Financial inclusion in Egypt: A Model Framework to Consider

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Abstract

The purpose of this article is to offer a model framework that could be used by researchers and policymakers in implementing financial inclusion in emerging countries to reach inclusive growth by using Egypt as a core example with financial inclusion acting as an integral part of its 2030 vision to achieve the Sustainable Development Goals and a top priority on the government's agenda. Research methods include a macro analysis, both qualitative at the country level, and quantitative at the individual behavioural level implementing a series of sequential steps to analyse the challenges faced by emerging countries when implementing financial inclusion. Steps include (1) an assessment of the degree of inclusive finance to fulfil the impediment of inclusive finance through an analysis of previous literature (2) comparative analysis of various empirical tests of individual behaviour and challenges that affect the degree of inclusive finance. (3) An analysis of the progress towards collaborative efforts at various levels to achieve financial inclusion and. Results convey a need for collaborative efforts towards financial inclusion to implement inclusive finance, pinpointing the gaps and challenges. The article recommends policy measures that would raise individual financial awareness robusting financial literacy, and pushing forward with the establishment of a stable and resilient financial system.

Keywords: financial inclusion, collaborative efforts, inclusive finance, financial awareness.

JEL Classification: G1, G21, G28, J16

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Introduction

Financial inclusion, interchangeably inclusive finance, in the current dynamic world is viewed in the heart of development and one of main goals of the UN's sustainable development goals, especially in the most economically dependent societies (Kapoor, 2013). The real power of production from the informal sector, small businesses, the women's informal work and the illiterate sector can be reflected in the fiscal sectore through financial inclusion. With the advent of unresolved tax revenue, the government is able to strengthen its budget and control its policy tools whether financial or financial. No doubt that finacail inclusion can attract remittances, as it facilitates the transfer of remittances abroad. Other benefits of finacail inclusion include improved domestic use and women's empowerment. Scholars such as Blancher 2019 directly linked financial systems to economic growth; inclusive financial access and services aids individuals, firms, and economies, reaping the benefits of funds available in savings, credits, payments and loans alternatively creating growth, employment and labor. Not accessing financial services demolishes opportunities for savings accumulations and for investment-borrowing opportunities. Individuals unable to resort to financial services are somehow marginalized, and are exposed to poverty traps hampering economic development (Zins and Weill 2016). Advancing financial inclusion strengthens revenue, which in turn reduces poverty problems, unemployment rate, tax evasion, and money laundering. The banking system relies on investment for the sole reason that from the banking requirements it is the customer's investment, and bank profit.

The purpose of this article is to offer a model framework that could be used by researchers and policymakers in implementing financial inclusion in emerging countries to reach sustainable and inclusive growth by using Egypt as a core example. The Central Bank of Egypt (CBE) prioritized financial inclusion as a strategic objective, to be "national priority", to be addressed on the agenda of Egypt's Sustainable Development goals and Egypt's Vision 2030 (Financial Inclusion in Egypt 2017). The framework suggests a series of sequential steps based on a : (1) an assessment of the degree of implementing inclusive finance through an analysis of previous empirical results, concepts, and country experiences (2) a comparison between various empirical tests analysing microeconomic analysis of individual behaviour and challenges that affect the degree of inclusive finance in a country (3) an analysis of the progress towards collaborative efforts at various levels to achieve financial inclusion and (4) an offering of policy recommendations.

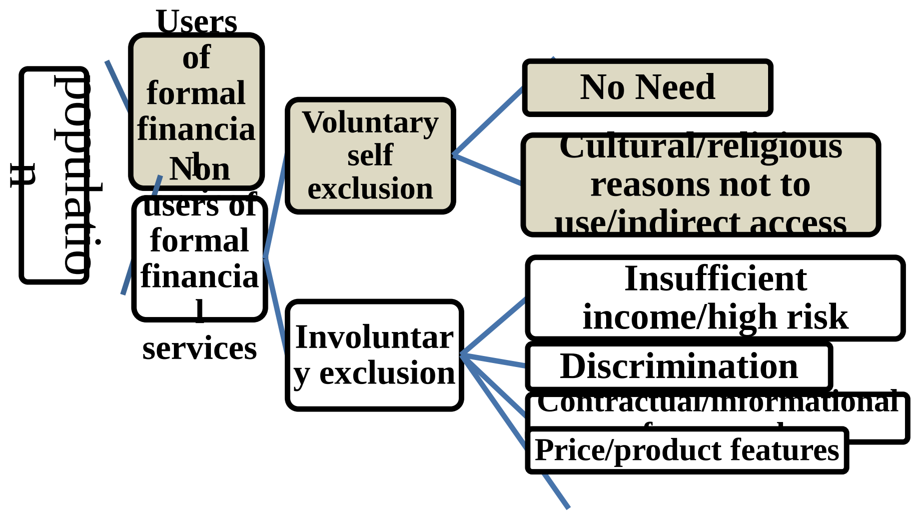
1. Literature Review

In order to engage in analysing the dynamics of financial inclusion as a concept in the context of changing globalization patterns, sustainable development goals, and technological innovation, a literature review was conducted as part of the methodology. Further analysis of previous literature includes country experiences that have experimented with and implemented financial inclusion.

1.1 Dynamic Nature of Financial inclusion

As more research engages with the topic, more globalization and more technological innovation takes places, the term financial inclusion exhibits a dynamic nature, with continual change. It is a process, which is responsible for making access much easier for low income groups. The financially excluded groups can be offered a simple financial services access for individuals and firms that use financial services. The different definitions of financial inclusion have emerged through time, but there are certain fundamentals that every definition approached which are the access, the ability, the level of income groups, the quality of financial services, and different needs of the financially of the excluded groups. The World Bank (2008) distinguishes between financial access and financial use as is evident in Figure One below.

Figure (1) Difference between Financial Access and Financial Use



Source: World Bank (2008)

In real terms, according to Beck et al (2007), there are two groups of individuals that exist users and non-users. Non-users are those who do not have access to financial services and are divided into voluntarily excluded individuals and involuntarily excluded individuals. Excluded groups who voluntarily do not use financial services find that there is no need for using such reasons more or less due to social, cultural, religious beliefs while involuntarily excluded groups are divided into four sub-groups according to the World Bank 2008,

a. "The unbankable": whether individuals or firms because of a lack of money to save or invest.
b. "The discriminated unbankables"
c. "The financially excluded because of rigid legal regulations"
d. "Unbankables" because of high costs of opening formal accounts.

According to Atkinson and Messy, 2013" The dynamic nature of financial inclusion allows it to enhance the engagement of both financial awareness and financial literacy while adding value to economic and social inclusion ". According to OECD; "*Financial inclusion refers to the process of promoting affordable, timely and adequate access to a wide range of regulated financial products and services and broadening their use by all segments of society through the implementation of tailored existing and innovative approaches including financial awareness and education with a view to promote financial well-being as well as economic and social inclusion*." A dynamic aand effective financial inclusion environment requires the existence of four elements (1) stable financial institutions governed by sound regulatory bodies (2) long term sustainability of financial intermediaries (3) flexibility and easiness of financial access to income groups at all levels and (4) continuous competition of financial intermediaries to enhance innovation in financial products(Mohieldin et al., 2011)

The evolving nature of financial inclusion focuses on providing simple and efficient procedures for the delivery of financial services to low-income groups (Awad and Eid 2018). Lenka and Bariq (2018) came our tha" ifinacail inclusion is a process that involves access to finance in groups disbursed in terms of financial services such as savings, payments, debt and online banking official with official bank accounts" Economist P. K. Ozilil argues that investment is a series of steps, especially those that use digital finance and technology, and thus further fosters financial data and individual investments". Lenka (2016) provides evidence of global factors influencing financial inclusion such as the quality of the institutions, to what extent the efficient of legal rules, getting a strong contract consolidation and inevitable political stability.All these factors would bring about financial inclusion. The existence of investment insurance schemes and promoting moretax incentive schemes also lead to greater financial inclusion.

1.2 Financial Literacy and Financial Knowledge

Financial literacy is defined as a set or combination of "awareness, knowledge, skills, attitude, and behaviours necessary to make sound financial decisions and achieve individual financial wellbeing" (Atkinson and Messy, 2012). Financial literacy is acknowledged with financial knowledge. According to the Nasr (2018), Alliance for Financial Inclusion (AFI), financial knowledge is the ability of individual groups whether households and/or businesses to identify the basic available financial services, financial products, institutions in order to efficient use them to their best interest. Financial knowledge for instance involves understanding and calculating interest rates on either loans and/or deposits. Low levels of financial literacy dictates into less financial inclusion (World Bank, 2008). OECD in 2015 concluded the attributions of low levels of financial literacy to the creation of barriers for small and medium enterprises, for women, in terms of financial services access. Other forms of financial illiteracy could be related to educational and/or language barriers, with marketing of financial services being conducted in unfamiliar written and spoken languages (Atkinson and Messy, 2012). Financial illiteracy is also an effect of the sophisticated terminology used by financial institutions complicated for the average user to comprehend.

1.3 Financial Inclusion: Building Financial Resilience

According to Khan (2011); "the pursuit of financial inclusion and financial stability are no longer policy options but policy compulsions." Although financial inclusion can be considered as a major contributor to economic growth, definitely it is not the separate dependant factor. In fact, there is a correlation between financial inclusion and keeping the financial stability (Awad and Eid, 2018). Diversifying operational risks among various clients is an urging request by financial institutions engaging in inclusive financial system creation, which eventually will progress into financial stability. According to United Nations report (2016) financial inclusion should "bring the poor into the formal econom or in an informal manner ". Economists Bruhn and Love (2014) state that "financial inclusion should increase the number of poor individuals who have the opportunity for financial access". Studies such as Malady (2016) finds that "increasing the number of official bank branches does not guarantee improved financial inclusion " as the most banks do not target excluded parties such people who live in rural areas as a key objective to get them more engages in the finacail process..

To build stable financial systems, resilience in times of crisis is a priority. Various economic theories discuss the various positive injections of financial inclusion into the different individual groups to increase financial stability and in return resilience. Primarily, for small and medium enterprises, easy access to credit works on a progressive manner towards building investment, creating self-sufficiency, boosting the well-being of excluded groups such, with classifications of microfinance loans to be with very low default rates lessening pressures and supporting project implementation (Morgan and Pontines, 2014). Second, various research brings forward a positive correlation between having a saving account, an increase in asset accumulation, enhancing competition through inclusive growth.

*1.4 **Analyzing Egypt's financial inclusion in Comparison to other Countries***

The reinforcement of inclusive financial systems as experienced by various countries depends on a variety of policies and/or technologies. Lessons learned from international successful stories such as Kenya and Malaysia in achieving higher levels of financial inclusion is good opportunities to build experience and implement their models in other economies.

The positive impact of the M-Pesa, a financial technology solution, more of a mechanism transferring money through mobile applications launched in 2007 in Kenya; this was evident in the increase of Kenyan users, 8.5 million with a total USD 3.7 billion in 2009 worth transactions (Mbiti and Weil, 2015). Positive effects of the M-Pesa were automatically felt in the flexibility and convenience of the payment system for different services, and it later transferred into growth in saving schemes, diversified solutions for small and medium enterprises, and remittance transfers (Jack and Turi, 2011).

Malaysia, through "compulsory policies of financial inclusion" after the 2008 financial crisis was successfully able to absorb 92% of adult populations in a variety of financial services, savings, loans, and payment solutions (Khan, 2011). The enhancement of a progressive plan to accomplish an inclusive financial system depended on the consolidation and merging of banks, the activation of a cashless national payment system, accommodating “Basic Banking Services” policies and procedures with no minimal balance required to open current bank accounts, and the introduction of the “Agent Banking Model” to promote the usage of financial technology solutions (Martinez, 2017). Similar to Egypt with low levels of financial literacy, Malaysia emerged a plan to increase financial education and awareness campaigns led by commercial banks to offer orientations to clients on different financial products and on the risks associated with them (Martinez, 2017). De Koker and Jentzsch (2013) in their study on Brazil to explain that the use of modern methods of technology is “instructive and progressive and able to deliver financial services to millions of poor Brazilians”. Meanwhile by applying on Sub-Saharan Africa region by Demirguc-Kunt and Klapper (2015) came out with the usefulness of this technology in enhancing financial inclusion. Furthermore, the lack of a strong effective ICT system would hinder to target discriminated groups in society such as women, the poor or uneducated people.

The revised literature provides only a qualitative analysis of the topic of investment in Egypt and developing countries in general. Available publications discuss regional investment activities rather than the performance of each country. This paper is important because it develops a model framework and definition of the relationship between investment, investment indicators, and the definition of investment in a particular Egyptian context, Recommendations are given on how Egypt can better engage in investment.

2. **A Comparison between Various Empirical Tests on Financial Inclusion**

2.1 Empirical Studies on Financial Inclusion Country Challenges

Progressing towards financial inclusion is dependent on the gradual overcoming of the citizens' financial illiteracy, the level of awareness of the importance of investment and the resilience of financial institution facilities. Several studies have proved a high correlation between the availability of banking branchs and the possibility of account ownership among low-income people. Economists Allen et al. (2016) conducted data-based research in 123 countries and more than 124,000 people , established a correlated relationship between investment and how easily accessible environment that provides financial services, such as lower banking costs, closer branches, stronger legal rights, political stability and fewer documents requirements account. Using the Global Bank Global Findex database of the World Bank, Zins and Weill (2016) concludes that, in Africa, investment indicators include higher education levels and higher incomes. Chithra & Selvam (2013) gives importance to the same definition of finance in India as income, literacy, population, deposit and debt

Empirical studies have been conducted to assess whether financial discrimination is affected by individual characteristics such income level whether the person rich or poor, male or female, urban or rural citizen. Such individuals face difficulties in being part of the financial system, especially because of illiteracy, lack of documents or personal guarantees, and the bad credit history. Researcher Allen (2016) analyzes the characteristics of individuals around the world and finds that the chances of having an account in a formal financial institutions are much higher than in the rich, educated, creative, urban, employed, married or separated people. Using a 2012 Global Findex, Fungácová and Weill (2015) study of investment in China, you will find that rich, well-educated, older men are more likely to have formal bank accounts. Individual attitudes based on the "deficit" problem create some barriers to investment, such as a lack of funding, a lack of documentation – understanding the procedures, or dishonesty. Distance, high costs, documentation requirements, and a lack of trust are obstacles to self-determination. Repeated barriers to the financial services of the poor, the less educated, the unemployed, or the rural population are costly, and the distance for rural people. The chances of legal savings are high for people with similar traits. Finally, the chances of legal borrowing increase in older, more educated, richer, and married men

Using the 2012 Global Findex of 98 developing countries, Demirguc-Kunt et al. (2013) found that there is a significant gender gap in account ownership, savings and legal debt. Swamy (2014) examines the impact of financial inclusion where women are the head of the family related to the male head of the household. The study found that the growth rate of inflation was 8.40% for women compared to 3.97% for men, indicating that the gender of the participant was undoubtedly influential. The findings of Aterido (2013) suggest that the existing gender gap in the financial sector is due to women's participation in the economy but not to the financial sector itself. Women are discriminated against, women likely to be taken out of the debt and do not replace it with a legal debt.

2.2 Empirical Studies on Financial Inclusion Country Challenges

Focusing on Egypt, according to Eissa and Rashdan 2020, a logistic regression analysis is conducted, with data extracted from the World Bank's Global Findex of 2017, to assess the degree of significance of individual characteristics on financial inclusion indicators as a means for analysing the degree of financial literacy and/or literacy and any other challenges that are hindering the process of inclusive finance.

Barriers to financial inclusion were questioned in terms of "which of the following would be a reason for you for not having a bank account or any other formal institutional account?" Variables are dummy variables, with an equivalence of one if the response is yes and an equivalence of zero if the response is no. Measures of financial inclusion include formal accounts, formal savings, and credit accounts (as indicators) with a sample size of 1000 individuals. In this context, a *formal account* is an individual account belonging to a financial institution or a mobile provider; *formal saving* is an individual account used for saving purposes in the past 12 months; and *formal credit* is individual borrowing from a financial institution in the past 12 months. Individual financial indicators are at the micro-level with characteristics of gender, age, income, and education in estimations being tested in accordance with the amount of account penetration, the purpose, motivation, and alternatives to formal finance which go in hand with the level of access, the use of financial services.

The above logistic regression helps in identifying the barriers to financial inclusion when opening a bank account or not, mainly whether poverty is the main barrier followed by poverty related issues such as

1. Income variations among individuals (high income versus low income individuals) indicated by lack of money to put in the bank account or not.
2. Educational levels and variations indicated by level of financial awareness and financial literacy.
3. Involvement in the labor market indicated by owning a formal account or not.
4. Individual confidence concerns in engaging in the inclusive financial system indicated by lack of documentation, trust or one family members with already existing accounts.
5. External factors that affect individual behaviour such as political, economic, and/or social turbulences currently for example the COVID-19 pandemic.
6. Gender gaps are significant or not to the implementation of financial inclusion
7. Age is an indicator of the motive of the individual, consume, save, use credit

Table 1 analysis and summarizes the results of the logistic regression, barriers to financial inclusion and owning a formal account, as applied in Egypt as stated in our previous research on Egypt the Determinants of Financial Inclusion in Egypt (Eissa & Rashdan 2020). Table 2 analyses and summarizes the barriers to financial inclusion in terms of saving in a formal account.

Table 1: Analysis of Barriers to Opening a Formal Financial Account in Egypt

Individual Barriers	Indicator	Relative Significant or not	Bigger Picture
Low-income individuals	Lack of money	(1) Most significant regardless of age, gender, and/or education.	Poverty-Related
Individual confidence as evident in lack of documentation, trust, etc.	Difficulty comprehending financial services. Lack of owning formal accounts	(2) Second most significant	Financial illiteracy and Financial unawareness
Low educational levels	Lack of owning formal accounts	(3) Significant	Poverty-Related Financial illiteracy and financial unawareness
Unemployed as indicated by the labor force	Lack of owning formal accounts Lack of money	(4) Significant	Poverty-related
External Political and Economic factors	Lack of money Lack of owning formal accounts	Not tested in the model	Poverty-Related Financial illiteracy and

			financial unawareness
Gender Gaps	Lack of owning formal accounts	Insignificant and parallel to the global context, Egypt case esults are consistent with Allen et al. (2016), where there is no significant relationship betweenbeing female and financial inclusion With 52% of the Egyptian population being male and 43.8% being female, there are relatively incomparable insignificant percentage differences and alternatively an insignificant relationship between gender and levels of financial inclusion	Gender Discrimination
Age	Lack of owning formal accounts	Relatively significant	Financial illiteracy

Source: The author based on previous research (Eissa and Rashdan 2020)

Table 2: Analysis of Barriers to Saving in Egypt

Individual Barriers	Indicator	Relative Significant or not	Bigger Picture
Low-income individuals	Lack of money	(1) Most significant regardless of age, gender, and/or education.	Poverty-Related
Individual confidence as evident in lack of documentation, trust, etc.	Difficulty comprehending financial services. Lack of owning formal accounts	(2) Second most significant	Financial illiteracy and Financial unawareness
Low educational levels	Lack of owning formal accounts	(3) Significant	Poverty-Related Financial illiteracy and financial unawareness
Unemployed as indicated by the labor force	Lack of owning formal accounts Lack of money	(4) Significant	Poverty-related
External Political and Economic factors	Lack of money Lack of owning formal accounts	Not tested in the model	Poverty-Related Financial illiteracy and financial unawareness

Gender Gaps	Lack of owning formal saving accounts	Significant A low probability of saving for women mainly due to lack of money, discrimination, and financial illiteracy. Women can hardly save either for a start-up micro business (-42 %) or for securing their financial status in old age (-13%).	Gender Discrimination
Age	Lack of owning formal accounts	Relatively significant	Financial illiteracy

Source: The author based on previous research (Eissa and Rashdan 2020)

In summary, low levels of financial literacy in Egypt are embedded with the vast majority of the sample tested neglecting the need to be financially included, 70.6% not having a formal account, 93.8% not having a savings account, and 96.4% not having a formal credit account.

3. Progress towards Collaborative Efforts at Various Levels to Achieve Financial Inclusion

A macroeconomic analysis of financial inclusion is conducted by pinpointing the importance of collaborative efforts towards achieving financial inclusion specially post-covid-19 and a comparative analysis of different country variations in implementing financial inclusion and

3.1 Collaboration among Public Entities

It is rather important to mention that post the COVID-19 Crisis, governments and countries worldwide prioritized collaborative efforts in achieving sustainable developmental goals. This is quite evident in Egypt as well with a series of collaborative efforts paralleled with individual efforts to enhance the implementation of financial inclusion as summarized in Table 3. On the governmental level, financial inclusion is able to effectively deliver the different welfare programs and social safety nets to the actual financially excluded beneficiaries. The Ministry of Social Solidarity therefore is able to construct reliable databases of poverty line estimates as percentages for future plans and programs (Awad and Eid, 2018). The Ministry of Finance, MOF since January 2019, engaged in a series of fiscal policies to support financial inclusion. To tangibly feel the alleviation of poverty and the enhancement of SDGs, structural reforms post-covid-19 crisis, urged the pushing through to further advance into more progress towards financial inclusion and financial digitalization by the Ministry of International Cooperation, through policies targeting all groups, to increase financial literacy raising awareness that financial inclusion is an economic growth enablerFinancial regulatory bodies such as the Central Bank of Egypt (CBE) and the Egyptian Financial Regulatory Authority (FRA) are the regulators of financial inclusion. Egypt's financial inclusion plan launched by the National Council for Payments NCP (Note 1) in 2016 was challenging in terms of transforming the economy to a cashless one. The NCP's goals act as a supervisory role of ensuring the successful activation of the process of financial inclusion primarily by the government, followed by the citizens. Goals include (1) the reduction of banknotes with governmental transactions that exceed EGP 20,000 to be processed using bank checks. Optional cashless international payment systems provided by the government to the citizens should be made available (CBE, 2017). (2) The motivation and continuous modernization of the national electronic payment system with the NCP advising governmental bodies to use "National Card Schemes" (national payment cards) which citizens could use to pay for governmental services.

Table 3: Collaborative Tools for Financial Inclusion in Egypt

Collaborative Efforts between	
MOF & CBE Government Fiscal Management Information System GFMIS	Government insistuiton to deliver the payments through banks electronically.
Individual Efforts	
MOF Tools	**Objectives**
Digital Platform for Taxation-Filing system	Payment through the net for taxpayers,
CBE Tools	**Objectives**
Innovative CBE Tools	
Electronic KYC(e-KYC) Anti-Money Laundering (AML) services without physical	Having formal bank account to attract new entrants to the financial

Fund worth of EGP 1 billion financial technology and payment	to support more creative ideas using systems
Full-fledged electronic banks to perform the financial services needed.	to offer all services using smart phones
Full-fledged SMEs banks in Egypt to support inclusive growth.	

Traditional CBE Tools	**Objectives**
Use of Mobile Wallets	To target microfinance institutions such as government social pensions, credit disbursements.
Cardless ATMs	Use mobile walleds for cash-in/cash-out.
International Money Transfers (IMT)	Trsnsfert the IMT into m-wallets.
Village Savings and Loans Associations (VSLA)	Enhance a warness of savings through organizing the particaipatinant to move to informal savings and credit groups to accumulate savings.
Fast-Moving Consumer Goods (FMCG)	Spread of digital payments for both customers and merchants as they begin to pay and collect money through their own wallets.
Mobile Merchant Payment QR codes	Transfers funds between customers to withdraw and convert to cash that puch the users to save funds in their wallets. Merchants with codes can complete all consumer transactions. As the consumers scan the merchant's account using smartphones for the transaction detail.
Nano-finance	Target the emergency loans by using mobile money to request low value emergency loans set according to the credit I score.
New Regulations for Mobile Payments	Transfers funds and remittances through mobile accounts.
Egyptian Taxation Authority Objectives	
POS Platform for schools and restaurants and future practices to move	Parents and clients pay fees

transactions	gradually to less cash
Parliament Objectives	
2019 Ratification of Law Non Cash Payments cash transactions for major tax	Decrease the volume of And salary payments.

Source: authors' work with data from **"***Facilitating Bank Account Transactions: Steps towards Financial Inclusion in Egypt"*

3.2 Collaboration of Public-Private Entities

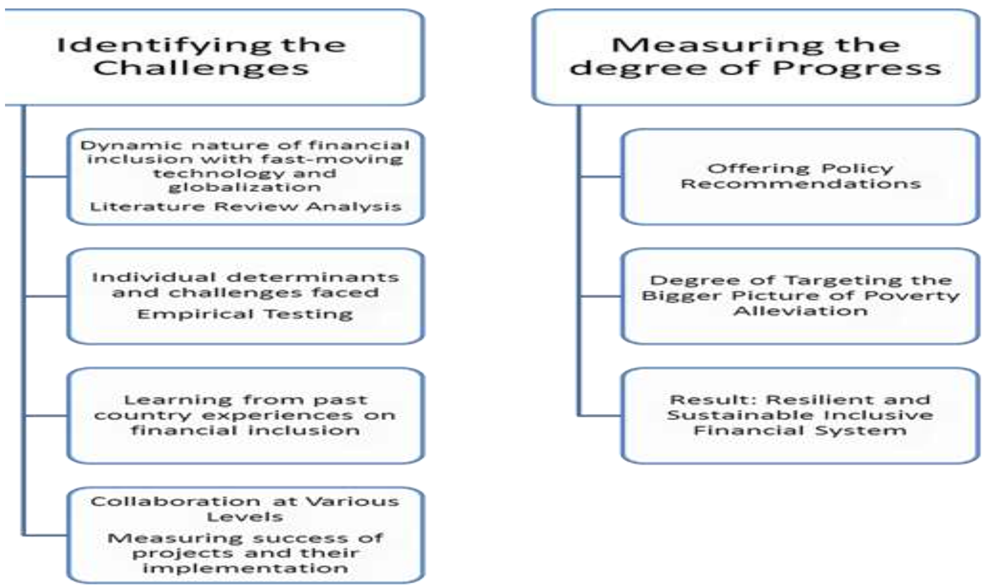
For investment to achieve poverty reduction, another act of co-operation between the public and private sectors, especially in the emerging economy, must emerge. Direct government interventions include the provision of social benefits to discriminate against social groups in society. An inclusive financial system attracts new businesses to join the legal profession to protect their payment systems and day-to-day operations (Cull, Ehrbeck, Holle, 2014). Players of private companies such as Fintech and other financial services companies offer digital financial products and services to the poor and discriminated against. For example, CBE has supported the Egyptian government in hosting the 2017 Alliance for Inclusive Financial Policy Summit, in which more than 94 international organizations and 119 international institutions participated. To this end, CBE and the National Women's Council (NCW) have agreed to work together to promote women's financial inclusion (Investment in Digital Financial Services and Fintech: The Case of Egypt, 2018).

4. Conclusion

Financial inclusion is a prerequisite in developing prosecess, especially from the view of a *process* that involves *access* to financial services for *low income financially excluded groups*. The study went through several integrative steps to assess the degree of implementing inclusive finance in Egypt as the core case study was able to come up with a model framework as shown in Figure Two below that could be used to analyse financial inclusion implementation.

Results convey a need for collaborative efforts towards financial inclusion to implement inclusive finance, pinpointing the gaps and challenges. The article recommends policy measures that would raise individual financial awareness robusting financial literacy, and pushing forward with the establishment of a stable and resilient financial system. The study urge for more financial awareness and financial literacy, it is important to direct investment in financial education campaigns, such as television commercials, educational programs, and to expand banking branches to reach citizens in urban and rural areas.

Figure Two: Model Framework for Finance Inclusion for Emerging Countries



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