messy, 2013). This goal has yet to be achieved. According to the 2021 Global Financial Inclusion Database (Global Findex), only 76% of adults worldwide are financially included (Demirguc-Kunt et al., 2022). According to Demirguc-Kunt et al. (2022), 71% and 55% of adults in developing countries and sub-Saharan Africa are financially included. Finscope Tanzania 2023 report (FSDT, 2023) claims that only 22.2 per cent of adult Tanzanians were found to use products and services from conventional financial institutions and are hence formally included within the financial system. Based on the findings, the majority of Tanzanians are financially excluded from formal mainstream financial service providers.

Various initiatives have been made in Tanzania to promote financial inclusion among the general public. These include First and Second Generations Financial Sector Reforms (1991-2012), Microfinance Policy of 2000, SME Development Policy of 2003, and National Financial Inclusion Frameworks (2014-2016; 2018-2022; and 2023-2028). These initiatives have benefited in part from proactive technical advancements like mobile money services

(Financial Sector Deepening Trust, 2023). Despite the progress made, such as an increase in access from 42 per cent in 2013 to 89 per cent in 2017 and usage from 57.7 per cent to 76 per cent in the same years, the formal financial inclusion rate is still not satisfactory (URT, 2023). According to the United Republic of Tanzania (2020), one of the reasons for the present status of financial inclusion is many people lack the inner confidence to handle their finances effectively, which is provided by high financial self-efficacy. Financial self-efficacy is defined as the inner confidence an individual has to participate in the usage of financial products and services without being overawed (Amatucci & Crawley, 2011). So, using the social cognitive theory, which postulated the concept of self-efficacy as our foundation, we looked at the relationship between financial self-efficacy and financial inclusion in our study. The aim is to understand the influence of financial self-efficacy on financial inclusion.

According to empirical studies, social, demographic, infrastructural, cultural, economic, and behavioural factors are the primary factors that determine financial inclusion (Kim, 2016; Yoshino & Morgan, 2016; Zins & Weill, 2016; Demirguc-Kunt et al., 2020; Van, Vo, Nguyen & Vo, 2021; Sakyi-Nyarko et al., 2022). The majority of research on financial inclusion has focused on socioeconomic, demographic, and infrastructural (Demirguc-Kunt et al., 2020), as well as demographic variables (Lotto, 2018; Omar & Inaba, 2020; Sakyi-Nyarko, Ahmad, & Green, 2022; Dogan, Madaleno, & Taskin, 2022; Ratnawati, 2020; Orlando, Riyanto & Masakavu, 2020). However, few studies have examined how behavioural characteristics like financial self-efficacy affect financial inclusion (Kiplangat et al., 2023). This knowledge gap served as the impetus for the current study's focus. The main issue for our inquiry is: Does financial self-efficacy influence financial inclusion in Tanzania? And to what extent?

Research studies (Rothwell et al., 2016) found that financial self-efficacy plays a mediation role between financial knowledge and the financial conditions of low-income families in Canada. Other behavioural studies (Katoroogo, 2016) revealed that financial self-efficacy mediates between behavioural characteristics and financial inclusion. Asebedo and Payne (2018) indicate that financial self-efficacy moderates the relationship between market volatility and financial satisfaction. Despite these findings, little is known about the direct effect of financial self-efficacy on financial inclusion. Therefore, this study investigated the causal effect of financial self-efficacy on financial inclusion in Tanzania. From the point of view of social cognitive theory, it examines to what extent financial self-efficacy influences financial inclusion.

Tanzania is the focus of this study for several reasons. First, it is a developing Sub-Saharan African country with low financial inclusion (Demirguc-Kunt et al., 2018; URT, 2023). Second, few studies have researched the direct influence of financial self-efficacy on financial inclusion. Third, being representative of developing countries in the world, the findings would be able to benefit other countries with conditions similar to those in Tanzania. Furthermore, most behavioural theories, such as social cognitive theory, have been developed and tested in developed economies where financial institutions work well (Koropp et al., 2014; Diseth, 2011; Weiser & Riggio, 2010). Testing these theories in various contexts provides promising avenues for gauging the generalizability of the previous findings.

Theoretically, the study contributes to the incorporation of social cognitive theory to explain the financial involvement of Tanzanian adults using financial self-efficacy as a predictor

variable. Empirically, this study adds to existing knowledge on financial inclusion in the Tanzanian context by bridging the gap between developed and developing countries. Furthermore, by examining how demand-side financial self-efficacy affects financial inclusion, the study bridges the existing gap with supply-side factors. In practice, the study will be helpful for the Tanzanian government and other developing countries, decision-makers, and financial service providers. It helps them understand the main psychological factors that drive people to use financial products and services. This can help design and implement appropriate policies and strategies to achieve sustainable financial inclusion development goals.

The rest of the article is structured as follows. The literature review is presented next and is followed by a methodology. The results of the study are then presented, analysed, and discussed. Finally, the conclusions and implications of the study are presented.

Literature Review

The social cognitive theory postulates that people are in charge of their behaviour through self-beliefs, even when they are unsure of the results of their acts (Bandura & Adams, 1977). The purpose of social cognition theory is to clarify how people manage and reinforce their behaviour to produce desirable behaviour that is sustained over time (Bandura, 1986). The foundation of this philosophy is the idea of self-efficacy. Self-efficacy is the responsible belief a person has in his or her capacity to act successfully (Bandura, 2001). People's lives are prejudiced by the extent of their self-efficacy beliefs (Bandura, 1988). According to Bandura (1991), those who are confident in their talents establish ambitious goals and remain steadfastly committed to achieving them. This is relevant in the context of financial inclusion, as people choose the financial services and products they want to utilise based on the level and strength of their financial self-efficacy. Asebedo and Payne (2018) contend that when a person has high levels of self-efficacy while lacking in education, income, and literacy, that person will persist in becoming financially included with the hope of a successful outcome due to their emotional fortitude to overcome adversity.

Financial inclusion is often defined as a state in which adults have actual and adequate access to credit, savings, payments, and insurance through financial service providers (Kim, 2016; Wang & Guan, 2017). Sarma (2008; 2012) has described financial inclusion as a process of making it simple for everyone in an economy to use, access, and participate in the formal financial system. The Ministry of Finance and Planning (MoFP, 2020) defined financial inclusion as "the policy objective aimed at providing a full range of convenient formal financial goods and services to all those who are currently excluded, accurately supplied, and at a reasonable cost". Similar to MoFP (2020), we define financial inclusion as a condition in which entirely working-age adults have effective use of formal financial products and services. The financial inclusion phenomena have several facets and are influenced by a variety of factors, including economic and political, sociocultural, psychological, and geographic ones (Abu Seman, 2016).

Financial self-efficacy is defined as having the inner confidence to use financial services without being dazed (Amatucci & Crawley, 2011; Dietz et al., 2003). It is one of the key elements that affect a person's financial conduct (Amatucci & Crawley, 2011; Dietz et al., 2003; Rothwell et al., 2016). According to social cognitive theory (Bandura, 1986), there is an

association between financial self-efficacy and specific behavioural involvement (Asebedo & Payne, 2018). The likelihood of participation increases with the level of financial self-efficacy. According to Lent, Brown, and Hackett (1994), to successfully engage in financial inclusion behaviour, one must possess the necessary knowledge, skills, and abilities as well as a high level of financial self-efficacy. Individuals' self-assessed ability to carry out various behavioural roles and duties to support the utilisation of financial products and services is referred to as financial self-efficacy (Katoroogo, 2016)

Katoroogo (2016) used financial self-efficacy as a mediator of individual and societal capabilities between behaviour factors and financial inclusion and found there is a direct and mediating connection between financial self-efficacy and financial inclusion. Additionally, Rothwell et al. (2016), also found financial self-efficacy to mediate the relationship between financial knowledge and post-secondary education saving in Canada. The study examined the relationship between financial knowledge, financial self-efficacy, and savings outcomes using low-income Canadians. Given the fact that financial self-efficacy has been found to have mediation power above, it is hypothesised that it also has a direct link with financial inclusion. Empirical evidence shows that financial self-efficacy is the primary factor that influences individual financial behaviour (Amatucci & Crawley, 2011; Dietz et al., 2003; Rothwell et al., 2016).

Asebedo and Payne (2018) looked at how financial self-efficacy influenced the relationship between market turbulence and financial contentment. They discovered that, notwithstanding market volatility, financial self-efficacy is a key predictor of financial satisfaction. Given the perceived advantages of financial inclusion, this study speculates that people who have stronger financial self-efficacy are more likely to be motivated to engage in using formal financial products and services and, hence, become financially included. This infers that there is a direct link between adult individuals and financial inclusion. It is therefore hypothesised that financial self-efficacy is positively associated with financial inclusion in Tanzania.

Methodology

The study used a deductive strategy and a quantitative methodology. Data were gathered once using a cross-sectional survey design. The study's research design was appropriate since it looked to what extent financial self-efficacy affected the usage of formal financial services and products at a particular moment (Cresswell, 2008). Three major financial cities of Arusha, Dodoma, and Mwanza in Tanzania were the focus of the study (BoT, 2019). These cities were selected because of the availability of banking institutions and networks. To ensure focus and avoid biases, it was impressive that respondents should come from areas where there is the availability of financial service providers necessary for self-driven demand for financial products and services. In addition, most individuals who reside in urban centres are better educated, have income-generating activities, and reside near formal financial services providers, hence providing a better reference of the relationship between financial self-efficacy and financial inclusion (Lotto, 2018; Zins & Weill, 2016).

Adult individuals 18 years old and above were the targeted population of the study. In these particular locations, there were 835,476 adult individuals as per data derived from the National Bureau of Statistics (NBS) for the year 2018 (NBS, 2018). The individual financial service

users and potential users served as the unit of analysis. Due to the individual-level demand-side focus of the study, individuals were specifically considered. These individuals are suited to provide information on the influence of financial self-efficacy on financial inclusion.

Using the sample size selection method described in Yamane's formula (1967), 400 individual financial consumers were chosen. A multi-stage stratified sampling strategy was utilised to collect the desired number of respondents. First, the three significant urban regions mentioned above were purposefully chosen. Second, wards within the chosen urban centres with the availability of supply-side financial products and services were deliberately picked. These wards included Mjini Kati, Levolosi, and Mianzini (Arusha), Uhuru, Viwandani, Kizota, Makole, Madukani (Dodoma), and Butimba, Igoma, Mabatini, Mkolani, Nyamagana and Nyegezi (Mwanza city council). Third, households' primary (sampling units) from each ward that were identified by the National Bureau of Statistics (NBS) were randomly chosen (FSDT, 2017). The lottery (Saunder & Lewis, 2016), where each household was assigned a number to be selected at random, was used to select households. Kish's grid method (Demirgic-Kunt et al., 2015) was chosen to select members within the household to be interviewed. A table of preselected random numbers is used to find people to interview.

Two variables, namely financial inclusion and financial self-efficacy, were measured and examined, as presented in Table 1. Financial inclusion for an individual in this study refers to a person who makes use of products and services from formal financial service providers. This was measured using seven points Likert scale (5-line items) indicators borrowed from Demirguc-Kunt and Klapper (2013), Sarma (2008), Camara and Tuesta (2014), Katoroogo (2016), Mindra and Mayo (2017), Mindra, Moya, Muze and Kadongo (2017). Financial self-efficacy for an individual in this study refers to a person's inner assurance that a person can manage their finances well and without feeling intimidated. This was measured using seven-point Likert scale (7-line items) indicators derived from Ammatuci and Crawley (2011), Lown (2012), Mindra and Moya (2017), and Rowley, Lown, and Piercy (2012).

The information from respondents was gathered via a self-administered questionnaire. Data collection commenced in February 2021 and ended in April 2021. The researcher and two assistants physically presented and collected questionnaires. The questionnaire was divided into three portions that looked at the respondent's demographics, financial inclusion (a dependent variable), and financial self-efficacy (an independent variable). Demographic variables such as age, gender, income, and educational background are helpful as they provide profiles of the respondents for comparison with previous studies.

Moreover, demographic variables provided the status of usage of financial products and services. The questionnaire items were created using previously validated variables that similarly represented the environment of emerging economies but were changed to fit the perspective of the study (Katoroogo, 2016; Mindra & Moya, 2017). Cronbach's alpha coefficient was used to measure the instrument's reliability in terms of internal consistency. All variables met the alpha coefficient criteria of 0.704, suggesting that they were acceptable.

Four hundred survey questionnaires were distributed, and out of those, a total of 379 (95 per cent response rate) were completed. The remaining 21 (5 per cent) were partially filled and not useful. There were eight instances of missing data, which is roughly 2 per cent of the usable

questionnaires of 379. Given that they were below 15 per cent, a mean value replacement strategy was used to solve this problem (Ringle et al., 2015). The data also encountered outlier issues as three extreme cases were found. After a thorough investigation, it was found to be a posting issue from manual to computer. This was corrected. There were 8 cases of suspicious responses where with straight-lining patterns. These were removed, and the number of usable questionnaires was reduced from 379 to 371. Therefore, out of 400 individuals targeted, 371 (over 92 per cent) responses successfully met the criteria, and after that, the analysis was conducted.

Table 1: Demographic Profile of Present Study Respondents

Profile	Frequency	Per cent
Gender		
Male	184	49.5
Female	187	50.5
Marital status		
Single	149	40.3
Married	195	52.5
Cohabiting	19	5.2
Divorced or separated	4	1.0
Widow	4	1.0
Education attained		
Did not attend	0	0
Primary education	26	7.0
O-level	38	10.3
A-level	17	4.5
Vocational training without formal education	2	.5
Vocational training after primary education	2	.5
Vocational training after secondary education	32	8.5
Diploma	47	12.8
Bachelor's degree	139	37.3
Master's degree or higher	68	18.8
Employment		
Yes	235	63.3
No	136	36.7
Monthly income (TZS)		
Below 50,000	38	10.3
50,001 to 500,000	147	39.5
500,001 to 1,050,000	96	26.0
1,050,0001 to 1,550,000	39	10.5
1,550,000 to 2,050,000	16	4.3
2,050,000 to 2,500,000	11	3.0
Above 2,500,000	24	6.5

Analysis and Results

Respondents' Profiles

As indicated in Table 1, the profile of the respondents indicates that out of 371 responses, 187 were female, or 50.5 per cent of the total. The majority of the respondents were married (195 respondents constituting 52.5 per cent) and had jobs (235 or 63.3 per cent). There are variations in monthly income as well. A total of 282 respondents, or 75.5 per cent, reported having a monthly income of between TZS 50,000 and TZS 1,550,000.

The majority of respondents had higher education, and all had undergone formal education. The high percentage of respondents with higher education can be explained as a result of sampled areas, age, and level of income. Studies by Financial Sector Deepening Trust (2017) and Zins and Weill (2016) have revealed that people who reside in urban areas are younger, have high levels of income and formal employment, and tend to be highly educated. The mean and median ages of the respondents, who ranged in age from 18 to 67, were 35 and 33, respectively. This suggests that young adults made up the bulk of the respondents. This is consistent with other research, which revealed that people between the ages of 25 and 64 were more likely than those between the ages of 65 and older to have a formal bank account (Lotto, 2018; Soumaré et al., 2016). Additionally, the findings showed that responders typically had four dependents.

The demographic profile showed the characteristics and behaviour of the survey respondents. This shows that the typical survey respondent is a young adult who is employed with a monthly income, lives in a city, and is educated. These individual characteristics based on the voluntary participation of respondents form the backbone of a scientific investigation of financial self-efficacy influence on financial inclusion in Tanzania.

Table 2: PLS Model Quality Criteria

	Loadings	AVE	CR	α
Financial Inclusion (FINC)		*0.832*	*0.961*	*0.949*
FINC1: I am familiar with formal products and services.	0.892			
FINC2: I have used my savings account to save for future expenses	0.945			
FINC3: I have sent and received money through my account.	0.930			
FINC4: I have used insurance services for many types of protection.	0.924			
FINC 5: I have got a loan from a formal FI for financial needs	0.867			
Financial self-efficacy (FSE)		*0.749*	*0.954*	*0.944*
FSE1: I know I can handle financial issues without any difficulty.	0.835			
FSE2: I can easily set aside a portion of my monthly paycheck.	0.874			
FSE3: I find it simple to adhere to my income-based savings plan.	0.904			
FSE4: I feel comfortable making deposits to the formal FI in order to make plans	0.882			
FSE5: To cover unforeseen circumstances, I can buy insurance.	0.905			
FSE6: I can easily transfer funds through formal FI	0.834			
I am capable of using financial services to manage my goals	0.818			

***Note**: AVE = Average Variance Extracted, CR = Composite Reliability*

Measurement Models

PLS-SEM estimations are used in these models to assess the construct measures' validity and reliability (Hair et al., 2021). All standardised loadings of items were significant at the 0.01 significant level and went above the cutoff of 0.708 in terms of reliability (Table 2). All Average Variance Extracted (AVE) values in terms of convergent validity were more than a threshold of 0.5 (Fornell & Larcker, 1981; Hair, Anderson, Babin & Black, 2010). Therefore, validity is confirmed. Each latent variable's Composite Reliability (CR) and Cronbach's alpha (**α**) were assessed for internal consistency reliability. All values of each latent variable were over the 0.70 level criterion, which indicates higher reliability levels. Higher composite reliability of 0.961 and 0.954 could be seen as undesirable. However, it is acceptable because it affirms the uni-dimensionality of constructs as long as items in the scale are not redundant (Hair et al., 2021). As a result, the measures' convergent validity and internal consistency reliability are satisfactory.

Common Method Bias

In investigations, when data for both independent and dependent variables are gathered from the same individual in the same measurement context utilising the same item context and similar item attributes, common method bias is typically present (Podsakoff et al., 2003). Sources of common method bias include independent and dependent variables used with the same item, the presence of errors in the measurement items, and the context in which the measurement instruments are obtained. Podsakoff et al. (2003) mentioned approaches and techniques for method bias, such as pre-testing and pilot studies. This study used pre- and post-hoc approaches to avoid the common method bias problem. In the pre-hoc approach, a pilot study was conducted to ensure the clarity, brevity, and validity of the scale items. There were clear instructions to keep submitted information anonymous and confidential. The post-hoc approach used variance inflation factors generated through the full collinearity test (Kock, 2015). According to Kock (2015), the full collinearity test procedures involved setting each variable in the model as a dependent variable. The procedure of setting each variable as the dependent variable resulted in two models. The two models were tested through full collinearity test VIFs, and results were recorded as indicated in Table 3. The values of VIFs were both below the threshold of 3.3, indicating a lack of common method bias.

Table 3: Full Collinearity VIFs

Relationship	Model A	Model B
FSE → FINC	1.000	
FINC → FSE		1.000

Structural Model

The model was initially examined for multi-collinearity. This test, which looked at the Variance Inflation Factor (VIF) values, was conducted using SPSS software. Hulland (1999) asserts that the values of predictor variables need to be lower than 3.0 to demonstrate the multi-collinearity issue. Results indicate that the value is 1.0, which is significantly less than the 3.0 cutoff value. The predictor variables do not have a problem with multi-collinearity. The explanatory power and predictive importance of exogenous factors were evaluated using the coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2). According to

the R^2 statistic, which is a requirement for evaluating the structural model, financial self-efficacy accounts for 44.9% of the variation in financial inclusion (Table 4). This percentage is very high for consumer behaviour discipline, where 20% is considered to be high (Hair et al., 2021). The effect size (f^2) of 0.816 indicates that financial self-efficacy has a very large influence on financial inclusion, as it is above the 0.35 scale (Cohen, 1988). Predictive relevance (Q^2) of 0.353, which is greater than zero, confirms that financial self-efficacy has out-of-sample predictive power over financial inclusion (Geisser, 1974; Stone, 1974).

Table 4: Explanatory Power and Predictive Relevance

	R^2	f^2 *effect size*	Q^2 *effect size*
FSE →FINC	0.449	0.816	0.353

The PLS-SEM structural model's out-of-sample prediction power was also evaluated using PLS prediction. Findings demonstrate that the model beats the most simplistic benchmark, with Q2 predicted values of endogenous construct indicators larger than zero (i.e. the indicator means from the analysis sample). Additionally, a comparison of the PLS-SEM analysis and Linear Regression Model (LM) demonstrates that all indicators have lower RMSE or MAE values in the PLS-SEM analysis when compared to the naive LM benchmark (Table 5). This demonstrates the model's strong predictive ability.

Table 5: Out-of-Sample Predictive Power

	PLS-SEM Analysis			**LM Benchmark**		
	RMSE	***MAE***	***Q^2_predict***	***RMSE***	***MAE***	***Q^2_predict***
FINC1	1.185	0.829	0.307	1.195	0.831	0.296
FINC2	1.211	0.84	0.409	1.216	0.84	0.403
FINC3	1.211	0.863	0.407	1.223	0.87	0.395
FINC4	1.222	0.907	0.329	1.23	0.905	0.32
FINC5	1.258	0.895	0.362	1.267	0.916	0.353

Hypothesis Test Results

After the two-step analysis for verifying the reliability and validity of our measures, path relationship results are presented in the structural model. Findings indicate that financial self-efficacy is positively associated with financial inclusion. The results show that financial self-efficacy explains almost 45 per cent of the variation in financial inclusion.

The major goal of the study was to look into how financial self-efficacy affects financial inclusion. The results (Table 6) indicate that self-efficacy significantly influences financial inclusion ($\beta = 0.67$, $t = 12.8$, $\rho < 0.00$). As a result, the findings did support the theory that financial self-efficacy had a favourable impact on financial inclusion.

Table 6: Path Coefficients and Significance Testing Results

Path Relationship	*Path Coefficient*	*t - Values*	*P - Values*	f^2	R^2	Q^2	*Hypo thesis*	*Decision*
SN – FINC	0.67	12.77	0.00	0.82	0.45	0.35	H_1	Supported

The hypothesis was there is a positive relationship between financial self-efficacy and financial inclusion. The hypothesis is supported. The results show a strong positive and significant relationship between financial self-efficacy and financial inclusion, as shown by inner confidence to engage in financial matters. This suggests the importance of consumer confidence in financial markets is crucial for financial inclusion. It implies that financial self-efficacy is one of the key factors influencing financial inclusion. It is confirmed that the higher the degree of financial self-efficacy among individuals, the higher the tendency to be financially included.

Importance-performance Map

Analysis of the importance-performance matrices between independent and dependent constructs is also included in the study. Analysis of the impact and effectiveness of financial self-efficacy on financial inclusion was the goal. The findings show that financial self-efficacy has a total impact on financial inclusion of 0.67 points and a performance impact of 24.25 points. This indicates that using a static method of assessment, the index value of the target variable financial inclusion will grow by 0.67 points if the index value of financial self-efficacy increases by one unit (ceteris paribus). Additionally, according to the importance-performance matrix analysis, financial self-efficacy performs relatively well, with a score of 24.25. This implies a one-unit rise in financial self-efficacy from 24.25 to 25.25 would increase by 0.67 points in financial inclusion's performance, demonstrating that it has a greater impact.

Discussion

The causal relationship between financial self-efficacy and financial inclusion was investigated in Tanzania. The conceptualisation of the investigated constructs followed theoretical literature reviews. Based on this literature, reliable and valid measures were created and utilised to measure these constructs. Given that financial inclusion is a crucial instrument for reducing poverty, understanding its drivers is crucial. The results of this study, which used PLS-SEM, show that financial self-efficacy has a positive and significant influence on financial inclusion. This could be attributed to the fact that self-efficacy drives individuals to perform activities without hesitation (Bandura & Adams, 1977). Individuals with high self-efficacy tend to focus more on the benefits of outcomes rather than obstacles to performing a desired behaviour (Bandura, 1991).

To participate fully in financial inclusion, individuals must have the necessary skills, knowledge, and capabilities in financial matters (Adebedo & Payne, 2018; Rothwell et al., 2016). Individuals who possess these attributes are most likely those with high financial self-efficacy. Individuals with high financial self-efficacy are most likely aware of the benefits which come with being engaged in financial products and services. This will push them to set higher financial inclusion behaviour targets and commit to achieving them. Therefore, it is no surprise that both statistical results and importance-performance matrix analysis have shown

a strong influence on enhanced financial inclusion. This is on the back of the fact that financial self-efficacy makes individuals rate themselves on their ability to engage in financial matters. They are convinced they have the inner capabilities to withstand stressful financial situations whilst being aware of the benefits which come with financial inclusion engagement.

The present study's findings align with those of research carried out in Canada on the influence of financial self-efficacy on behavioural finance (Rothwell et al., 2016). That study revealed that financial self-efficacy influences a mediating capacity. The findings are corroborated by another empirical study in Uganda (Mindra & Moya,2017), which confirmed financial self-efficacy as the mediator in the relationship between behavioural factors and financial inclusion. Consistent with that, the study by Asebedo and Payne (2018) showed that financial self-efficacy is a moderator between market volatility and financial satisfaction. They claim that financial self-efficacy promotes confidence in individuals to engage in the use of financial services. This implies that financial self-efficacy is a core when we want to promote financial inclusion. This means self-efficacy is a prime trait when it comes to behaviour as it affects people's cognitions, motivations, affective processes, and, ultimately, their behaviour (Bandura, 1998). This claim has been corroborated by the findings of the study, which shows that financial self-efficacy has a positive and significant influence on financial inclusion in Tanzania. Furthermore, the importance and performance matrix has shown financial self-efficacy to have high importance and performance as far as financial inclusion is concerned. The study's results also support the social cognitive theory (Bandura, 1986) on financial self-efficacy's possible influence on financial inclusion.

Conclusion

This study construed the influence of financial self-efficacy on financial inclusion. The statistical results show that financial self-efficacy positively and significantly influences financial inclusion. Also, based on the importance-performance matrix analysis, financial self-efficacy is shown to have a greater impact on financial inclusion in terms of importance and performance. This implies that individuals who have inner confidence in their ability to successfully engage in the usage of financial products and services are more likely to be financially included. Given this, our study supports the view postulated by the social cognitive theory that individuals with high financial self-efficacy will use formal financial products and services if given the opportunity. The study demonstrates the viability of using behavioural theories to forecast the link between financial self-efficacy and financial inclusion. These findings infer that behaviour factors such as financial self-efficacy should be taken into consideration by all stakeholders. The findings illustrate the need to consider a wide range of variables while promoting financial inclusion. To attain the ultimate aim of financial inclusion for all, it is crucial to include elements on both the supply and demand sides, such as behavioural aspects, which are represented by financial self-efficacy.

The theoretical contribution of this study is utilising the social cognitive theory in the context of financial inclusion in Tanzania. The successful application of this psychological theory in financial behaviour research has manifested its flexibility in testing financial self-efficacy as a predictor variable for financial inclusion. The incorporation of the financial domain of self-efficacy, as postulated in the theory, has extended social cognitive theory into a new field of finance. The application of this theory in financial inclusion research has taken a lead in the

Tanzanian context. The findings of the study are consistent with literature recommendations that financial self-efficacy is one of the key behaviour factors influencing financial inclusion (Asebedo & Payne, 2018; Rothwell et al., 2016). Additionally, using financial self-efficacy as the only variable to influence financial inclusion offers a more thorough explanation of the variables affecting each person's use of formal financial products and services.

Practically, the results of the study recommend to all stakeholders to give financial self-efficacy its due weight as a predictor of financial inclusion. The government, policymakers, and financial services providers should come up with a proper mechanism that will enhance the confidence of the general populace towards financial inclusion. This can be achieved in many ways. First, the government should assure the populace about the benefits inherent in being financially included, such as safety and good governance of the formal financial sector. Second, financial services providers should ensure they have the people's trust by being transparent in disclosing fees, charges, and interests associated with their financial products and services. The process of providing services such as opening an account, applying for credit, transferring funds, insurance, credits, and loans must be open and transparent.

Additionally, financial service providers must help people gain greater levels of confidence in their ability to use financial services. Third, programmes which will enhance financial self-efficacy among individuals should be developed and rolled out. Moreover, to increase the confidence of future users of financial products and services, financial self-efficacy should be incorporated into the educational curriculum from the earliest stages of education. Fourth, campaigns aiming at enhancing inner confidence among individuals should be developed and aired out to the general populace.

The study's findings serve as a reminder to policymakers to develop more effective, doable plans that will guarantee the achievement of the country's financial inclusion goals. Future policies will be more effective if policymakers have a greater grasp of how people behave and make decisions, especially about the key psychological elements that may affect those behaviours and actions. In this context, the upcoming National Financial Inclusion Framework (NFIF) should include strategies and measures to increase people's confidence in financial transactions. This will increase the financial strength of individuals and the ability to participate in the national and international financial systems. They can undoubtedly overcome the obstacles that prevent people from using formal financial products and services with the aid of these techniques for improving self-efficacy.

This study has several limitations that should be addressed for future similar studies. First, it is a cross-sectional design where data were collected at once. Since financial inclusion is a dynamic phenomenon, it could benefit more from a longitudinal study design where data will be collected over some time. Second, since the current study has used a quantitative method, further studies should consider using qualitative or mixed methods to enhance the understanding of the phenomena. Third, this study has used one predictor variable to deduce financial inclusion, which is a multifaceted phenomenon. Therefore, there is a need to use more predictor variables to analyse the situation. Fourth, future studies may incorporate moderation or mediation variables into the equation for an advanced analysis of factors influencing financial inclusion.

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