



## EMPOWERING FINANCIAL INCLUSION: THE ROLE OF FINANCIAL LITERACY AND SELF-EFFICACY AMONG WORKING WOMEN

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### Abstract

This research aimed to shed light on the factors influencing financial inclusion among employed women in Uganda. The study had two main objectives: first, to examine the impact of financial literacy on the financial inclusion of working women, and second, to investigate the influence of self-efficacy on their financial inclusion. The theoretical framework was grounded in the empowerment theory and the social cognitive theory. Employing a correlational cross-sectional design, the study utilized a sample size of 384, determined through the Krejcie & Morgan table at a 5% level of significance, drawn from a population of 327,930 working women (aged 15 and above) across all five divisions of Kampala district in Uganda. Primary data were collected using a closed-ended structured questionnaire, and the relationships among study variables were examined through Pearson correlation analysis. Empirical validation of hypotheses was conducted using Multiple Regression Analysis. The findings indicated a significant positive impact of financial literacy ( $B=0.383$ ,  $\beta=0.365$ ,  $p<0.01$ ) and self-efficacy ( $B=0.091$ ,  $\beta=0.114$ ,  $p<0.05$ ) on financial inclusion among working women. Consequently, the study hypotheses were rejected. The study suggests that the government of Uganda should formulate deliberate policies aimed at enhancing the financial literacy of working women. This may involve approving training curricula that incorporate content on financial behavior, skills, and attitudes. Furthermore, supporting initiatives targeting working women to boost their self-belief in utilizing existing financial services, potentially through role models, is recommended.

**Keywords:** financial inclusion, financial literacy, self efficacy, women

### Introduction

Recognizing the pivotal role of financial inclusion in alleviating poverty, fostering social cohesion, and driving economic growth has become a consensus in academic discourse (Adeola & Evans, 2018; Sethi & Acharya, 2018). Consequently, numerous studies have explored the determinants of financial inclusion, with a prevailing consensus that financial literacy significantly contributes to it (e.g., Olaniyi, 2015; Bongomin et al., 2020). However, scant attention has been given to understanding how financial literacy specifically influences financial inclusion among women, as existing research predominantly concentrates on the impact of education levels (Shihadeh, 2018; Myeni, Makate, & Mahonye, 2020). Since education falls short as a perfect proxy measure for financial literacy (Garg & Singh, 2018a), the precise relationship between financial literacy and financial inclusion in the female demographic remains unclear. Furthermore, Bandura's seminal work (1999) suggests that individuals are unlikely to effectively apply their skills unless they possess confidence in their ability to do so, prompting an inquiry into the extent to which self-efficacy enhances financial inclusion. To date, no study has elucidated the combined

effects of financial literacy and self-efficacy on financial inclusion among women in a developing country, essential for targeted policy formulation.

The definition of financial literacy varies among scholars, with the Organisation for Economic Co-operation and Development (OECD, 2022) providing a comprehensive definition that includes attitude, skill, knowledge, awareness, and behavior crucial for sound financial decision-making. Despite the absence of a conclusive method for measuring financial literacy in current literature, this study adopts the comprehensive conceptualization proposed by Bongomin et al. (2018, 2020), which encompasses both functional (attitudes and behavior) and non-functional (skills and knowledge) measures. In this investigation, financial literacy is operationalized through the dimensions of attitudes, skills, behavior, and knowledge.

Several scholarly works consistently emphasize the importance of financial literacy in driving financial inclusion. For instance, research highlights that enhanced financial literacy increases the likelihood of financial well-being among youth in India (Garg & Singh, 2018b) and impoverished households in Uganda (Bongomin, Ntayi, et al., 2017). Moreover, exposure to enactive mastery tutorials has been shown to heighten individuals' intentions to engage in secure e-banking behaviors (Waddell et al., 2014). Klapper et al. (2017) and Mindra & Moya (2017) assert that individuals with higher financial literacy possess the capacity to make informed financial decisions. However, existing studies often assess financial literacy based on understanding interest rates, risk management, and rates of return, neglecting a comprehensive examination of financial knowledge dimensions. Ramalho & Forte (2019) argue that studies solely relying on financial knowledge as an indicator of financial literacy are limited, advocating for an evaluation of how individuals apply acquired financial knowledge in using financial services. Addressing this conceptual limitation, our investigation delves into various dimensions of financial literacy, including financial skills, attitudes, behavior, and knowledge.

Furthermore, diverse analyses in academic literature present varying perspectives on the impact of financial literacy on financial inclusion. Klapper, Lusardi, & Panos' (2012) research provides an illustrative example, revealing the dual effects of financial literacy on individuals' participation in financial markets. It suggests that financial literacy has a detrimental effect on the adoption of unstructured financial instruments but is positively associated with participation in structured financial products. A randomized evaluation by Drexler, Fischer, & Schoar (2014) in the Dominican Republic concludes that the impact of financial literacy on financial inclusion is not uniform, as the financial literacy needs of different individuals vary. Another study by Jonsson et al. (2017) demonstrates that stock market participation is not significantly correlated with an investor's technical financial expertise, while mutual fund knowledge positively and significantly influences stock market participation. In Uganda, a study among rural households by Bongomin et al. (2017) suggests that while attitude significantly enhances financial inclusion, other financial literacy components (i.e., behavior, knowledge, and skills) do not. Building on the insights provided by the Bongomin et al. study, our current research further contributes by focusing specifically on working female adults, while also introducing the mobile money indicator to the financial inclusion index.

Self-efficacy, as an individual trait, is commonly employed in various metrics (e.g., Afzal et al., 2019; Shiau et al., 2020; Herawati et al., 2020) to gauge how individuals perceive their capacity to accomplish specific actions to achieve desired performance levels (Bandura, 1986). This study focuses on financial self-efficacy (FSE), defined by Herawati et al. (2020) as an individual's belief in their ability to make effective use of the financial services available to them. Utilizing Lown's Financial Self-Efficacy Scale (FSES), built upon Schwarzer and Jerusalem's (1995) universal self-efficacy scale, this study offers a clear operationalization of self-efficacy. A growing body of evidence, predominantly from developed countries, supports the idea that self-efficacy positively influences performance. However, there is limited understanding of how self-efficacy impacts financial inclusion among women in developing countries. For instance, Otto's (2009) thesis on saving behavior emphasizes the importance of belief in one's ability to manage money in making sound financial decisions. Lapp's (2010) longitudinal investigation suggests that financial self-efficacy reduces debt while increasing savings among clients of the Economic Analysis and Research Network (EARN). A study in the Netherlands by Rooij et al. (2012) focusing on individuals in charge of household finance reveals that those with higher financial self-efficacy are more likely to successfully implement their financial plans. Additionally, in the context of fintech usage in China, Shiau, Yuan, Pu, Ray, & Chen (2020) find that individuals with high financial self-efficacy effectively manage their finances due to perceived greater positive value. In Italy, the readiness of women to delegate investment decisions is linked to a lack of self-confidence in financial matters (Calcagno & Monticone, 2011), a finding supported by Amatucci & Crawley (2011), who conclude that low confidence among businesswomen in the US contributes to their limited involvement in financial management. Moreover, financial literacy influences the nature and volume of financial instruments used by women, as per Farrell et al. (2016), who highlight the significant impact of financial self-efficacy on women's use of and preference for financial products.

Notably, none of the previously mentioned scholarly works conceptualize financial inclusion as a construct. Only Mindra et al. (2017) delve into financial inclusion, concluding that financial self-efficacy among Ugandans in rural and urban areas positively impacts their financial inclusion. However, this investigation has three limitations: it uses a generality scale instead of a validated domain-specific measure for operationalizing financial self-efficacy, excludes the welfare dimension in measuring financial inclusion, and does not incorporate the mobile money indicator in the financial inclusion index. This empirical study aims to contribute to existing research by conceptualizing financial inclusion as welfare, access, quality, and usage, incorporating the mobile money indicator, and focusing specifically on women in Uganda. Given the importance of self-efficacy in motivating individuals through outcome expectations (Bandura, 1999), the Social Cognitive Theory (SCT) provides a framework to understand the influence of financial self-efficacy on financial inclusion.

This study is grounded in the empowerment theory and the social cognitive theory, providing a theoretical framework to elucidate the relationship between financial literacy, self-efficacy, and financial inclusion. The empowerment theory, as articulated by Zimmerman (2001), posits that actions, initiatives, or arrangements can lead to an individual's empowerment.

Zimmerman's conceptualization suggests that the empowerment process enables individuals to enhance their skills, fostering autonomy in problem-solving and decision-making. Individual outcomes, according to this theory, encompass situation-specific perceived control, skills, and proactive behaviors. The empowerment theory contends that individuals develop competencies that enable them to autonomously make decisions, shedding light on how one's literacy level can empower them to effectively utilize available economic information.

Similarly, the social cognitive theory (SCT) as formulated by Bandura (1986) asserts that human motivation and behavior are extensively influenced by forethought, with cognitive expectant control mechanisms being dominated by beliefs of personal efficacy. According to the SCT, individuals with a strong belief in their capabilities exhibit resilience, exert extra effort, and seek innovative methods to overcome challenges (Bandura, 1999). Beliefs in coping efficacy are specific to situations, and self-efficacy's predictive power is domain-specific, aligning with the principles of the SCT (Bandura, 1986). Consequently, the concept of financial self-efficacy remains consistent with the SCT, providing a situational and domain-specific perspective. Leveraging the SCT can offer a deeper understanding of the implications of financial self-efficacy on financial inclusion among working women.

Divergent definitions of financial inclusion among scholars necessitate clarity, and this study aligns with the comprehensive definition proposed by Ballesteros et al. (2021). Financial inclusion, according to this definition, ensures that every individual with the capability to use financial services has access to quality, affordable services in a dignified, respectful, and convenient manner. The measures of financial inclusion in this study draw from Bongomin et al. (2017) work, encompassing quality, access, welfare, and usage.

### **Statement of the Problem**

In numerous sub-Saharan countries, women, despite often having equal or lower financial literacy compared to men, paradoxically experience higher rates of financial exclusion as adults (The Global Findex Database, 2021). Scholarly investigations into the connection between financial literacy and financial inclusion among women are notably scarce, with researchers predominantly concentrating on the influence of education levels on women's financial inclusion. For example, Shihadeh (2018) and Myeni, Makate, & Mahonye (2020) have explored the impact of women's educational levels on their financial inclusion and have found that higher education correlates with increased financial inclusion. However, these studies may not sufficiently elucidate the relationship between financial literacy and financial inclusion among women, as Garg and Singh (2018a) assert that education does not serve as an ideal proxy measure for financial literacy. Furthermore, there is evidence, primarily from developed countries, suggesting that a lack of self-efficacy among women hampers their financial inclusion. For instance, Calcagno & Monticone (2011) discovered that Italian women delegate investment decisions due to a lack of confidence in financial matters, and Amatucci & Crawley (2011) concluded that U.S. women often lack the confidence to make financial decisions. The impact of financial literacy and self-efficacy on the financial inclusion of women in developing countries, however, remains largely unknown.

In Uganda, women constitute the majority of the adult population at 54% (FinScope Uganda, 2018), dominate the working population at 51%, and have a longer life expectancy than men by approximately two years (Uganda Bureau of Statistics, 2018). Despite this, 23% of women are financially excluded, compared to 22% of men (FSD Uganda, 2018). There is a significant risk that if this trend persists, the majority of the Ugandan population will remain in poverty, potentially leading to social disharmony. Notably, no research has provided empirical confirmation specific to women on the influence of financial literacy and self-efficacy on financial inclusion in the context of a developing country. This study aims to address this knowledge gap among working women in Uganda.

### **Objectives of the study**

1. Establish the effect of financial literacy on financial inclusion among working women in Uganda.
2. Establish the effect of self-efficacy on financial inclusion among working women in Uganda.

### **Hypotheses of the study**

1. There is no significant effect of Financial literacy on financial inclusion among working women in Uganda;
2. There is no significant effect of Financial behaviour on financial inclusion among working women in Uganda.

### **Methodology**

This study employed a correlational cross-sectional design to test hypotheses, leveraging the questionnaire tool for efficient data collection from a large sample within a relatively short timeframe. Close-ended questionnaires were utilized, administered either through self-administration or interviewer-administration, adapting to the literacy levels of the respondents. The questionnaire featured a 6-point Likert scale, ranging from (1) strongly disagree to (6) strongly agree, serving as the primary data collection instrument. Determining the sample size, the study adhered to Krejcie & Morgan's (1970) guidelines at a 5% level of significance, resulting in a sample size of 384 from a population of 327,930 working women aged 15 years and above in all five divisions of Kampala district, Uganda (Uganda Bureau of Statistics, 2018).

The five divisions of Kampala district were treated as clusters, with 77 working women conveniently sampled from each division, forming the total sample size of 384. The individual working woman constituted the unit of analysis and inquiry. To examine the relationships between study variables, Pearson correlation analysis was employed, utilizing Pearson's product-moment correlation coefficient as the statistical method. For empirical validation of hypotheses, Multiple Regression Analysis was employed.

### **Results**

Pearson product-moment correlation coefficient analysis was conducted to ascertain the connections between financial literacy, self-efficacy, and financial inclusion. The findings of this correlation analysis are comprehensively presented in Table 1.

Table 1: Correlations Matrix for Financial Inclusion and determinants

	Financial literacy	Self-efficacy	Financial inclusion
Financial literacy	1		
Self-efficacy	.325**	1	
Financial inclusion	.402**	.232**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis demonstrates that financial literacy and self-efficacy are significant and positively related to Financial Inclusion at 99% level of confidence.

Multiple Regression analysis was employed to examine the hypotheses and elucidate the impact of financial literacy and self-efficacy on the financial inclusion of working women, aiming to establish the statistical significance of these relationships.

First hypothesis, Financial Literacy has no significant effect on financial inclusion among working women in Uganda was tested. The Multiple Regression results in Table 2 revealed that Financial Literacy can explain 11.9% of the variance in Financial Inclusion.

Moreover, the results confirm that Financial Literacy positively and significantly ( $B=0.383$ ,  $\beta=0.365$ ,  $p<0.01$ ) affected Financial Inclusion. Therefore, hypothesis H01: Financial Literacy has no significant effect on financial inclusion among working women in Uganda was rejected.

The regression model is:

$$FI = 2.228 + 0.091 SE + 0.383 FL \dots\dots(i)$$

$$FI = 0.114 SE + 0.365 FL \dots\dots(ii)$$

The second hypothesis, Self-Efficacy has no significant effect on financial inclusion among working women in Uganda was then tested. The hierarchical multiple regression results are in Table 2.

Table 2: Hierarchical Multiple Regression for determinants of Financial Inclusion

Variable	Model 1		Model 2		VIF
	B	$\beta$	B	$\beta$	
Constant	3.609**		2.228**		
Self-Efficacy	.187**	.232**	.091*	.114*	1.000

Financial Literacy			.383**	.365**	1.118
R2	.054		.173		
Adjusted R2	.051		.169		
R square Change	.054		.119		
F	21.240		38.917		
Sig.	.000		.000		
Sig. F Change	.000		.000		

The analysis showed that Self-efficacy can explain 5.4% of the variance in Financial Inclusion. Additionally, the results confirm that self-efficacy positively and significantly ( $B=0.091$ ,  $\beta= 0.114$ ,  $p<0.05$ ) affected Financial Inclusion. Therefore, H02: Self-efficacy has no significant effect on financial inclusion among working women in Uganda was rejected.

The Regression model is;

$$\text{Model 1: FI} = 3.609 + 0.187 \text{ SE} \dots\dots\dots (i)$$

$$\text{FI} = 0.232 \text{ SE} \dots\dots\dots (ii)$$

$$\text{Model 2: FI} = 2.228 + 0.091 \text{ SE} + 0.383 \text{ FL} \dots\dots\dots (iii)$$

$$\text{FI} = 0.114 \text{ SE} + 0.365 \text{ FL} \dots\dots\dots (iv)$$

### Discussion of the findings

Regarding the study's first objective, there is significant proof that financial inclusion and financial literacy are positively correlated among working women in Uganda. Financial attitude, skill, and behaviour were utilized to explain financial literacy. Financial inclusion was evaluated using the indicators of access, quality, and welfare.

Next, related hypothesis, hypothesis one: Financial Literacy has no significant effect on financial inclusion among working women in Uganda. The hypothesis test revealed that the success of financial inclusion is significantly and favourably influenced by financial literacy. Therefore, we fail to accept hypothesis one: Financial Literacy has no significant effect on financial inclusion among working women in Uganda.

This means that financial attitude, behaviour and skills of a working woman positively impact on three aspects of financial inclusion – welfare, access and quality. When a working woman has financial goals and knows how to achieve the set financial goals, she will be financially included. It is also true that when a working woman has the skill to correctly determine the benefits

and costs associated with a given financial product, and knows when to take up a financial product that is being offered, she gets financially included. And a working woman who enjoys reading and discussions about financial matters, and attends financial seminars will be financially included. A financially literate working woman will be able to access quality financial services that improve her wellbeing. The enhanced wellbeing will be in terms of improved access to healthcare services and amenities like Wi-Fi, health clubs and clean water, increased income, reduced costs and/ or increased revenues. In addition, such a financially literate woman will have better nutrition and housing condition, and will acquire more assets.

The findings are identical to the findings of several scholars. For example, empirical evidence confirmations that financial literacy rises the chances of financial wellbeing among youth in India (Garg & Singh, 2018b) and poor households in Uganda (Bongomin, Ntayi, et al., 2017). Moreover, the study findings agree with Mindra & Moya (2017) and Klapper et al. (2017) who assert that the financially literate persons have the capacity to make well-versed financial adoptions.

However, some earlier researches have shown conflicting results on the effect of financial literacy on achieving financial inclusion. Our results showed discrepancies with those of earlier investigations by Klapper, Lusardi, & Panos (2012); Drexler, Fischer, & Schoar (2014) and Jonsson et al.(2017). The present investigation has exposed that financial literacy, comprising of favourable attitudes, behaviours, and skills, considerably enhances the accessibility of quality financial services and upswings the welfare of working women in a developing nation.

Basing on the foregoing discussion, it is discernible that financial literacy is vital to a working woman if she is to take advantage of the available financial services. This finding supports the empowerment theory which proposes that empowerment helps people to develop competences by which they can become autonomous in decision making (Zimmerman, 2000). This study, thus, confirms that the theory of empowerment helps to explain how a working woman's level of literacy can enhance her capability to make use of the available economic information to be financially included. The position outlined in the aforementioned statement is supported by the findings put forth by Xu & Zia (2012), which contends that raising financial literacy makes it easier for those who are having trouble making ends meet to buy financial products.

Examining how self-efficacy influences working women's financial inclusion in Uganda was the second objective of this investigation. The related hypothesis; hypothesis two: Self-efficacy has no significant effect on financial inclusion among working women in Uganda was assessed. The study's conclusions pointed out that self-efficacy had a favourable and statistically significant impact on attaining financial inclusion. As such, we thus fail to accept hypothesis two. This means that improvement to the financial self-efficacy of a working women results into their enhanced financial inclusion. This implies that as a working woman's financial self-efficacy develops, she will access high quality financial services and her welfare will be positively transformed. When a working woman is confident of her ability to manage her finances and appropriately use credit to finance the unexpected expenses, then she will seize the available financial opportunities to better her quality of life. Also when a woman believes in her financial abilities, she will be assured of safety and confidentiality of her account transactions, and if she



experiences a problem with any of her transactions, her financial service provider would promptly help her out. A working woman who believes that she can use her skills to attain certain financial goals lives an improved quality of life. The improved life style of a working woman with belief in her coping financial efficacy will manifest in form of improved access to healthcare services, nutrition, amenities and housing condition, increased income, reduced costs and acquisition of more assets.

This study affords empirical support for Otto (2009) who reveals that self-confidence in money management is important for financial inclusion and Lapp (2010) who determines that financial self-efficacy reduces debt while increasing savings. This investigation also renders credence to the conclusion put forward by Rooij et al.(2012) who postulates that self-efficacy in financial issues helps implement financial plans. This survey result also agrees with the conclusion that high financial self-efficacy holders manage well their finances(Shiau, Yuan, Pu, Ray, & Chen, 2020) and self-efficacy in finance domain positively influences financial inclusion among rural and urban dweller individuals in Uganda (Mindra et al., 2017). Specifically in regard to women, this study backs earlier evidence that absence of financial self-efficacy denies women direct participation in financial market (Calcagno & Monticone, 2011). This study also provides additional confirmation of empirical conclusions from Farrell et al.( 2016) and Amatucci & Crawley (2011), who concur that women's low financial inclusion in the US and Australia respectively is related to their low self-efficacy in a financial domain. Individuals' conduct is determined by their confidence in their abilities as per Bandura's theory. This investigation gives a strong empirical evidence in favour of the claim that the social cognitive theory explains how self-efficacy affects financial inclusion among working-age female individuals in a developing country.

## **Conclusions and Recommendations**

Based on the preceding discussion, it is evident that financial literacy and self-efficacy play pivotal roles in the financial inclusion of working women in Uganda. Consequently, it is crucial to empower these women with enhanced financial skills, improved financial behavior, and positive financial attitudes to increase their likelihood of financial inclusion.

The researcher asserts that working women should cultivate a belief in their ability to leverage existing financial services for personal benefit. Specifically, they need to trust their capacity to manage finances effectively, utilize credit for unforeseen expenses, and navigate financial challenges to make the most of available financial services.

This study sheds light on the determinants of financial inclusion among working women in Uganda, forming the basis for recommendations to policymakers and practitioners. The government of Uganda, through its Ministries, Departments, and Agencies (MDAs), is encouraged to purposefully devise policies fostering financial literacy among working women. This can be achieved by integrating financial literacy content, focusing on financial behavior, skills, and attitudes, into the curricula of institutions with female learners.

Furthermore, initiatives targeting working women to boost their confidence in utilizing existing financial services should be actively supported. Such initiatives might involve leveraging role models, encouraging women to share success stories of achieving financial inclusion through self-efficacy. Practical training on utilizing mobile money services could be particularly beneficial in strengthening self-belief.

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