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Self-efficacy as a mediator of Financial Literacy and Financial Inclusion among Working Women in Uganda

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Abstract

Several scholarly works tend to agree that financial literacy matters for financial inclusion. Little, however, is known about the mediating role of self-efficacy on the association between financial literacy and financial inclusion in the female demographic. This study sought to close that gap in knowledge among working women in Uganda. The study used a correlational cross-sectional design. A sample size of 384 was derived from a population of 327,930 working women from all the five divisions of Kampala district. A structured questionnaire was used to obtain primary data. Sobel test and medgraph were utilised to evaluate the mediation study hypothesis. The results showed that financial literacy is a significantly positive direct and indirect predictor of financial inclusion with self-efficacy as a positive and significant mediator. Sobel test is significant with results showing that financial literacy is both a positive and significant direct and indirect predictor of financial inclusion with self-efficacy as a positive and significant mediator. Findings from this inquiry underline the critical importance of financial literacy and self-efficacy in promoting financial inclusion among working women in a developing country, Uganda. Government of Uganda together with other stakeholders such as associations of financial institutions, donors and training institutions should deliberately design policies that will enable working women to be financially literate focusing on financial attitudes, skills and behaviour. This will enhance the women's belief in their ability to take advantage of the financial services that are available in the market.

Keywords: *Financial literacy, Self-efficacy, Financial Inclusion, working women*

Introduction

Several scholarly works tend to agree that financial literacy matters for financial inclusion. For example, one can find confirmation that financial literacy rises the chances of saving (Sekita, 2011) and investment (Beckmann, 2013). It has also been shown that the more financially literate one is the better his/her welfare, even in retirement (Taft et al., 2013; Rooij et al., 2012). There is also confirmation that when people are exposed to enactive mastery tutorial, it increases their intentions to engage in safe e-banking behaviors (Waddell et al., 2014). Klapper et al. (2017) and Mindra & Moya (2017) opine that the financially literate persons have the capacity to make well-versed financial adoptions. In spite of the general consensus that

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financial literacy positively favourably affects financial inclusion, little is known on how that relationship is mediated by self-efficacy, especially in the female demographic.

Scholars do not define financial literacy similarly. It is Organization for Economic Co-operation and Development (2011) that defines financial literacy in detail as a combination of attitude, skill, knowledge, awareness, and behaviour necessary for making judicious financial decisions that eventually improve the financial well-being of a person. The current literature has yet to establish a conclusive method for measuring financial literacy. But scholarly works by Bongomin et al.(2018) and Bongomin et al. (2020) comprehensively conceptualised financial literacy using functional (attitudes and behaviour) and non-functional (skills and knowledge) measures. This study espoused financial attitudes, skills, behaviour and knowledge as financial literacy measures.

The individual trait of self-efficacy is a frequently used metric (e.g., Afzal et al., 2019; Shiau et al., 2020; Herawati et al., 2020)) that indicates how people perceive their capacity to accomplish the proper action so as to realize an explicit level of performance (Bandura, 1986). Self-efficacy is all about an individual belief that he can use his skills to attain certain goals within a given context. According to Bandura (1986) and Amatucci & Crawley (2011), beliefs in coping efficacy are situational or domain specific. As a result, the current study clarifies the idea of self-efficacy in the setting of finance, more particularly, financial self-efficacy (FSE). According to Herawati, Candiasa, Yadnyana, & Suharsono (2020), financial self-efficacy is a person's belief in their ability to take use of the financial services they have access to. Utilizing the universal self-efficacy scale built by Schwarzer and Jerusalem (1995), which relied on Bandura's (1977) idea of an innovative self-efficacy measure, Lown Lown (2011) advanced a Financial Self-Efficacy Scale (FSES), which was rigorously verified. This study adopted Lown's proposed financial self-efficacy scale to operationalize of self-efficacy.

Also, there is no congruence among different scholars on how to define financial inclusion (e.g. Sethi & Acharya, 2018; Truc & Nguyen, 2020). This study adopts the only comprehensive definition that is advanced by Centre for Financial Inclusion (CFI). CFI proposes that financial inclusion is a situation whereby each and every person with capability to utilize financial services accesses all the available financial services that are of quality and affordable in a dignified, respectful and convenient manner (Zuehlke, 2015). Relatedly, different researchers have measured financial inclusion incongruously (like

Katoroogo, 2016; Zuehlke, 2015; Truc & Nguyen, 2020). This study espouses the measures of financial inclusion as used by Bongomin et al. (2017) who carried out a study among poor households in Uganda. The adopted measures of financial inclusion are quality, access, welfare and usage.

In Uganda, women constitute the majority of the adult population at 54% (FinScope Uganda, 2018), dominant the working population at 51% and live longer than men by approximately two years (Uganda Bureau of Statistics, 2018) yet 23 percent of them are financially excluded compared to 22 percent men (FSD Uganda, 2018). If such a large portion of women continues to be financially excluded, poverty and social disharmony would be perpetuated in Uganda. Though there is a general consensus that financial literacy positively favourably affects financial inclusion (e.g. Olaniyi, 2015; Bongomin, Munene, Ntayi, & Malinga, 2018 and Bongomin et al., 2020), little is known on how that relationship is mediated by self-efficacy in women. This investigation sought to close the identified knowledge gap by examining the mediating role of self-efficacy on the association between financial literacy and financial inclusion among working women in Uganda.

Literature Review

There is empirical support for the intervening function of self-efficacy to the relation between knowledge, behavior, skills, or attitudes, and performance of tasks. People seldom behave as ideally expected because the cognitive mechanism mediates the connection between knowledge and action (Bandura, 1982). This is augmented by Appelbaum & Hare (1996) who examined the usefulness of self-efficacy in human resource management and concludes that self-belief in one's ability significantly mediates the relation between personal goal-setting and performance. Drnovšek et al. (2010) theorizes that negative thinking from bygone let-down hampers the prospective use of past acquired knowledge. Sanusi, Iskandar, Monroe, & Saleh (2018) argue that developed skills and knowledge upsurges the self-efficacy of an individual to function in a certain way which ultimately improves performance of the same tasks.

Scientifically designed studies that have evaluated the intervening result of self-efficacy on the connection betwixt the financial literacy and financial inclusion are very scarce. One study by Mindra & Moya (2017a) determines that whereas financial self-efficacy somewhat mediates the relationship between financial literacy and financial inclusion, the relationship between financial attitude and financial inclusion is entirely mediated by financial self-efficacy in rural and urban dwellers. The other study is by Limbu & Sato (2019)

which discovered that credit card literacy improves the financial wellness of students in the USA colleges, particularly those who have few credit cards, as mediated by financial self-efficacy. With this dearth in scientific evidence, our systemic understanding of financial inclusion persists. This empirical inquiry contributes to knowledge by questioning the intervention of self-efficacy on the link between financial literacy and financial inclusion among working women in a developing country, Uganda.

Thus, the null Hypothesis, *H₀: Self-efficacy has no significant effect on the relationship between financial literacy and financial inclusion among working women in Uganda.*

The alternative hypothesis, *H₁: Self-efficacy has a significant effect on the relationship between financial literacy and financial inclusion among working women in Uganda.*

Methodology

This study used a correlational cross-sectional design. The choice of the design was dictated by the fact that the study sought to test the hypothesis, works well with questionnaire tool and studies of large sample in a reasonably short time.

The target population comprised of the working women (+15 years) in all the five divisions of Kampala district in Uganda totalling 327, 930 (Uganda Bureau of Statistics, 2018). Working women are defined as female adults who do some work for pay, profit or family gain, in cash or in kind; or have an enterprise or attached to a job where they are ‘temporarily’ away during the period (UBOS, 2020). Working women were considered because their population size is known unlike the non-working women. Kampala district was considered because it has the highest population (+10 years) of any district in Uganda, highest access to phone, computer and internet, and enjoys the highest level of literacy in the whole country (Uganda Bureau of Statistics, 2014).

Using Krejcie & Morgan (1970) at a 5% level of significance, a sample size of 384 is derived from a population of 327,930 working women. All the five divisions of Kampala district, were used to constitute the five clusters where 77 working women per division were conveniently sampled to form a total sample size of 384. Convenience sampling is appropriate for large sample sizes. In this study, a working woman is the unit analysis and inquiry.

A structured questionnaire was developed from extant literature and improved by the input from experts in the field and proposed respondents through a pilot study. Thus ensuring content validity of the tool. A 6 point likert scale going from (1) strongly disagree to (6) strongly agree was used to measure the constructs. Exploratory factor analysis (EFA) was done to evaluate the validity of the test's items. EFA was conducted for financial literacy, self-efficacy and financial inclusion among working women in Uganda. Principal component analysis was utilised to extract the items which were then rotated employing Varimax with the Kaiser Normalization method to assist in the translation of the extracted items. The convergent validity, discriminant validity and composite reliability of the data collection tool were tested and confirmed by Confirmatory Factor Analysis (CFA) according to Hair et al. (2014). Sobel test together with medgraph were utilised to evaluate the mediation study hypothesis.

Findings and Results Discussions

The investigators obtained 382 responses out of the targeted sample of 384, which means a response rate of 99.5%. This high return rate is credited to the refined questions after pretesting the tool, the support and permission that the researcher obtained from the local market authorities where women worked before talking to the respondents and the availability of the option to use either tool in English or Luganda language by the respondents.

Table 1: Level of Income

Level of Income	Frequency	%	Cumulative %
Less than Ugx 50,000	26	7.0	7.0
Ugx 50,000 - Ugx 500,000	192	51.3	58.3
Ugx 500,001- Ugx 1,000,000	99	26.5	84.8
Ugx 1,000,001-UgX 1,500,000	24	6.4	91.2
Ugx 1,500,001- Ugx 2,000,000	10	2.7	93.9
Ugx 2,000,001 – Ugx 2,500,000	10	2.7	96.5
Ugx 2,500,001 and above	13	3.5	100.0
Total	374	100.0	

The expressive statistics detailed in Table 1 above make known that the level of income after all deductions among working women is skewed to the right with more than half of the respondents (51.3%) earning from Ugx 50,000 to Ugx 500,000 per month. A small portion of the working women (15.2%) earns more than one million shillings in a month. This net income distribution is not normal, and more needs to be done to bring more working women into the national targeted income per capita under current prices of 954 USD (equivalent of about Ugx 305,000 per month) (UBOS, 2021).

Table 2 above descriptive statistics shows mobile money services as the most popular financial services (42.0%), followed by the Bank or Microfinance Institution (27.5%) and Saccos (13.7%). The more advanced financial services like Insurance Service (7.3%), Pension Funds (3.1%), Capital Markets (0.3%), Forex Bureaus (2.7%) and Money Transfer Institutions (2.5%) are not commonly used by working women. This trend could be due to the not fully developed financial markets in the country and the relatively low levels of income among most working women. In addition, the country had just come out of the 2-year lock down due to Covid-Pandemic, this could have affected the way working women utilised the advanced financial services.

Table 2: Financial Service used

Service	Frequency	Percentage
Bank or Microfinance Institution	162	27.5
Savings and Credit Cooperatives (Saccos)	81	13.7
Mobile Money Service	248	42.0
Insurance Service	43	7.3
Pension Funds (E.g. employment-based pension funds, NSSF, etc.)	18	3.1
Capital Markets	2	0.3
Forex Bureaus	16	2.7
Money Transfer Institutions such as Western Union and MoneyGram.	15	2.5
Other (specify, e.g., savings groups, money leaders and Village Savings and Loan associations)	5	0.8
Total	590	100

Testing the hypothesis

The researchers used Sobel test and Medgraph to test the mediation study hypothesis. Using the Baron & Kenny (1986) strategy as shown in Table 3 and figure 1, Sobel test is significant (Sobel z-value = 2.151671, $p = 0.031423$) with results showing that financial literacy (0.365, 0.037) is both a positive and significant direct and indirect predictor of financial inclusion with self-efficacy as a positive and significant mediator (0.232). The null hypothesis H_0 : Self-efficacy has no significant effect on the relationship between financial literacy and financial inclusion among working women in Uganda, is therefore not accepted.

Table 3: Sobel test (Sobel, 1982) and Medgraph(Jose, 2013) for Mediation

Type of mediation		Significant				
Sobel z-value		2.151671	$p =$	0.031423		
95% Symmetrical Confidence interval						
	Lower	0.00344				
	Higher	0.07373				
Unstandardized indirect effect						
	a*b	0.03858				
	se	0.01793				
Effective Size measures						
<u>Standardised Coefficients</u>				<u>R² Measures (Variance)</u>		
Total:		0.402		0.161		
Direct:		0.365		0.119		
Indirect:		0.037		0.041		
Indirect to Total ratio		9.216		0.259		

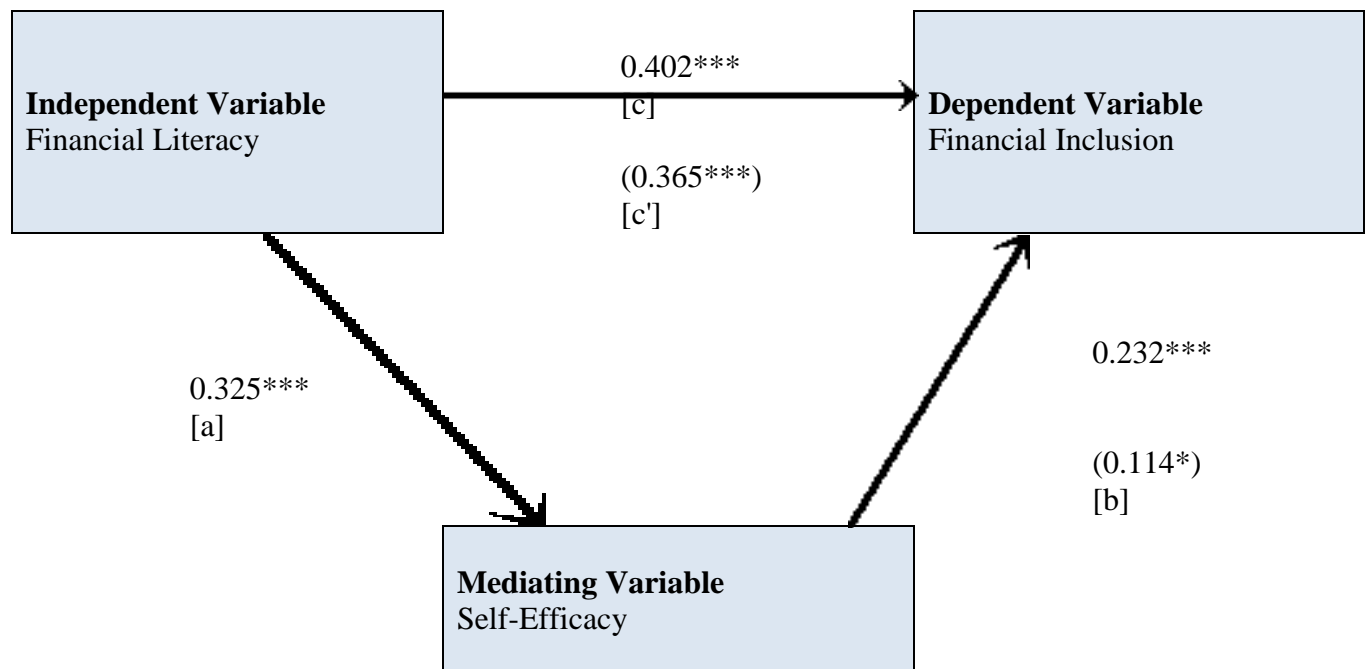


Figure 1: Medgraph (Jose, 2013) for Mediation

Financial Literacy, Self-efficacy and financial inclusion

This study's objective aimed to assess how self-efficacy affects the connection between financial literacy and financial inclusion in working women from Uganda. The corresponding mediation testing null hypothesis was H_0 : Self-efficacy has no significant effect on the relationship between financial literacy and financial inclusion among working women in Uganda.

A significant direct effect of self-efficacy on financial inclusion, a significant indirect effect of self-efficacy on the association between financial literacy and financial inclusion, and a significant overall effect of self-efficacy are all present. An indication that self-efficacy fully mediates the effects of financial literacy on financial inclusion. Therefore, we fail to accept the hypothesis, H_0 : Self-efficacy has no significant effect on the relationship between financial literacy and financial inclusion among working women in Uganda. Self-efficacy has a big impact on how financial literacy and financial inclusion are related.

This investigation renders support to the classical work by Bandura (1982) who argued that people seldom behave as ideally expected because the cognitive mechanism mediates the connection between literacy and action. Later Appelbaum & Hare (1996) also conclude that self-efficacy beliefs significantly mediates the relation between personal goal-setting and performance. The verdicts of this study support the propositions found in Sanusi, Iskandar, Monroe, & Saleh (2018) study who conjecture that developed skills upsurges the self-efficacy of individuals to function in a particular way which in turn improves performance of the same tasks. This study complements the conclusions of Limbu & Sato (2019), which witness to the beneficial effects of credit card literacy on students' financial wellness, particularly among those who use credit cards seldom, as mediated by financial self-efficacy.

According to Mindra & Moya (2017b) research, financial self-efficacy can somewhat mediate the relationship between financial literacy and financial inclusion among Ugandans living in urban and rural areas. It is interesting, though, that the current study, which was limited to Ugandan working women, shows that self-efficacy completely mediates the link between financial literacy and financial inclusion.

Conclusions and Recommendations

The results indicate that the association between financial literacy and financial inclusion is fully mediated by self-efficacy. Financial literacy predicts financial inclusion, and self-efficacy acts as a channel for that prediction. Findings from this inquiry underline the critical importance of financial literacy and self-efficacy in promoting financial inclusion among working women in a developing country, Uganda. This means that when financial literacy improves among working women, their self-efficacy is established, and eventually the same women will increasingly be financially included.

This study has authenticated that self-efficacy and financial literacy are important drivers of financial inclusion for working women. In this regard, government of Uganda together with other stakeholders such as associations of financial institutions, donors and training institutions should deliberately design policies that will enable working women to be financially literate focusing on financial attitudes, skills and behaviour. The curriculum of training institutions where women are targeted should deliberately incorporate a component of financial literacy with a view of enabling the learners to be financially included in future. Private and public bodies concerned with deepening financial inclusion should train working women on how to set and achieve financial goals, determine the costs and benefits a financial product offers, and judge the right time to take up a given financial product or service.

This study provides a candid procedural process where each of the underlying constructs is clearly defined and both tests of validity and reliability are done in order to refine the measurement scales by utilising confirmatory factor analyses. The comparability conclusions between theoretical and empirical concepts were confirmed by the results. Hence, this study affords a sound premise for prospective verifiable research about financial inclusion by ably linking the adopted methodologies with the refined assessment items.

Secondly, a crucial contribution to empirical research was made by measuring the impact of financial literacy and self-efficacy on financial inclusion in terms of the metrics of quality, usage, access, and wellbeing among adult female workers in Uganda. Financial literacy along with self-efficacy domiciled in finance, have been found to be essential components for assuring working women's financial inclusion.

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