Drivers of Digital Financial Inclusion in Sri Lanka: Insights from the Global Findex Database - 2025

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De Mel, L.V.S.K.[1*]

[1*]Department of Economics and Statistics, Sabaragamuwa University of Sri Lanka, Sri Lanka

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Abstract

Digital financial inclusion improves the lives of marginalized people, enhances economic growth, and reduces poverty by ensuring sustainable development. It is important to study the key drivers of digital financial inclusion, as financial inclusion and digital gaps exist in Sri Lanka's socio-economic context and can limit equal access to and use of digital financial services. Therefore, the study intends to identify the key determinants of access and usage of digital financial services in Sri Lanka. To attain this objective, the study collected secondary data employing the Global Findex Database 2025. Data analysis was performed using binary logistic regressions by compiling two dimensions of access and usage of digital financial inclusion, and eight models were derived representing different indicators of these two dimensions. Thus, results revealed that females are less likely to have access to certain digital financial services, while no significant relationship is observed between gender and the usage of digital financial services. Furthermore, the findings indicate that age has a negative and statistically significant effect on both access to and usage of digital financial services. Moreover, higher educational attainment and participation in the economically active population (workforce) increase the likelihood of accessing and using digital financial services. However, the results also show that residing in the rural sector has a significant negative relationship only with access to a digitally enabled account and the use of digital merchant payments, whereas its relationship with accessing and using debit and credit cards, as well as making or receiving digital payments, is statistically insignificant. Accordingly, the present study has generated new empirical findings for the academic literature by providing key strategies to advance digital financial inclusion in Sri Lanka.

Keywords: Digital Financial Inclusion, Digital Financial Services, Digital Gender Gap in Financial Inclusion, Economic Growth and Poverty Reduction, The Global Findex Database

INTRODUCTION

The financial sector is critical as it contributes to the economic growth of a country (Bathula & Gupta, 2021). In the past few years, the digital financial sector has recorded a substantial change that has challenged the use of traditional financial services (Ismael & Ali, 2021). Digital finance plays a crucial role in the lives of people from all walks of life, and it enhances financial inclusion by improving economic growth and stability (Durai & Stella, 2019). Financial inclusion provides people and businesses with greater access and use of cost-effective financial services that are delivered in a responsible and sustainable manner (World Bank, 2025). It enables sustainable development, mitigates poverty, and promotes high living standards and well-being among people (Central Bank of Sri Lanka, 2021), facilitates businesses, and enhances investment more (Gamage & Kumudumali, 2019). Digital financial inclusion is the newest version of financial inclusion in the evolution of the financial system (Tay et al., 2022), and it provides a pathway for financially excluded individuals to access and use formal financial services by utilizing digitally enabled tools and platforms (Ozili, 2018). Moreover, digital financial inclusion enhances economic participation, promotes credit and savings access (Ozili, 2022), reduces costs and queues by allowing efficient access (Narmadha, 2021), while alleviating rural-urban income disparities (Ji et al., 2021).

However, the World Bank (2024) points out that in Sri Lanka, account ownership declined by 7% in 2024 compared to 2021, and only 3% of them have a mobile money account, indicating limited access and usage of digital financial services. Additionally, it highlights a gender gap in the usage of digital financial services in Sri Lanka, revealing that women have limited access to and usage of digital financial services compared to men. These findings directly reflect the key issue of insufficient digital financial inclusion in Sri Lanka. Moreover, as indicated by the Department of Census and Statistics (2024), the digital literacy rate of Sri Lankans is 65%, but this shows that more than 30% of them still lack digital literacy. The annual financial literacy survey conducted by the Central Bank of Sri Lanka (2021) reports that only 57.9% of adults are financially literate, and more than 40% adults have a low level of financial literacy. Institute of Policy Studies of Sri Lanka (2025) signified that there is an urgent need to reduce the digital divide, enhance digital and financial literacy among all segments of the population, and incorporate digital payment systems for essential services. These results collectively imply that in Sri Lanka, there are

* **Corresponding author:** Tel.: +94 (76) 998 0817; Email: shahandemel@gmail.com
https://orcid.org/0009-0007-4467-6861

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still digital, financial literacy, and socioeconomic gaps in digital financial inclusion, and individuals face different obstacles when they access and use digital financial services.

De Mel and Priyanath (2023) emphasize that individuals, mostly among underprivileged or rural individuals, face barriers when they are using and accessing digital tools, platforms, and infrastructure to fulfill their financial goals. Moreover, De Mel and Shantha (2025) elaborated that due to barriers, women are struggling to utilize digital financial services. Furthermore, Nizam and Rashidi (2025) reveal that barriers to digital financial services limit the usage and adoption of digital financial services. Furthermore, there are significant knowledge gaps that exist in digital financial inclusion studies, such as insufficient focus on digital finance, limited research in the Sri Lankan context, limited use of globally accepted datasets, and a lack of separate examination of access and usage dimensions of digital financial inclusion. Thus, studying key drivers of digital financial inclusion is important as it facilitates economic and social outcomes among marginalized individuals. Therefore, the present study aims to identify how socio-economic determinants impact digital financial inclusion in Sri Lanka, utilizing the Global Findex database 2025 to identify the current level of Sri Lanka, facilitating policymakers, while filling knowledge gaps.

LITERATURE REVIEW

Financial Inclusion

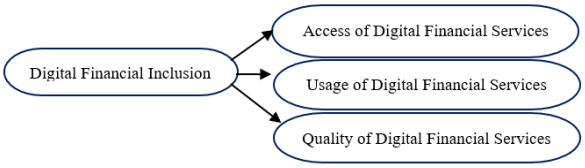
Financial Inclusion (FI) refers to meeting individuals and businesses' needs; they can have access to cost-effective financial products and services, and it contributes to employment, economic growth, women's empowerment, and reducing poverty (World Bank, 2025). It is also called inclusive finance, and it seeks to reduce obstacles among businesses and individuals providing formal financial products and services to achieve economic outcomes while improving living standards (Central Bank of Sri Lanka, 2021).

Digital Financial Inclusion

As digital technologies play a vital role in the context of the global economy, digital financial inclusion serves a crucial role in economic development among developing economies (Becha et al., 2025). Ozili (2018) highlighted that digital financial inclusion refers to delivering digital financial services to financially excluded or marginalized people by utilizing digital devices and tools. Also, Saxena and Thakur (2022) reveal that it provides convenient access to people to use formal financial services. The use of digital financial services to promote financial inclusion can be considered digital financial inclusion. Digital financial inclusion leads to mitigating poverty, enhancing sustainable development, and facilitating the use and access to digital financial services through digital channels and tools (Ozili, 2022). Moreover, Ozili (2022) demonstrates that digital financial inclusion generates benefits such as empowering marginalized people of society, enhancing women's participation in economic activities, and promoting the economic growth of any economy. Furthermore, Becha et al. (2025) mentioned that digital financial inclusion facilitates the management of resources efficiently and sustainable production practices.

There are three dimensions of digital financial inclusion: access to digital financial services, usage of digital financial services, and quality of digital financial services (Goh et al., 2023; Ismael & Ali, 2021; Khera et al., 2022). Access means how people interact with financial services, and it can be measured by using the holding of mobile phones, credit cards, debit cards, access infrastructure, etc. (Goh et al., 2023). Also, usage refers to the extent to which consumers utilize financial services. (Central Bank of Sri Lanka, 2021), and it can be measured using the use of a mobile money account and making different payments by using devices, etc. Moreover, quality refers to the standards of financial services to fulfill the financial needs of individuals. (Central Bank of Sri Lanka, 2021).

Figure 1: Digital Financial Inclusion Dimensions



Source: Ismael & Ali, 2021; Khera et al., 2022; Goh et al., 2023

Digital Agent Theory of Financial Inclusion

Digital agent theory has broad relevance to digital financial inclusion, and it defines how digital financial services providers connect with their users to help them with digital financial services usage and adoption of digital financial services (Ozili, 2024). The present study is framed with this theory, and it also discusses that financial inclusion not only depends on digital services but also on the abilities of digital agents to enhance financial education, minimize barriers to access, and build trust in the digital system. Thus, based on digital agent theory, individual characteristics influence how people interact with digital agents. Therefore, socio-economic determinants such as age, employment status, education, gender, and residential sector are used to identify differences in people's ability to use and access digital financial services via digital agents. Ozili (2024) identifies the relationship between the principles of financial inclusion and digital agents, which explains how incorporating suitable digital technologies is explained in this theory related to financial inclusion. Accordingly, via this perspective, the current study examines the drivers (economic and demographic factors) of access to and use dimensions of digital financial inclusion.

Empirical Evidence: Determinants of Digital Financial Inclusion

Nandru et al. (2021) revealed that socio-demographic factors, especially employment status, age, education, gender, and income, significantly impacted the access dimensions of digital financial inclusion. Also, Alvarez-Franco et al. (2025) highlighted that these socio-demographic factors significantly influence digital financial inclusion. Mugume and Bulime (2022) show that those who trust mobile money agents have more access to and use of digital financial platforms, and they discussed that male digital users who belong to the middle-aged group have higher digital financial inclusion. Moreover, Bathula and Gupta (2021) point out that being poor and female is less likely to use mobile banking, but they are more likely to use traditional banking. Also, they mention that workforce participation and education level have a

positive association with access and usage of digital financial services. Wandeda et al. (2023) demonstrate that in Kenya, the usage of digital finance is more financially stable among women. Ali and Ghildiyal (2023) suggest that among adult persons in India, higher education, age, income, and employment status are associated with a higher likelihood of using digital financial services. Kandari et al. (2021) imply that among rural households in India, compared with men, women have less usage of mobile phones. The study by Kumar and Vasuki (2023) provides evidence of a positive impact of digital financial services among working women. Conrad et al. (2019) show that individuals in urban areas, having a higher education, being more digitally literate, and younger are more likely to engage in the use of internet banking. Thus, these findings highlight that results are not always the same. Typically, factors such as employment status and education have a positive impact, while age and gender yield mixed results. Moreover, past studies have not clearly identified the access and usage dimension as a factor affecting. Accordingly, it can be hypothesized that there is a relationship between economic and demographic factors such as age, education, employment status, gender, and residential sector with the access to and use dimensions of digital financial inclusion.

H1: There is a relationship between age, education, employment status, gender, and residential sector with access to digital financial services.

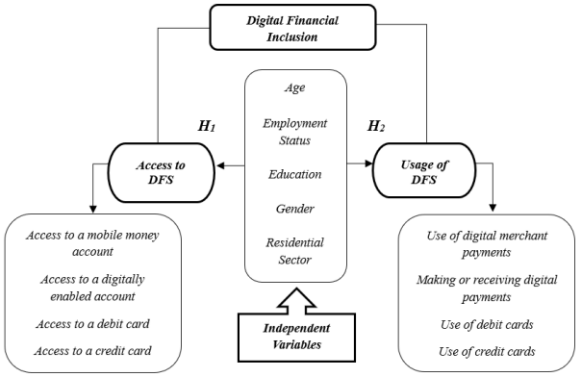
H2: There is a relationship between age, education, employment status, gender, and residential sector with the usage of digital financial services.

Research Gaps

Different scholars observed and found different determinants or drivers for digital financial inclusion (Nandru et al., 2021; Alvarez-Franco et al., 2025; Mugume & Bulime, 2022; Bathula & Gupta, 2021; Wandeda et al., 2023; Ali & Ghildiyal, 2023; Kandari et al., 2021) in various countries, such as Kenya (Wandeda et al., 2023), India (Nandru et al., 2021; Ali & Ghildiyal, 2023), Uganda (Mugume & Bulime, 2022). Although knowledge about digital financial inclusion and its determinants is growing in different countries, several knowledge gaps can be identified. First, as per the researcher's best understanding, there is limited empirical knowledge in the Sri Lankan context. Second, most scholars have studied formal finance or financial inclusion without considering digital finance or digital financial inclusion in their studies. Although some authors have utilized primary data collection method in related to the current study (Narmadha, 2021; Saxena & Thakur, 2022; De Mel & Priyanath, 2023; Kandari et al., 2021), different scholars have employed secondary data collection methods in their studies such as the Central Statistics Agency (BPS) & Indonesian Family Life Survey (IFLS) (Alwahidin et al., 2023) the China Household Financial Survey (CHFS) (Li & Liu, 2023) which is leading to third gap of limited usage of globally comparable datasets such as the Global Findex database to identify the determinants of digital financial inclusion. In addition to these gaps, previous studies do not explain and analyze the access and usage dimensions of digital financial inclusion separately to gain clear insights. Therefore, the present study fills these knowledge gaps to generate new empirical findings for academic literature.

Thus, incorporating literature, the study constructed a conceptual model, as shown in Figure 02 below. According to the model, the explanatory variables are education, age, employment status, gender, and residential sector, while the dependent variable is digital financial inclusion. Accordingly, the study analyzes eight models using the items of different dependent variables of two dimensions of digital financial inclusion, such as access to digital financial services (access to a mobile money account, access to a digitally enabled account, access to a debit card, access to a credit card) and usage of digital financial services (use of digital merchant payments, making or receiving digital payments, use of debit cards, use of credit cards) (Goh et al., 2023; Ismael & Ali, 2021; Khera et al., 2022).

Figure 2: Conceptual Model of the Study



Source: Developed by the Researcher, 2026

MATERIALS AND METHODS

The ontology or nature of reality of the research problem of the current study is objective meaning that it can be justify the problem of the study using theories and concepts. Accordingly, it belongs to the positivist philosophy, and utilizing a deductive approach, the present study is performed with quantitative methods. Thus, this study collected secondary data from the 2025 Global Findex database conducted by Gallup, Inc., which consists of 144,090 adults from 141 economies collected through face-to-face interviews. This survey collected a sample size of 1000 from Sri Lanka utilizing multi-stage sampling by selecting units by geography or population size or using random sampling methods, which was used in this study. The variable description of the study is indicated in Table 01 below.

Table 1: Variable Description of the Study

Dependent variable: Access	***Y***	Access to a mobile money account	Dummy	1 = Yes, 0 = No
		Access to a digitally enabled account	Dummy	1 = Yes, 0 = No
		Access to a debit	Dummy	1 = Yes, 0 = No
		Access to a credit card	Dummy	1 = Yes, 0 = No

Dependent variable: Usage		Use of digital merchant payments	Dummy	1 = Yes, 0 = No
		Making or receiving digital payments	Dummy	1 = Yes, 0 = No
		Use of debit cards	Dummy	1 = Yes, 0 = No
		Use of credit cards	Dummy	1 = Yes, 0 = No
Independents Variables	*X1*	Gender	Dummy	Female = 1, Male = 0
	X2	Age		Continuous
	X3	Education	Dummy	Secondary education or more = 1 Primary education or less = 0
	X4	Employment Status	Dummy	In the workforce = 1 Not in the workforce = 0
	X5	Residential Sector	Dummy	Rural = 1 Urban = 0

Source: Global Findex Database, 2025

Note: As per the above Table 01, the variables "access to a credit card," "use of debit cards," and "use of credit cards" were originally recorded with four response categories: "Yes," "No," "Don't know," and "Refused." For the analysis, the responses "Don't know" and "Refused" were recoded as "No.".

Econometric Model: The study analyzes eight binary logistic regression models using items from two dimensions of digital financial inclusion. To assess access to digital financial services, the study used indicators such as access to a mobile money account, access to a digitally enabled account, access to a debit card, and access to a credit card. To examine the usage of digital financial services, the study employed items such as use of digital merchant payments, making or receiving digital payments, use of debit cards, and use of credit cards.

$$\text{Logit}(y) = \ln\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

Multicollinearity was tested by using Variance Inflation Factors (VIF) and Tolerance values, while using the pseudo-R^2 tested the goodness-of-fit of models.

RESULTS AND DISCUSSION

Table 02 below highlights the descriptive statistics of the variables of the study. It reveals that the average age of the sample is about 48 years. Most of the sample units are moderately educated, and most of them are females, while approximately more than 42% them are included in the economically active segment. However, this indicates that more than 55% of sample units are unemployed, even though they are in the working population, highlighting a critical issue. Furthermore, the table indicates a digital financial inclusion gap, revealing lower mobile money access and moderate digital access, while having limited digital payment usage.

Table 2: Descriptive Statistics Table

Variables	Observation	Mean	Std. dev.	Min	Max
Explanatory Variables					
Gender	1,000	.597	.4907462	0	1
Age	1,000	48.135	19.06658	15	100
Education	1,000	.666	.4718757	0	1
Employment Status	1,000	.427	.4948898	0	1
Residential Sector	1,000	.63	.4830459	0	1
Access					
Access to a mobile money account	1,000	.027	.1621644	0	1
Access to a digitally enabled account	1,000	.32	.4667096	0	1
Access to a debit card	1,000	.408	.491709	0	1
Access to a credit card	1,000	.073	.2602667	0	1
Usage					
Use of digital merchant payments	1,000	.131	.3375692	0	1
Making or receiving digital payments	1,000	.479	.4998088	0	1
Use of debit cards	1,000	.305	.4606378	0	1
Use of credit cards	1,000	.047	.2117447	0	1

Source: Developed by the Researcher based on Findex data, 2025

Table 3: Factors Affecting Access to a Mobile Money Account

Access: Model 01					
Number of obs	= 1,000	Pseudo R2			= 0.1728
LR chi2(5)	= 42.90	Log likelihood			= -102.70636
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value -P>|z|*	*Std. Err.*
Dependent Variable - *Access to a mobile money account (dummy)*					
Explanatory Variables					
Being female(dummy)		.1740135	-.0432251	0.002	.0897534
Age (continuous)		.9648358	-.0008849	0.012	.0128474
Having secondary education or more(dummy)		3.783151	.0328907	0.096	2.919493
Being in the workforce (dummy)		2.217693	.0196883	0.087	1.00097
Being rural(dummy)		.8226305	-.0048264	0.633	.3360674
Cons		.0560762	-	0.005	.0576247

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category / Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level: 5%

According to Table 03 above, the overall model is statistically significant (LR chi2(5) = 42.90, $p < 0.05$). Results also reveal that only being female and age are significant variables at the 5% level. Based on the marginal effect, being female reduces the probability of accessing a mobile money account by 4.3 percentage points, indicating that being females are less likely to have access compared with males to a mobile money account. Moreover, it highlights that age has a negative and statistically significant effect, and with every additional age, the likelihood of having access to a mobile money account decreases by about 0.088 percentage points, indicating older people are slightly less likely to have access to a mobile money account.

Table 4: Factors Affecting Access to a Digitally Enabled Account

Access: Model 02					
Number of obs	= 1,000	Pseudo R2			= 0.1425
LR chi2(5)	= 178.70	Log likelihood			= -537.51713
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - *Access to a digitally enabled account(dummy)*					
Explanatory Variables					
Being female (dummy)		.7363461	-.0555029	0.049	.1151099
Age (continuous)		.9752351	-.0045476	0.000	.0042376
Having secondary education or more (dummy)		3.704274	.2374747	0.000	.734527
Being in the workforce (dummy)		2.257568	.1476706	0.000	.3508083
Being rural (dummy)		.7157491	-.0606479	0.028	.1100478
Cons		.5630842	-	0.088	.1894975

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

As per Table 04 above, the overall model is statistically significant (LR chi2(5) = 178.70, $p < 0.05$) and highlights that all explanatory variables are significant at the 5% level. Based on the marginal effect, being female reduces the probability of accessing a digital-enabled account by about 5.55 percentage points, indicating that being female are less likely to have access compared with males.

Also, when age increases by one year, the probability of having access to a digitally enabled account reduces by about 0.45 percentage points, suggesting that when people get older, their access to a digitally enabled account decreases. Moreover, it highlights that having secondary education or more increases the probability of access to a digitally enabled account by about 23.74 percentage points, showing that when people are educated, it leads to more access rather than those who have primary education or less. Furthermore, being in the workforce increases the probability of accessing a digitally enabled account by 14.76 percentage points, showing that economically active individuals are likely to have access to digitally enabled accounts. Additionally, the results demonstrate that being rural reduces the likelihood of having access to a digitally enabled account by about 6.06 percentage points, implying that rural people are less likely to have access compared to urban individuals.

Table 5: Factors Affecting Access to a Debit Card

Access: Model 03					
Number of obs	= 1,000	Pseudo R2			= 0.1108
LR chi2(5)	= 149.83	Log likelihood			= -601.20492
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - *Access to a debit card(dummy)*					
Explanatory Variables					
Being female (dummy)		.8197442	-.0412497	0.176	.120847
Age (continuous)		.9802726	-.004135	0.000	.003914
Having secondary education or more (dummy)		2.964889	.2255542	0.000	.5012002
Being in the workforce (dummy)		2.10314	.1542859	0.000	.307067
Being rural (dummy)		.8458017	-.0347555	0.246	.1225035
Cons		.732787	-	0.319	.2286985

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

Based on the results in Table 05, the overall model is statistically significant (LR chi2(5) = 149.83, p < 0.05) and reveals that age, having secondary education or more, and being in the workforce are significant at the 5% level. Based on the marginal effect, when age increases by one year, the probability of access to a debit card decreases by about 0.41 percentage points, implying that older people are less likely to have access to a debit card. Also, having secondary education or more increases the probability of access to a debit card by about 22.55 percentage points, indicating higher education improves access more. Moreover, being in the workforce increases the probability of access to a debit card by about 15.42 percentage points, highlighting that being in the economically active segment enhances access.

Table 6: Factors Affecting Access to a Credit Card

Access: Model 04					
Number of obs	= 1,000	Pseudo R2			= 0.0823
LR chi2(5)	= 43.00	Log likelihood			= -239.83177
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - *Access to a credit card(dummy)*					
Explanatory Variables					
Being female (dummy)		.8457219	-.0108754	0.518	.2192793
Age (continuous)		.9793231	-.0013561	0.007	.0074793
Having secondary education or more (dummy)		4.52628	.0979963	0.001	2.030515
Being in the workforce (dummy)		1.745637	.0361584	0.034	.4552503
Being rural (dummy)		1.22525	.0131846	0.439	.3213577
Cons		.0419938	-	0.000	.0268617

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

As reported in Table 06, the overall model is statistically significant (LR chi2(5) = 43.00, p < 0.05) and shows that age, having secondary education or more, and being in the workforce are significant at the 5% level. Based on the marginal effect, when age increases by one year, the probability of access to a credit card decreases by about 0.13 percentage points, implying that older people are less likely to have access to a credit card. Also, having secondary education or more increases the probability of access to a credit card by about 9.79 percentage points, indicating higher education improves access more. Moreover, being in the workforce increases the probability of access to a credit card by about 3.61 percentage points, highlighting that being in the economically active segment enhances access.

Table 7: Factors Affecting the Use of Digital Merchant Payments

Usage: Model 01					
Number of obs	= 1,000	Pseudo R2			= 0.1913
LR chi2(5)	= 148.54	Log likelihood			= -314.01283
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - *Use of digital merchant payments (dummy)*					
Explanatory Variables					
Being female (dummy)		.7171155	-.032092	0.112	.1509244
Age (continuous)		.9674048	-.0031982	0.000	.0061964
Having secondary education or more (dummy)		9.28959	.215115	0.000	4.389363
Being in the workforce (dummy)		2.515447	.0890275	0.000	.5421391
Being rural (dummy)		.4286374	-.0817595	0.000	.0880386
Cons		.1121616	-	0.000	.0655516

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

Evidence from Table 07 suggests that the overall model is significant (LR chi2(5) = 148.54, p < 0.05) and reveals that, except for being female, other explanatory variables are statistically significant. As reflected in the marginal effect, when age increases by one year, the probability of making digital merchant payments decreases by about 0.31 percentage points, indicating that when individuals become older, the likelihood of using digital merchant payments decreases. The results also show that having secondary or higher education increases the probability of making digital merchant payments by about 21.51 percentage points, suggesting higher education leads to more usage of digital merchant payments. Moreover, being in the economically active segment increases the probability of making digital merchant payments by about 8.90 percentage points, demonstrating that when individuals are in the workforce, usage improves more. Additionally, being in the rural area, the probability of making digital merchant payments decreases by about 8.17 percentage points, reporting that there is less usage among rural individuals.

Table 8: Factors Affecting Making or Receiving Digital Payments

Usage: Model 02					
Number of obs	= 1,000	Pseudo R2			= 0.0484
LR chi2(5)	= 66.96	Log likelihood			= -658.78549
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - *Making or receiving digital payments (dummy)*					
Explanatory Variables					
Being female (dummy)		.8023588	-.0513535	0.112	.1115949
Age (continuous)		.992861	-.0016709	0.055	.0037254
Having secondary education or more (dummy)		1.616532	.1120086	0.001	.2465835
Being in the workforce (dummy)		2.144774	.17795	0.000	.2965893
Being rural (dummy)		1.061427	.0139029	0.664	.145604
Cons		.7430726	-	0.317	.2204433

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

As shown in Table 08, the overall model is significant (LR chi2(5) = 66.96, p < 0.05), and having secondary education or more and being in the work force are statistically significant. The marginal effect reflects that having secondary education or more increases the probability of making or receiving digital payment by about 11.20 percentage points. Moreover, being in the workforce increases the probability of making or receiving digital payment by about 17.79 percentage points. These results imply that having higher education and being in the economically active segment lead to the use of more digital payments.

Table 9: Factors Affecting the Use of Debit Cards

Usage: Model 03					
Number of obs	= 1,000	Pseudo R2			= 0.1314
LR chi2(5)	= 161.67	Log likelihood			= -534.20732
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - U*se of debit cards (dummy)*					
Explanatory Variables					
Being female (dummy)		.7545072	-.0506663	0.071	.1184016
Age (continuous)		.9753253	-.0044938	0.000	.0042676
Having secondary education or more (dummy)		3.456974	.2231036	0.000	.6910366
Being in the workforce (dummy)		2.126355	.1356919	0.000	.3315327
Being rural (dummy)		.7543983	-.0506923	0.066	.1164012
Cons		.5371344	-	0.066	.181692

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

As presented in Table 09, the overall model is significant (LR chi2(5) = 161.67, p < 0.05), and age, having secondary education or more, and being in the work force are statistically significant. The marginal effect shows that when age increases by one year, the probability of using debit cards decreases by about 0.44 percentage points, implying that older people are less likely to use debit cards. Also, having secondary education or more increases the probability of use of debit cards by about 22.31 percentage points, and being in the workforce increases the probability of use of debit cards by about 13.56 percentage points. These are highlight that having higher education and being in the economically active segment lead to the use of debit cards.

Table 10: Factors Affecting the Use of Credit Cards

Usage: Model 04					
Number of obs	= 1,000	Pseudo R2			= 0.1082
LR chi2(5)	= 41.02	Log likelihood			= -169.07513
Prob > chi2	= 0.0000				
Variable		*Odds Ratio*	*Coefficient of Marginal Effect*	*Probability Value - P>|z|*	*Std. Err.*
Dependent Variable - *Use of credit card(dummy)*					
Explanatory Variables					
Being female (dummy)		.7219319	-.0140055	0.306	.2288124
Age (continuous)		.9753768	-.0010717	0.013	.0094952
Having secondary education or more (dummy)		8.556274	.0922737	0.006	6.347345
Being in the workforce (dummy)		1.987574	.0295268	0.039	.6465443
Being rural (dummy)		1.395786	.0143336	0.311	.4568531
Cons		.0153179	-	0.000	.0142331

Source: Developed by the Researcher based on Findex data, 2025

Note: Base category/ Reference category: A person who is a male, having primary education or less, out of the workforce, and lives in a rural area.

Significant level:5%

As displayed in Table 10, the overall model is significant (LR chi2(5) = 41.02, p < 0.05), and age, having secondary education or more, and being in the work force are statistically significant. The marginal effect indicates that when age increases by one year, the probability of using credit cards decreases by about 0.10 percentage points, implying that when people get older, they are less likely to use credit cards. Also, having secondary education or more increases the probability of use of credit cards by about 9.22 percentage points, and being in the workforce increases the probability of use of credit cards by about 2.95 percentage points. These results reveal that having higher education and being in the economically active segment are likely to use debit cards.

Table 11: Multicollinear for Explanatory Variables

Variable	**VIF**	**1/VIF**
Age	1.20	0.832450
Education	1.20	0.834018
Employment Status	1.11	0.900054
Gender	1.09	0.913608
Urbanicity	1.02	0.979045
Mean VIF	1.13	-

Source: Developed by the Researcher based on Findex data, 2025

The study tested multicollinearity among explanatory variables using VIF (Variance of Inflation Factor) and Tolerance value, and as per Table 11, indicates that all values less than 5 reveal that there is no multicollinearity among variables.

Discussion

Access: Accordingly, the above four models related to the access dimension of digital financial inclusion reveal that being female is less likely to have access to digital financial services, such as access to a digitally enabled account and a mobile money account. These results were also confirmed by Nandru et al. (2021) and Mugume and Bulime (2022), revealing that gender significantly impacts access to digital financial services. Specifically, Bathula and Gupta (2021) in their study mentioned that females are less likely to use mobile banking. However, access to debit and credit cards does not have a significant relationship in the current study, indicating that even women who have debit and credit cards with them face different barriers to access (De Mel & Shantha, 2025). Furthermore, these results collectively indicate that women face various obstacles when engaging with digital financial services, including family responsibilities and care work, limited literacy, a lack of financial control due to social constraints and norms, and reliability issues. The study further reveals that age has a negative and significant impact on access to digital financial services. Aligned with earlier empirical findings (Nandru et al., 2021; Ali & Ghildiyal, 2023; Conrad et al., 2019), also highlighted that age significantly impacts access to digital financial services. Furthermore, the present study found that having a secondary or higher education level and workforce participation increases access to digitally enabled accounts, debit cards, and credit cards. This result corroborates the findings of Nandru et al. (2021), Ali and Ghildiyal (2023), and Conrad et al. (2019). Additionally, the present study demonstrates that being in the rural sector has a significant and negative relationship with access to a digitally enabled account. However, access to a mobile account, debit card, and credit card does not show that significant relationship.

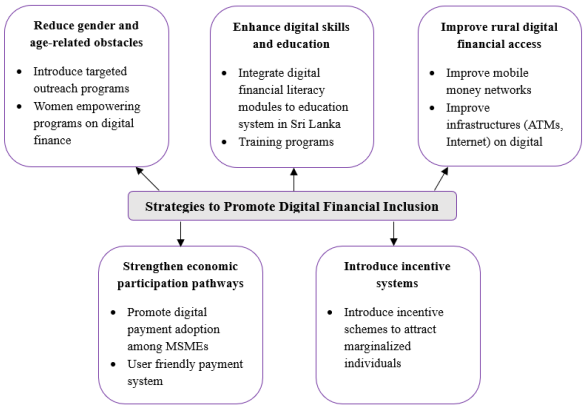
Usage: Digital financial inclusion related to the usage dimension of four models implied that being female is not a statistically significant relationship with the use of digital financial services. However, having secondary or more education levels and workforce participation has a positive and significant relationship with each usage item (use of digital merchant payments, making or receiving digital payments, use of debit cards, and use of credit cards) of digital financial inclusion. These results were also confirmed by Bathula and Gupta (2021) and Ali and Ghildiyal (2023) in their studies. Moreover, the present study found that there is a negative and significant relationship between age and use of digital merchant payments, debit cards, and credit cards, confirming other researchers' findings. In addition to that, the current study demonstrates that only the use of digital merchant payment has a significant and negative relationship with being in the rural sector, while making or receiving digital payments, use of debit cards, and use of credit cards are not statistically significant. These findings were also validated by Liu et al. (2021), revealing that determinants are different for digital financial inclusion in rural and urban sectors, while urban areas have a positive impact on digital financial inclusion compared with the rural sector.

CONCLUSION AND RECOMMENDATIONS

Thus, the eight models assessing the access and usage dimensions of digital financial inclusion reveal that females are less likely to have access to certain digital financial services, while no significant relationship is observed between gender and the usage of digital financial services. Furthermore, the findings indicate that age has a negative and statistically significant impact on both access to and usage of digital financial services. Moreover, higher educational attainment and participation in the economically active population (workforce) increase the likelihood of accessing and using digital financial services. However, the results also show that residing in the rural sector has a significant negative relationship only with access to a digitally enabled account and the use of digital merchant payments, whereas its relationship with access to and use of debit and credit cards, as well as making or receiving digital payments, is statistically insignificant.

Collectively, the findings of the current study suggest that the level of digital financial exclusion in the Sri Lankan context is driven by socioeconomic factors. Based on these findings, the study proposed the following framework to enhance digital financial inclusion among marginalized people in Sri Lanka by promoting access to and use of digital financial services. The framework highlights enhancing digital usage and access via various targeted policy interventions to reduce age and gender related constraints, developing digital and financial literacy, encouraging workforce participation, and finally addressing the rural digital access gap in Sri Lanka.

Figure 3: Framework to Promote Digital Financial Inclusion



Source: Developed by the Researcher, 2026

Even though the present study generated new empirical findings to academic literature, future researchers can use mixed methods compiling quantitative and qualitative data, examining more and different dimensions including all three dimensions of digital financial inclusion such as access, usage and quality of digital financial services and different items theses dimensions of digital financial inclusion and determinants employing a larger sample size in the Sri Lankan context to fill present research gaps and limitations.

Data Source Acknowledgment

This study uses data from the Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy (FINDEX 2025), primary investigator by the Development Research Group, Finance and Private Sector Development Unit

of the World Bank. (Ref: WLD_2024_FINDEX_v02_M), downloaded from [https://microdata.worldbank.org/catalog/7860/get-microdata] on [2/20/2026].

Disclosure

The study used Grammarly to correct grammatical errors and appropriateness.

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