Financial Literacy role in achieving Financial Inclusion; Evidence from Egypt

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Abstract

One of the most important factors in boosting prosperity is financial inclusion, which is defined as having access to and using financial services. And, financial literacy aids in teaching and empowering people so that they are knowledgeable about and capable of evaluating a variety of financial products and services to make decisions that will maximize their utility. So, the goal of the current study is to see if we have financial literacy this will help to achieve financial inclusion and then achieve sustainability. Hence, the following research question was addressed to achieve the research objective: What is the role of financial literacy in achieving financial inclusion in Egypt? To evaluate the research model, 424 Egyptian individuals were polled online using structural equation modeling. The results indicated that financial literacy had a significant and positive impact on financial inclusion. This lends support to the Hypothesis of the study, which suggests that financial literacy significantly affects financial inclusion and enhances sustainable development in Egypt.

Keywords: Financial Literacy, Financial Inclusion, Sustainable Development.

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دور محو الأمية المالية في تحقيق الشمول المالي
أدلة من مصر

خلاصة

إن أحد أهم العوامل في تعزيز الرخاء يتلخص في الشمول المالي، والذي يعرف بأنه القدرة على الوصول إلى الخدمات المالية واستخدامها . وتساعد محو الأمية المالية في تعليم الناس وتمكينهم حتى يصبحوا على دراية بطائفة متنوعة من المنتجات والخدمات المالية وقادرين على تقييمها حتى يتسنى لهم إتخاذ القرارات الكفيلة بتعظيم الاستفادة منها . لذا، فإن الهدف من الدراسة الحالية هو معرفة ما إذا كان لدينا محو الأمية المالية جيدة وهذا سيساعد على تحقيق الشمول المالي ومن ثم تحقيق الاستدامة . بالتالي فإن السؤال البحثي التالي قد تم طرحه لتحقيق الهدف البحثي : ما دور محو الأمية المالية في تحقيق الشمول المالي في مصر؟ لتقييم نموذج البحث، تم إستقصاء 424 شخصا مصريا عبر شبكة الإنترنت باستخدام نماذج المعادلة الهيكلية للمعادلة . وأشارت النتائج إلى أن محو الأمية المالية يؤثر تأثيرا كبيرا وإيجابيا على الشمول المالي . وهذا يدعم الدراسة ، التي تشير إلى أن محو الأمية المالية يؤثر بشكل كبير على الشمول المالي في مصر .

كلمات رئيسية : الشمول المالي, التنمية المستدامة, محو الأمية المالية

1. Introduction:

Financial inclusion, or having access to and using financial services, is one of the most crucial elements in fostering prosperity. Additionally, it is regarded as a key policy tool for achieving Universal Financial Access (UFA) and the Sustainable Development Goals (SDG) by several development organizations. Policymakers are therefore very interested in the factors that contribute to financial inclusion and how these factors may be affected by national-level legislation (Khan et al., 2022).

Financial inclusion is the condition of having access to a full range of high-quality services that are offered at reasonable costs, in a convenient manner, and with the utmost respect for the customer. According to the World Bank (2014), access to and use of fundamental financial services including savings, payments, loans, and insurance assist the poor escape poverty. The main tool for helping the poor manage their daily lives, get through crises, and seize opportunities is financial inclusion. Financial inclusion does indeed make it simpler to balance spending and build up assets, which may have a significant impact on well-being (Bongomin et al., 2018).

The battle against poverty and the advancement of the economy both depend heavily on financial inclusion. Financially connected households are better able to save money, invest in education, launch businesses, assist women, and maintain better health. Grohmann et al. (2018) concluded that financial literacy significantly contributes to the promotion of financial inclusion based on data from the S&P global financial literature survey. According to Adetunji and David-West (2019), savings behavior is influenced by financial literacy in both formal and informal financial institutions. According to Morgan and Trinh (2019a), financial literacy is favorably connected with both financial inclusion and saving (Morgan & Long, 2020).

To expand access to and use of financial services, particularly in developing countries, academics, and development groups have promoted financial literacy. This is because it can be challenging for people, especially the poor, to make wise financial decisions and decisions given the increasingly complicated menu of financial products offered by banks. Financial literacy thus empowers consumers to make sensible financial choices before utilizing sophisticated financial services and products provided by authorized financial institutions (Bongomin et al., 2018).

Financial literacy is a tool for educating and enabling people so they can evaluate a range of financial products and services and make decisions that will optimize their utility. Complex financial goods can be analyzed, which enables the impoverished to make informed decisions before using them (Lusardie et al., 2017). However, the OECD (2016) states that the degree of financial literacy is still low, even though it has been essential in increasing people's understanding of financial challenges, particularly in developing countries. This is due to the limited outlets for distributing financial literacy (Okello Candiya Bongomin, 2020).

However, while studies such as Lusardi et al. (2017), Bongomin et al. (2018), Morgan & Long, (2020), Khan et al. (2022), Okello Candiya Bongomin et al. (2020), have linked financial literacy to financial inclusion, there are scanty empirical studies, which examines the relationship between financial literacy and financial inclusion in Egypt.

This current study tackles the gap in prior studies by trying to improve financial knowledge and financial inclusion interactions in Egypt. Hence, the following research question was addressed to achieve the research objective:

RQ: What is the role of financial literacy in achieving financial inclusion in Egypt?

So, the goal of the current study is to see if we have financial literacy this will help to achieve financial inclusion and then achieve sustainability.

Thus, the main purpose of this study is to examine the relationship between financial literacy and financial inclusion in Egypt. The paper is organized as follows: Section 2 presents literature review hypotheses formulation. Section 3 presents the research methodology Following this Section 4, presents data analysis. Section 5 presents discussions of findings, theoretical, practical, and policy implications as well as limitations and future research directions. Lastly, Section 6, concludes the paper.

2. Literature review and Hypotheses development:

2.1 Literature review

2.1.1 Financial literacy:

Future planning and responsible financial decision-making are both made possible by financial literacy (FL). Budgeting and debt management skills were stronger among those with solid finances (Pandey et al., 2022).

Financial literacy is the ability to use common sense while making judgments about how to use and manage money. It is seen as an essential requirement for thriving in modern civilization. It makes everyone understand the importance of saving money. The ultimate goal of financial literacy is to empower people to make decisions that will improve their financial well-being (Ramakrishnan, 2012). Cohen and Nelson (2011) call attention to the fact that more access and better options do not always equate to effective use. It is challenging to employ effectively due to knowledge and power imbalances between financial institutions and low-income users. Both the intricacy of the items that customers can choose from and their lack of experience contribute to this mismatch. Financial literacy is an essential tool to address this disparity and help customers accept and use the goods they have more access to (Shen et al., 2018).

Financial literacy, according to Amidjono et al. (2016), is a set of practices or activities designed to increase consumers' knowledge, competence, and capacities so they can handle their money more effectively. Mason & Wilson also asserted something similar (Krishna, 2010).

According to the OECD (2018), financial literacy is the capacity to make decisions successfully in a range of financial circumstances, enhance one's financial well-being and the financial well-being of society, and engage in economic activity. Financial literacy is the comprehension of basic financial principles as well as the abilities, drive, and self-assurance to put that learning to use (Wewengkang et al., 2021). Financial literacy seeks to enhance the quality of individual financial decision-making and modify attitudes and behaviors in financial management to identify and use financial products and services that are in line with consumer demands and achieve success (Trivena & Aini, 2021).

2.1.2. Financial Inclusion:

The global history of financial inclusion shows that connecting everyone to essential financial services has been a long and continually changing process of growth. Many organizations started to broaden their offerings starting in the late 1990s and the middle of the 2000s, going beyond merely microcredit services to include fundamental access to financial services like investment funds and insurance (Sajuyigbe et al., 2020).
Financial inclusion, which is roughly defined as the accessibility of financial services to people and enterprises, is one of the most important subjects in today's development discourse (Babych et al., 2018).
Eliminating obstacles to accessing the financial sector is the aim of financial inclusion. It could be challenging to get information from financial sources if this isn't possible.

Financial literacy is a thorough understanding of the financial system and the financial sector; financial inclusion refers to lowering obstacles to the financial industry. Combining the two will boost the economy as a whole (Nugraha et al., 2021).

The poor and other excluded groups are expected to benefit from inclusive financial systems, which enable widespread access to financial services without cost or non-cost barriers to utilization. Financial inclusion is therefore a comprehensive, client-centered concept that involves better access, better products and services, and better applications (Shen et al., 2018).

According to the World Bank (2016), financial inclusion is the availability of financial services and products that benefit a community and address its requirements while continuing to be practical and cheap. Here, properly and sustainably used transactions, payments, savings, credit, and insurance are all included. OJK (2016) defines financial inclusion as having access to a range of financial institutions, products, and services to the needs and resources of the community to improve people's welfare (Wewengkang et al., 2021).

Higher levels of financial inclusion (FI), both at the local and macro levels, will be beneficial to a nation's economy. To combat poverty, promote inclusive growth, and aid in the achievement of the Sustainable Development Goals at the local level, FI offers supplementary and incremental methods. By releasing savings and enticing more companies into the formal sector, which would enhance tax receipts, FI can help to increase potential growth at the macro level (Koomson et al., 2019).

According to Hendro et al. (2014), expanding access to banking services, particularly for low-income rural areas, is a key component of financial inclusion. It entails boosting the savings program's efficiency, developing financial literacy tests, implementing the Financial Identity Number (FIN), and providing financial education (Bire et al., 2019).

To encourage capital accumulation, which in turn fosters economic growth; financial inclusion can foster specialization, raise capital allocation, reduce transaction and information costs, and increase asset liquidity. Additionally, financial inclusion will increase loan availability, which will ultimately speed up economic growth, and increase investment in high added value sectors (Hidayatinnisa et al., 2021).

2.1.3. Financial Literacy and Financial Inclusion:

Many countries have liberalized their financial markets, according to La Porta et al. (1998), in an effort to increase access to and utilization of financial services. To encourage the use and demand for financial services, however, several financial intermediaries' market participation may not be enough. Due to the sophisticated nature of the financial products and services provided by financial institutions, this is the case (Bongomin et al., 2018).

Financial inclusion also incorporates financial literacy because it is necessary to include a sizable segment of the excluded population in the financial system. People can manage risk, comprehend and uphold their rights and obligations as financial product customers, and make wiser financial decisions thanks to it. Both the wealthy and the poor benefit from financial literacy, which increases their ability to use financial services and products more efficiently (Ramakrishnan, 2012).

Financially literate individuals have the knowledge and abilities to determine whether financial goods are appropriate for them to employ to better their financial situation and financial inclusion. Alessie et al. (2011) found that financial literacy had an impact on financial decision-making. Significantly fewer persons who are illiterate own stocks. To give financial skills and information and to enable their application while making financial decisions, it is therefore vital to increase financial literacy (Shen et al., 2018).

Anthes and Most (2000) claim that the rise in consumer debt, low savings rates, and unsettling increases in bankruptcy rates have increased the need for financial literacy in society. The OECD (2009a) also emphasized that it is appropriate to provide underprivileged households with financial knowledge and skills so they can make strategic financial decisions and informed financial decisions to increase the scope of financial inclusion (Okello Candiya Bongomin et al., 2016).

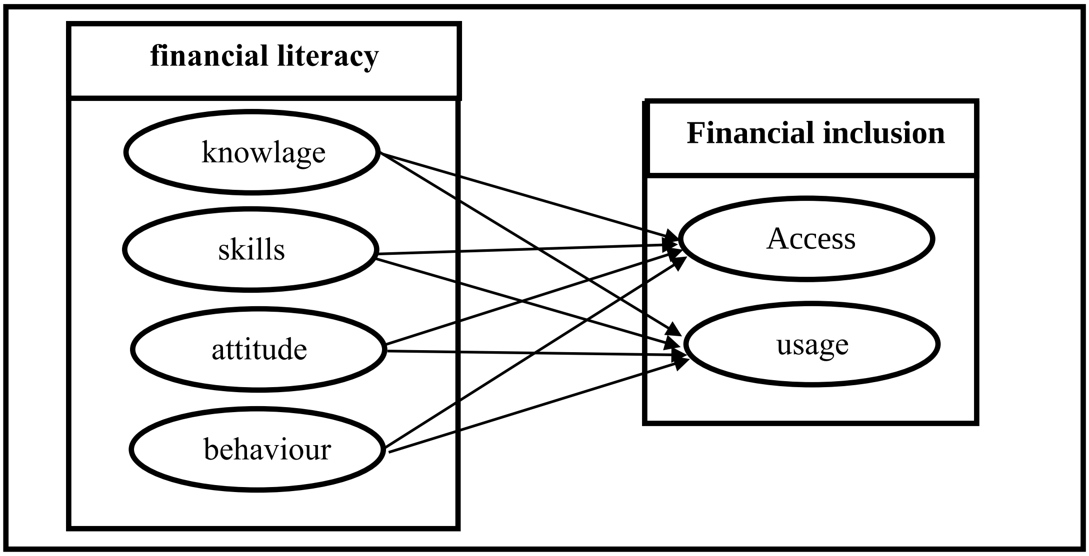
Researchers from all over the world agree that improving financial literacy and building one's financial competencies are two ways to achieve financial inclusion. However, Atkinson and Messy thought that a lack of financial capability and awareness was the primary factor behind lower levels of FI in any economy. They recommended that authorities encourage banks and financial institutions to provide training programs to enhance the FI level (Pandey et al., 2022).

Individuals' financial decisions, investment decisions, and other behavioral aspects of financial literacy have all been studied. Additionally, research results demonstrated the advantages of financial literacy in increasing financial inclusion in many countries. People may make financial judgments, and the more they are conversant with financial principles, the better they will be at avoiding behavioral biases (Liu et al., 2021).

People, especially the poor, can learn about financial ideas and hazards through financial literacy. They can also develop the skills, drive, and confidence to use their newfound information and financial understanding to make informed decisions in a range of financial situations. Their financial situation thus gets better. Financial knowledge improves an individual's ability to invest, claim Lusardi et al. (2017). Additionally, the larger returns that the more financially savvy people earn have a big role in the gap in individual wealth (Okello Candiya Bongomin et al., 2020).

Financial literacy is important for minimizing financial risk since it correlates with higher use, comprehension, and utilization of money (Financial Inclusion) of financial goods and services, according to research by Hutabarat (2018). According to a study by Atkinson and Messy (2013), low levels of financial inclusion are accompanied by low levels of financial literacy (Irman et al., 2021). The relationship between financial literacy and financial inclusion has also been shown in studies by Khan et al. (2022), Koomson et al. (2020), Irman et al. (2021), and Bire, et al. (2019), among others, To measure the effect of financial literacy on financial inclusion in the general populace, Where financial literacy is thought to positively affect financial inclusion. Accordingly, increasing financial literacy among the populace will also promote financial inclusion in the nation, which will then boost economic development. Consequently, these hypotheses were proposed:

H: Financial literacy significantly affects financial inclusion in Egypt.



Source: Developed by Author.

Figure 1. Proposed conceptual model for the study.

3. Research methodology:

3.1. Research context:

Egypt was chosen as the study's focus because, in addition to sustaining a sound financial system, the Egyptian government also values advancing and promoting financial inclusion in Egypt. After signing the Maya Declaration in 2012, CBE became a principal member of the AFI in July 2013. Financial inclusion was designated as a national objective by the Egyptian Sustainable Development for 2030 in 2015. This was made feasible by the addition of the nearly excluded women and young people who make up two-thirds of Egyptian society, as well as the additional more than 10 million workers in the unorganized sector (Hussein, 2020).

The study examined the link between financial literacy and financial inclusion in Egypt using a cross-sectional research approach and quantitative analysis. The information was gathered all at once to address the research's hypotheses.

3.2. Measurement:

According to Singleton and Straits (2010), the researcher should translate the theoretical description of the construct into an actual method of measuring the variable so that numbers may be assigned.

Financial literacy: Prior scholars including Atkinson and Messy (2012), Lusardi and Mitchell (2017), Lusardi and Mitchell (2011), and Lusardi (2003) have employed knowledge and skills to assess financial literacy. Holzmann (2010) and Kempson (2008), however, have broadened the definition of financial literacy in recent years to incorporate practical components and the temporal transition from knowledge to skills to attitudes to behavior. Therefore, for this study, the constructs of knowledge, abilities, attitudes, and behavior were chosen to measure financial literacy. All of the produced items were anchored to a five-point Likert scale with 1 being strongly disagree, 5 being strongly agree, 4 being agree, 3 being not sure, and 2 being disagree. The questionnaire in Appendix 1 lists the items used to measure financial literacy.

Financial inclusion: The World Bank and ACCION assert that there is no universally accepted definition of financial inclusion. This is because financial inclusion occurs in a variety of circumstances and environments. Since ACCION specifies that financial inclusion includes access, utilization, quality/relevance, and welfare impact, the majority of research on financial inclusion has embraced these dimensions as measures for financial inclusion. To quantify financial inclusion, the notions of access and usage were used in this study (Bongomin et al., 2018). The questionnaire that was utilized for the study has a scale of five (strongly agree), four (agree), three (not sure), two (disagree), and one (strongly disagree). The questionnaire in Appendix 1 includes a list of the items used to measure financial inclusion.

3.3. Data collection:

The population of this study consists of all Egyptian residents who own financial investing tools. The probability sampling method, as opposed to the ordinary random sampling method, which was used for this study, gives each sample member an equal chance of being chosen. 384 people will make up the sample for this study. Researchers conducting any form of survey, according to Creswell (2009), should carefully choose the sampling design and procedures used to acquire their sampling. The sample for the study was selected using conventional random sampling and stratified sampling techniques.

The samples used in the study were requested to complete a semi-structured questionnaire, and the investigation was quantitative. Guidelines from Churchill and Iacobucci (2004) served as the foundation for the questionnaire's design. The nine steps in this process were as follows: defining the information sought; selecting the type of questionnaire and administration methods; determining the content of individual items; determining the form of responses; determining the wording of each question; determining the order of questions; determining the physical layout and characteristics of the questionnaire; and, finally, reviewing steps 1 through 7 and pre-testing the questionnaire.

Since they had been proven to be trustworthy and valid, the items in the questionnaire were selected from earlier studies that were published in peer-reviewed, international publications. Before being used, the validity and reliability of each item on the questionnaire were assessed. The pilot's results showed that all of the constructs had valid items, and the coefficients for financial literacy and involvement in the financial system, respectively, ranged from 0.840 to 0.865. Over four months (March to June 2014), data from a total sample of 384 participants were collected for the primary study.

4. Data analysis and Results:

The data analysis procedure was broken down into three steps: descriptive, measurement model, and structural model analysis. A descriptive analysis of the respondents' demographic characteristics was carried out using the SPSS program; the results are detailed in section 4.1. For measurement and model analysis, the study used partial least square structural equation modeling (PLSSEM). This study specifically employs SmartPLS version 3.2.7 for data analysis. Due to its adaptability to complicated interactions, skewed sample distribution, and limited sample size, PLS-SEM was chosen for this study over methods like EQS, AMOS, and LISREL (Senyo & Osabutey, 2020). Sections 4.2 and 4.3, respectively, present the measurement and structural model analysis findings.

4.1. Demographic characteristics:

Data analysis for three crucial factors—gender, age distribution, and educational attainment—was done to understand the respondents' demographics.

Table 1 Demographic characteristics.

	Frequency	Percent
Gender		
Male	274	64.6
Female	150	35.4
Age		
≤ 18 - 24 years	61	14.4
≤ 25 – 34 years	110	25.9
≤ 35 – 44 years	118	27.8
≤ 45 – 54 years	77	18.2

≤ 55 – 60 years	58	13.7
Highest educational level		
High School	44	10.4
Professional Certificate	24	5.7
First Degree (Bachelors)	260	61.3
Master's Degree	65	15.3
Doctorate Degree	31	7.3
Total	**424**	**100.0**

Table 1 displays the outcomes from these characteristics. The results show that males (64.6%) outnumber females (35.4%) in the sample when it comes to gender groups. The bulk of respondents (27.8%) fall within the 35-44 age range in terms of age distribution. Respondents in the 25–34 age range (25.9%), 45–54 age range (18.2%), 18–24 age range (14.4%), and 55–60 age range (13.7%) are followed by this age group. This finding suggests that young adults make up the majority of the sample. Last but not least, those with a first degree make up the majority of respondents (61.3%), followed by those with a master's degree (15.3%), a high school diploma (10.4%), a doctorate degree (7.3%), and those with a professional certificate (5.7%).

4.2. Measurement model:

The measurement model's output, shown in Table 2, calculates the degree to which the research model fits the data. The examination of the measurement model was conducted using three key criteria: factor loadings, convergent validity, and discriminant validity. The measurement model showed a strong fit for factor loadings because the majority of the indicators had scores above (0.70). Overall, factor loading results demonstrate strong indicator reliability as the majority of factors met the cutoff of 0.70. The average variance extracted (AVE) criterion was utilized for convergent validity analysis. Hair et al. (2013) state that a construct's AVE value must be more than 0.50 to achieve convergent validity. As shown in Table 2, all of the model's constructs have AVE values above 0.50, which is a sign of strong convergent validity.

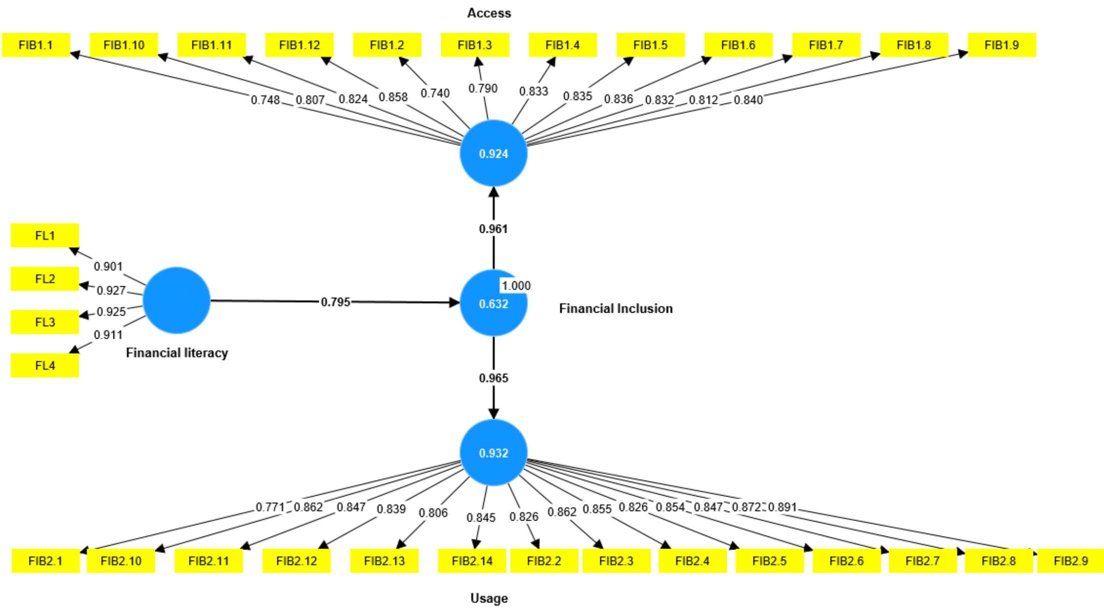


Figure 2 Result of the factor loadings.

Table 2 Quality criterion (AVE, composite reliability, Cronbach's alpha) and factor loadings.

Cross loadings	Access	Financial literacy	Usage
FIB1.1	**0.754**	0.630	0.648
FIB1.10	**0.809**	0.672	0.684
FIB1.11	**0.821**	0.640	0.733
FIB1.12	**0.854**	0.639	0.780

FIB1.2	**0.747**	0.626	0.652
FIB1.3	**0.795**	0.650	0.657
FIB1.4	**0.838**	0.672	0.671
FIB1.5	**0.838**	0.665	0.691
FIB1.6	**0.831**	0.602	0.703
FIB1.7	**0.825**	0.571	0.680
FIB1.8	**0.808**	0.640	0.709
FIB1.9	**0.834**	0.620	0.733
FIB2.1	0.642	0.587	**0.772**
FIB2.10	0.724	0.648	**0.862**
FIB2.11	0.750	0.617	**0.845**
FIB2.12	0.712	0.596	**0.837**
FIB2.13	0.693	0.639	**0.808**
FIB2.14	0.752	0.611	**0.843**
FIB2.2	0.707	0.618	**0.826**
FIB2.3	0.745	0.657	**0.863**
FIB2.4	0.731	0.648	**0.855**
FIB2.5	0.730	0.696	**0.830**
FIB2.6	0.701	0.654	**0.856**
FIB2.7	0.708	0.632	**0.847**
FIB2.8	0.742	0.627	**0.871**
FIB2.9	0.754	0.640	**0.890**
FL1	0.701	**0.901**	0.657
FL2	0.694	**0.927**	0.695
FL3	0.737	**0.924**	0.726
FL4	0.736	**0.911**	0.677
Cronbach's alpha	**0.953**	**0.936**	**0.969**
Composite reliability (rho_a)	**0.954**	**0.937**	**0.969**
Composite reliability (rho_c)	**0.959**	**0.954**	**0.972**
AVE	**0.662**	**0.839**	**0.712**

The study used Fornell and Larcker as its two discriminant validity criteria. We checked that the square root of the AVE for each variable was greater than the bivariate correlations between the other components to determine discriminant validity in accordance with Fornell & Larcker's (1981) criterion (Fornell and Larcker, 1981). The square root of the AVE, which is shown on the diagonal of the correlation matrix and is shown in Table 3, indicates that the values are between 0.814 and 0.916. We propose that there is discriminant validity because these values are greater than the bivariate correlation between any two constructs in the study. This result shows that all 6 constructs in our research model have higher variances that set them apart from one another.

Table 3 Fornell and Larcker discriminant validity criterion.

Fornell-Larcker criterion	Access	Financial literacy	Usage
Access	**0.814**		
Financial literacy	0.783	**0.916**	
Usage	0.855	0.752	**0.844**

4.3. Structural model:

The structural model is evaluated in the final stage of data analysis by looking at path significance, the impact of each hypothesized link, and the explanatory power of the research model. The results supported H, as seen in Fig. 3. The model also explained 96.1% of access and 96.5% of usage. Among the hypotheses that were confirmed, the findings (see Table 4) show that financial literacy has a significant favorable impact ($p < 0.000$, 14.07795). The findings also show that Financial Inclusion (140.961; $p < 0.000$) has a considerable positive impact on access, and Financial Inclusion (140.965; $p < 0.000$) has a significant positive impact on usage.

Table 4 Hypotheses testing results.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Financial Inclusion -> Access	0.961	0.961	0.007	140.878	0.000
Financial Inclusion -> Usage	0.965	0.965	0.006	166.386	0.000
Financial literacy -> Financial Inclusion	0.795	0.794	0.027	29.049	0.000

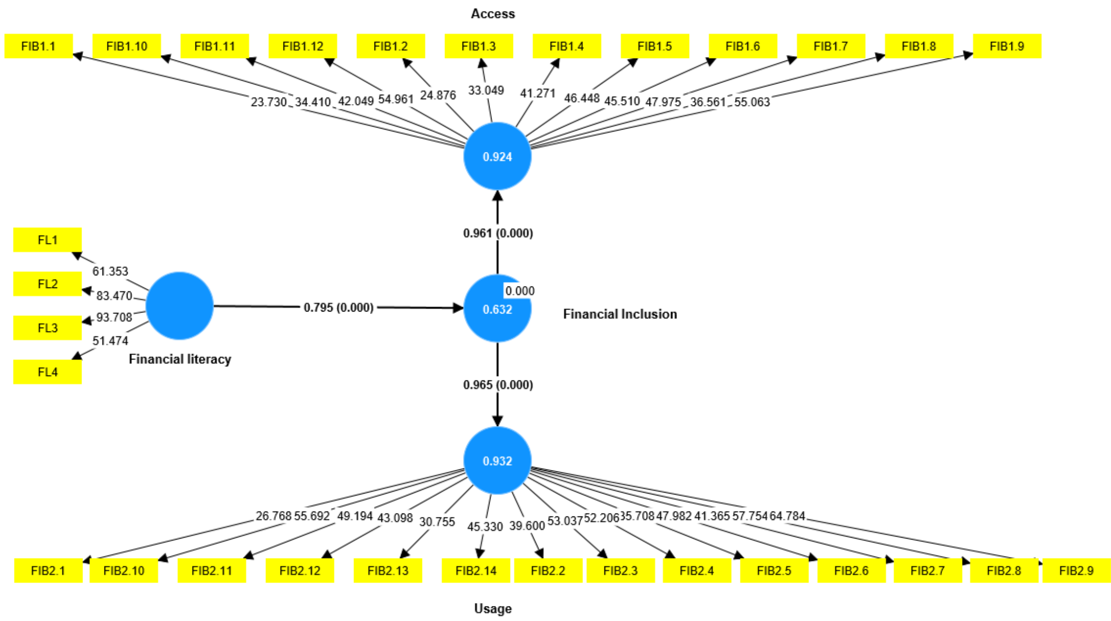


Figure 3 Result of the structural model.

5. Discussion:

The objective of the current study is to determine whether financial literacy can assist Egypt in attaining financial inclusion and, ultimately, sustainability. The findings showed that financial inclusion was significantly and favorably impacted by financial literacy. This supports the study's hypothesis H, which contends that financial literacy has a big impact on financial inclusion in Egypt. Financial literacy encourages prudent financial decision-making among the populace before purchasing sophisticated financial services and goods offered by established financial institutions, which ultimately leads to sustainability in Egypt. According to Ramakrishnan (2012), financial inclusion also incorporates financial literacy because it is necessary to include a sizable section of the excluded population in the financial system. People can manage risk, comprehend and uphold their rights and obligations as financial product customers, and make wiser financial decisions thanks to it. Both the wealthy and the poor benefit from financial literacy, which increases their ability to use financial services and products more efficiently.

Researchers from all over the world agree that improving financial literacy and building one's financial competencies are two ways to achieve financial inclusion. However, Atkinson and Messy thought that a lack of financial capability and awareness was the primary factor behind lower levels of FI in any economy. They recommended that authorities encourage banks and financial institutions to provide training programs to enhance the FI level (Pandey et al., 2022). Financial literacy has statistically positive benefits on both savings and financial inclusion, according to Morgan and Long (2020). Additionally, there are differences in how financial literacy affects different financial inclusion measures. Additionally, our data show that those with greater financial People with greater financial literacy scores are more likely to maintain savings in both formal and informal forms, even after accounting for income and education.

Financial literacy, according to Khan et al. (2021), is a crucial part of the global policy agenda for financial inclusion since it empowers people to make prudent financial decisions that improve their well-being. Additionally, Bongomin et al. (2018)

demonstrated that cognition has a significant impact on the relationship between financial literacy and the inclusion of the underprivileged in rural Uganda. Financial and cognitive literacy also have a direct bearing on the impoverished in rural Uganda.

5.1. Implications for Study:

The study's conclusions provide light on the significance of raising financial literacy among Egyptians for policymakers, bank management, and proponents of financial inclusion. When deciding to use financial services and products offered by established financial organizations, financial literacy enables consumers to make informed decisions. This broadens the range of financial inclusion for Egyptians. Because of this, proponents of financial literacy should create efficient financial literacy initiatives that encourage financial inclusion.

Policymakers and those who support financial literacy should also consider how social structures affect the meanings that people assign to their actions. Implementing programs to promote financial literacy may not necessarily result in increased public financial inclusion. Policymakers should be aware of the current cognitive frameworks that influence how consumers view using financial products provided by financial institutions.

5.2. Limitations and future research:

There are certain limitations to this study, even though it demonstrates the connection between financial literacy and financial inclusion and provides important insights that further the knowledge, creation, and use of financial services. First, the study was conducted in Egypt, a nation with a developing economy. As a result, social peculiarities may make the findings irrelevant in contexts found in industrialized countries. Future research may therefore investigate the relationship between financial literacy and financial inclusion in both emerging and developed country contexts to enhance the generalizability of the findings. Second, only questionnaires were used to collect data for the study, which employed a cross-sectional research design. A longitudinal study approach might be adopted in future research. Interviews could potentially be used in future studies.

6. Conclusion:

The objective of the current study is to determine whether financial literacy can assist Egypt in attaining financial inclusion and, ultimately, sustainability. The main research question—what part does financial literacy play in achieving financial inclusion in Egypt—was addressed in the study, along with evaluating the research approach. The findings showed that financial inclusion was significantly and favorably impacted by financial literacy. This supports study finding H, which contends that financial literacy has a big impact on financial inclusion in Egypt. The findings support the large and favorable influence that knowledge, skills, attitude, and behavior have on financial inclusion (access and usage) in Egypt. Financial literacy does indeed assist people in making informed financial judgments and choices before utilizing sophisticated financial services and products offered by regulated financial institutions, which ultimately helps people in Egypt attain sustainability.

Appendix A. Research Questionnaire:

Constructs	Items	Questions
Knowledge	KNW1	I am informed about monetary hazards.
	KNW2	I am aware of the prices connected with financial goods and services.
	KNW3	I'm good at calculating interest rates.
	KNW4	I have no trouble understanding basic financial lingo.
	KNW5	I am familiar with the main characteristics of financial services and goods.
	KNW6	I have no trouble making sound financial judgments.
	KNW7	I can open a bank account with ease.
	KNW8	A bank account is simple for me to utilize.
	KNW9	I am competent in managing finances.
	KNW10	I have no trouble evaluating financial goods and services.
	KNW11	Planning financial activity sequences is not difficult for me.
	KNW12	I am familiar with the advantages of financial services and goods.
Skills	SK1	I am capable of creating a personal budget.
	SK2	I have the power to select the financial services I want.
	SK3	I can accurately estimate the rewards of financial transactions.
	SK4	I can calculate costs from financial transactions with accuracy.
	SK5	I am skilled in analyzing various financial services and goods.
	SK6	I am capable of managing my finances sensibly.
	SK7	I can make plans for my future financial requirements.
	SK8	I have enough money to use financial products and services wisely.
	SK9	I'm able to handle my finances.
	SK10	I can calculate interest rates.
	SK11	I can manage my needs in the future.
Attitude	AT1	I have a positive outlook on money management.
	AT2	I have a positive outlook on handling money sensibly.
	AT3	Saving money comes naturally to me.
	AT4	I like to spend money.
	AT5	Regarding money management, I am consistently organized.
	AT6	I have a constant interest in money-related issues.
	AT7	Financial topics make for interesting conversation for me .
	AT8	Friends are the best source of information for me regarding money matters.
	AT9	Financial news always interests me.
	AT10	Dealing with financial institutions really interests me.
	AT11	I have a positive outlook on money matters.
Behavior	BH1	I carefully read the usage guidelines before using any financial services or goods.
		I'm constantly trying to save money.
	BH2	I constantly consider my spending.
	BH3	I always save aside some cash for their potential future needs.
	BH4	I always select financial goods based on my requirements and circumstances.
	BH5	I frequently behave better with money.
	BH6	I always make timely payments on debts.
	BH7	I always stay within my spending limits.
	BH8	Prior to choosing financial products or services, I compare prices.
	BH9	Bills will always be paid by me.
	BH10	I'm constantly keeping a careful eye on my personal finances.
	BH11	I've always thought about how to reach my financial objectives.
	BH12	When it comes to financial matters, I am always accountable.
	BH13	Over the past few years, I've been aggressively saving.
	BH14	I always do my research before selecting a financial product.
	BH15	I carefully compare options before selecting a financial product.
	BH16	

	BH17 BH18 BH19 BH20	I always take out loans to pay for my expenses. I always keep a spending log. I consistently make savings. Whenever it comes to my finances, I always have control.
Access	ACC1 ACC2 ACC3 ACC4 ACC5 ACC6 ACC7 ACC8 ACC9 ACC10 ACC11 ACC12	Nearby, there are numerous avenues for delivering financial services. There are numerous branches of financial institutions close by. The banking institution's initial account opening costs are reasonable. The banking institution's account maintenance fees are reasonable. The banking institution's mandated minimum balance on savings accounts is reasonable. The banking institution's lending fees are reasonable. The financial institution's minimal loan amount is acceptable. The financial institution only requires a small number of documents to open an account. The banking institution processes loan applications in a fair number of days . The financial institution does not discriminate against me when offering its services. The financial institution's preferred location for loan application submission is good. The financial institution's payment services come with reasonable prices.
Usage	USG1 USG2 USG3 USG4 USG5 USG6 USG7 USG8 USG9 USG10 USG11 USG12 USG13 USG14	A trip to the banking institution is inexpensive. The financial institution's paperwork requirements are reasonable. The financial institution has reasonable rates for using its services. The financial organization offers very high-quality services. The financial institution continuously offers its services. The financial institution always offers convenient hours for its financial services. I believe in the financial services and products provided by financial institutions. The financial institution's services and products are user-friendly. Receiving financial services from the financial institution is a simple process. My travel time to the financial institution to obtain the services is less. The financial institution's interest on deposit services is appealing to me. The conditions established by the financial institutions for using their goods and services are in my benefit. I frequently utilize a financial institution that is close by . The financial institution's loan repayment conditions are favorable to me.

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