

A Conceptual Framework of Financial Inclusion: The Links with Individuals, SMEs, and Banks



Fadi Shihadeh 

Abstract This chapter presents the conceptual framework of financial inclusion with linking to individuals, SMEs, and banks as these entities considering as demand and supply sides of financial inclusion. This paper address the definition and main factors of financial inclusion. Also, the importance and influence of financial inclusion in economic development and sustainability. Furthermore, how enhancing financial inclusion could influence people life and SMEs business, through access and using the formal financial services. Beside individuals and SMEs, this study drown how banks -as supply side- could develop their business and positively enhancing their performances. The recommendations focusing on formal institutions to develop the laws and enhancing the infrastructure, also motivating the financial services providers to develop more services according to people needing.

Keywords Financial inclusion · Banks services · Individuals · SMEs

1 Introduction

Global organizations identify financial inclusion as one of the main factors of poverty alleviation in less-developed countries [1]. According to the Consultant Group to Assist the Poor (CGAP), “financial inclusion means that households and businesses have access to and can effectively use appropriate financial services. Such services must be provided responsibly and sustainably, in a well-regulated environment” [2]. Where the World Bank defines financial inclusion as “access to and use of services provided responsibly and sustainably, and the delivery of financial services at affordable costs to disadvantaged and low-income segments of society.” The Palestine Monetary Authority (PMA) defines financial inclusion as enhancing access to financial services for all groups in society, at fair, transparent, and affordable costs [3]. Where, [4] define financial inclusion as the provision of financial services that benefit all members of society, without discrimination, at an affordable price, and in a suitable

F. Shihadeh (✉)
Palestine Technical University-Kadoorie, Tulkarm, Palestine
e-mail: f.shihadeh@ptuk.edu.ps

place, time, and form. The central point is that households (all members) and businesses should have access to financial services, especially those that face obstacles to financial inclusion, such as females, poor, youth, and small- and medium-sized enterprises (SMEs). Further, financial services should be designed to cover the needs of community members at affordable prices and continuously.

This study addresses the main points of financial inclusion. First, financial inclusion starts from “access,” which is considered the main step toward the use of financial services. This means having an account in a formal financial-services institution or having the ability to open an account and access financial services without facing obstacles. Access is a supply-side factor in financial service, such as banks, post offices, etc. Access means that financial-services providers are responsible for increasing their penetration levels within a country, especially in rural areas. Further, government institutions, in collaboration with financial-services providers, should focus on financial awareness and encourage society’s members to access and use financial services, [5]. Presently, more than half of the world’s adult population does not have a formal bank account, [6]. This high percentage indicates that global and official country-level institutions should work to enhance access levels, worldwide.

The second main factor is the “usage” of financial services. Having access to financial services does not necessarily translate to financial inclusion. For financial inclusion to lead to economic development, individuals and firms must be motivated to use financial services. This means developing services that meet their needs. For the disadvantaged, in particular, a lack of money is the primary factor behind their lower education levels, poor health outcomes, lower investment in job-creation activities, and fewer savings for the future.

The third main factor is that financial services providers provided responsibly and transparently for all individuals, groups, and firms in a country. Finally, these services should be offered to all at affordable and reasonable prices and continuously.

2 Why Financial Inclusion?

When members of a society are not included in its financial system (for example, the poor and SMEs), they need to rely on their limited resources to meet their financial needs and pursue promising growth opportunities. This lack of financial inclusion may hamper a country’s economic growth and development. “Financial inclusion can be a key driver of economic growth and poverty alleviation, as access to finance can boost job creation, reduce vulnerability to shocks and increase investments in human capital” [7]. Several types of research have been conducted to empirically test the effect of financial inclusion on economic growth, income inequality, and unemployment in several countries and regions [1, 8–10].

Global organizations seek to achieve sustainable development in less-developed economies through achieving several goals: poverty reduction, improved health outcomes, higher education levels, gender equality, increased employment, economic

growth, and sustainable development, where the financial inclusion addressed as an enabler of sustainable development goals [11]. Having access to financial sources encourages disadvantaged to save, invest, innovate, and create their businesses and, thus, create more jobs and decrease unemployment [1].

Having access to and use of formal financial sources helps the disadvantaged cover their needs, and some of these needs are urgent, such as medical care or meeting daily needs. Medical care and education are considered the leading indicators of and targets for sustainable development goals. Thus, enhancing the use of formal borrowing can enhance the sustainable development process. Youth, poor, and females, in particular, have less opportunity to earn money [2]; therefore, financial inclusion would allow them to borrow to invest in their future through education, by creating their businesses and by innovating through the use fast-developing technologies. Moreover, the financial inclusion of this disadvantaged group could positively reflect on the economy in several ways, including more money turning over in the economy, more job opportunities, more investments, and greater overall well-being for community members.

3 The Mechanism of Financial Inclusion

Researchers see financial inclusion as a key to financial development and economic sustainability. As most of the financially excluded are the poor, females, the illiterate, and youth who mainly live in rural areas and who make up society's most disadvantaged, [2, 12], researchers have focused on how these individuals deal with financial inclusion. Enhancing their level of access to financial sources is a key factor in improving their lives through employment, education, and healthcare. Enhancing financial inclusion means addressing both supply and demand sides of this vital factor, [13].

Moreover, It is not enough to encourage individuals and SMEs to access and use formal financial sources, while financial services providers fail to offer suitable and affordable services for the community members. Formal institutions, such as central banks, other financial regulatory authorities, ministries of finance, and other government institutions with an interest in financial inclusion and financial services, should work together to encourage the financial services industry to develop products and services that fit the real needs of community members. Banks as leading financial services providers can play an essential role [14]. They have the resources, technologies, tools, and manpower to develop and innovate the types of new products and services that can cover the needs of the disadvantaged, thereby helping them to become employable or to create and develop their businesses. This all leads to increased employment opportunities, poverty alleviation, and reduced unemployment, all of which lead to sustainable economic development. Meanwhile, an analysis of the individual characteristics that influence financial inclusion could lead to policies, regulations, and strategies that help shape a financial system that enhances the condition of people who have been excluded from the formal system. Figure 1, presents the mechanism of financial inclusion on banks, individuals, and SMEs.

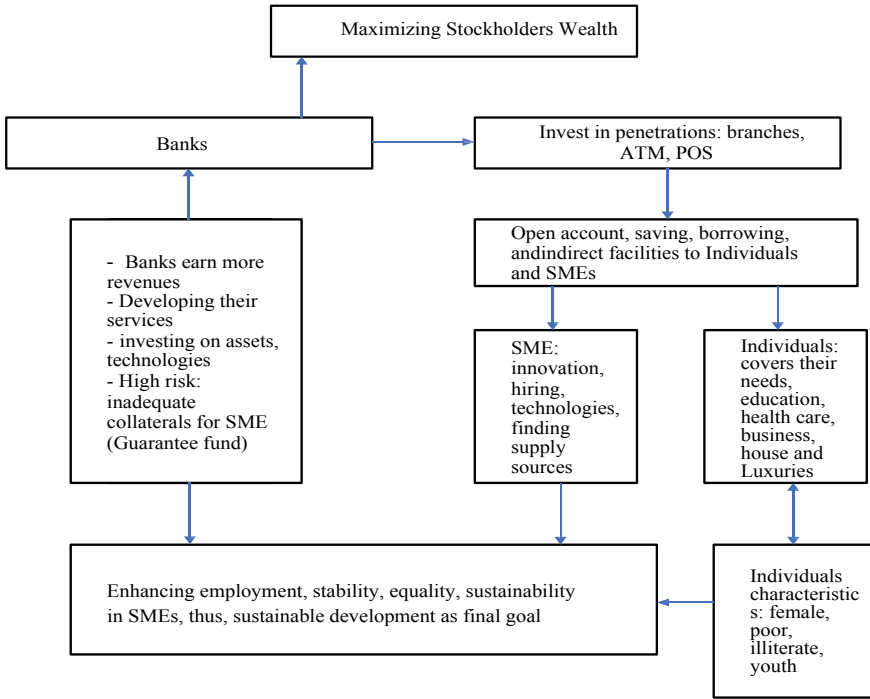


Fig. 1 The mechanism of financial inclusion. created by the author

4 How Financial Inclusion Influence the Demand and Supply Entities

As mentioned in the above sections, the philosophy of financial inclusion means that the formal financial system includes all citizens and entities to use the financial services. This section addresses the influence of financial inclusion on individuals and SMEs.

4.1 The Influence on Individuals

In their efforts to achieve sustainable development, policy-makers in developing countries continually face the triple challenge of poverty, inequality, and unstable economic growth [15]. Access to and use of formal financial sources for business development, education, healthcare, housing, and other needs can change individuals' lives for the better and, thus, enhance economic growth and sustainable development.

Financial inclusion is not the final target. Rather, it is a key factor in achieving development goals of economic growth, poverty reduction, and gender equality in education, health care, and work opportunities and, thus, in having the necessary resources for sustainable development [1]. Governments are working to ensure that all citizens are involved in the development process. Strategies aim to include them in the formal financial system, where they can open an account, make deposits, save money and use the formal financial services so they can cover their needs and participate in the development process. Poverty and inequality naturally occur in society. The question is to what minimum level these factors can be reduced without hindering the process of economic growth and sustainability.

In the past decade, several studies have examined the influence of financial access, as a financial inclusion indicator, on economic growth and development [e.g. 16, 10, 17]. The results show that enhancing financial inclusion leads to a decrease in inequality; however, its influence on poverty alleviation is not evident. Enhancing financial inclusion positively reflects on economic stability by attracting deposits to the banking system [10]. Further, Jin [18] points out that, in African and Latin American countries, financial inclusion can reduce the gap between the rich and poor. Where the recommendation is that governments promote financial inclusion by restructuring financial regulations to enhance the level of financial access to the poor and middle-income members of society.

Having a formal account consider as primary driver toward the use of formal financial services. Global institutions such as the World Bank, IMF, and other organizations have been working with central banks and other formal financial institutions to formulate policies and regulations that aim to increase the percentage of citizens with formal accounts. However, some barriers remain; these are addressed in World Bank surveys that measure financial inclusion, worldwide, [19]. In the survey, respondents noted their reasons for not having a bank account as being lack of money, too far away, too expensive, lack of trust, lack of documentation, religious reasons, or if a family member has an account [17, 20]. For “lack of money”, the reason given is that some banks charge a fee for opening an account and another fee for managing an account. Another issue is that the disadvantaged do not have enough money to save at the bank. Thus, they do not need to open an account just for the sake of having one. For “too expensive”, people were deterred by the fee charged for opening an account for the first time or for the monthly fee for maintaining an account [21].

“Lack of documentation” means that people do not have identity cards to use at a bank. For “lack of trust”, people reported that they do not trust formal financial institutions with their savings nor do they trust their services. For “religious reasons”, such as the Islamic religion, there are rules associated with dealing with financial services institutions, especially with banks. These rules influence the access level to formal financial institutions [22, 23]. Furthermore, in some economies and countries, if someone in the family has a formal account, then this is enough for other members to not have one. These reasons addressed in the World Bank survey and considered as barriers to not have a formal account.

Some of these barriers are related to the demand side of financial services, such as lack of money, if a family member has a formal account, lack of documentation,

and religious reasons; whereas other barriers are related to the supply side, such as too expensive, too far away, and lack of trust [24]. Governments can devise rules and regulations that encourage banks and other financial services providers to enhance citizens' abilities to obtain formal accounts and, thus, to use the formal financial system. For example, governments and formal institutions can work together to enhance financial awareness among citizens so they can see the importance of having an identity card. They can also work together to develop services that are sensitive to religious issues and that can be offered through specialized financial institutions [22, 23, 25–29]. Further, on the supply side, financial services providers can either reduce their fees or offer to open accounts free of charge; they can also increase banking penetration in rural areas to reach all citizens. More effort can be made to enhance trust in the financial system and financial services providers, such as the banks.

4.2 *The Influence on SMEs*

SMEs are important to an economy due to their percentage of the total number of firms and, thus, their contribution to GDP, in creating jobs and adding value to economic productivity [30]. In emerging economies, SMEs contribute to approximately 40% of GDP and around 60% of total employment [31].

Due to the importance of SMEs to an economy, researchers, policy-makers, and economists have examined the factors that influence SMEs' performance and, thus, their contribution to employment and growth. They found that access to financial sources is the main obstacle to SMEs' growth [30, 32, 34–36]. The nature of SME firms limits their access to resources, mainly financial, technological, and labor. SMEs in developing countries suffer from low credit ratings. In the Middle East, North Africa, Afghanistan, And Pakistan (MENAP), less than 10% of SMEs have access to the financial resource, through lines of credit or other resources because they do not meet credit-rating requirements. Most studies found several issues, including lack of collateral, weakness in the management of financial systems, and unstable profitability [37, 38]. These limitations continuously reflect on their ability to innovate and grow. To ensure that SMEs fulfill their role in innovation, job creation, and economic stability and growth, government institutions and formal financial sources should work to assist SMEs in overcoming the obstacles they face. The global agenda should aim to enhance financial inclusion through reforming rules and regulations and the financial infrastructure to provide a suitable environment for SME growth, [12].

Reforming the infrastructure and innovating services to address the needs of SMEs will enable banks to lend more to these entities, at lower risk, thereby, increasing profits in the long term [33]. When banks attract SMEs' deposits and they improve their liquidity by improving the lending environment. However, enhancing financial inclusion for SMEs depends on the initiatives taken on two sides. On the one hand, for governments and official institutions, reforming the financial infrastructure would mean developing rules and regulations related to collateral issues and the prices of

products and services. Financial-services should develop product services that suit the needs of SMEs in terms of both the type and price [30]. On the other hand, SMEs can aim for efficient management and financial systems to enhance their performance and decrease their risk.

Financial inclusion for SMEs means providing access and use of a diversity of formal financial services and funding sources continuously. It also means making them aware that some banks and monetary financial institutions offer analysis and technical consultancy services. These services and funding sources can help SMEs innovate, develop their products and distribution channels, reach new markets, and invest more in technologies to enhance their performance and grow their businesses. These developments could positively reflect on job creation, reduction in poverty and inequality, and increased innovation and improved living standards and, thus, economic growth. Therefore, achieving sustainability development goals (SDG).

4.3 The Influence on Banks

Banks are the main players in the financial sector. They enhance financial inclusion and their performance, profits, and revenues through their variety of services and innovation, including online banking, digital channels, through penetration, and investments.

4.3.1 Banking Services

Banks can benefit from the developing services that meet clients' daily needs [13, 14]. One central principle for firms is continuity. Banks, as firms that work under this principle, offer services and facilities to individuals and SMEs to earn more revenues and profits. Community members increasingly seek new services to cover their needs, according to the developments of their daily lives. Therefore, to efficiently maintain the continuity of their products and services, banks should ensure that they keep pace with the needs of their clients. Growing their operations through enhancing financial inclusion means continually developing banking services.

4.3.2 Banking Penetration

Banks use multiple channels through which to supply their products and services to their customers (i.e., branches, mobile banking, ATMs, internet banking, and telephone banking), [39]. To earn more profits, banks expand their networks through POS, ATMs, branches, and other electronic terminals [40, 41]. They aim to attract deposits, reach more customers, and offer direct and indirect credit and other services. Opening new branches allow banks to invest in technology and equipment and hire more staff. This benefit the local economy as it allows individuals to access formal

financial services, especially in disadvantaged areas [42]. Through branches, banks can offer their services and receive feedback from their customers [14, 29]. This enables them to innovate services that are directed to youth, women, craftsmen, and farmers, population groups that are typically marginalized when it comes to access to credit. In offering these services through their branches, banks can earn more profits, especially if this expansion comes with innovative services and suitable conditions for credit, such as reasonable collateral requirements and costs, [13, 43].

When banks invest generate new services to address customers' needs, they achieve suitable returns, which they use to enhance their performance. Taking this approach means an increase in capital expenditures and profits might decrease in the short run, due to the cost increment. As most banks cannot achieve earnings from this type of short-term development, they aim to enhance their earnings over the long term.

There are also costs related to ATMs and ATM services. These include the purchase or lease and maintenance of the machines and the cost of new technology and security. These conditions apply to services at the point of sale. As these are deemed essential services and as essential services are usually offered free of charge, they do not provide direct revenues for banks. However, banks that provide these services can generate earnings by attracting new customers and their deposits. This approach enhances its ability to lend money to (demand-side) clients. ATMs also enhance customer loyalty [44]. Increasing the number of ATMs could also lead to new customers opening up accounts and, thus, increased bank deposits [45]. Some banks use ATMs to lend money to customers, offer new services, or allow customers to pay their bills (school fees, university tuition, telephone charges, electricity and water charges, and taxes) [46, 47].

4.3.3 Services Innovation

[45] linked service innovation with improvements in having a formal account and payment tools, such as electronic cards. Enhancing these tools improves financial inclusion level. However, the associated costs include risk, market research, advertising, training, and delivery channels. These types of costs have no direct effect on profits until customers use the new services, but banks can earn profits, from new services, in the long term, [14]. However, creating a new service also poses challenges for banks and the financial system because customers may not find the new service to be useful and may not utilize it [26].

Innovation as an essential issue for any sector of the economy. Therefore, Banks innovates their services to enhance their competitive advantage [48, 49]. Several empirical studies address the significant impact of financial innovation on banks' performance [50, 52, 52–55]. On the one hand, these innovations must take into account the needs of individuals and SMEs, thus, how these services can enhance an individual's daily lives and SMEs' performance. On the other hand, researchers argue about the causality of financial innovation on financial institutions' performance, especially that of the banks.

There are two approaches to service innovation. On one side, banks can innovate their services to cover their customers' needs. They can use their networks (i.e., branches, ATMs, offices, online channels) to find out what customers are looking for, and at what price, through feedback and inquiries. Thus, banks can find gaps in the services offered in the community and, then, develop these services or introduce new ones and attract more deposits and new clients. On the other side, banks can work on market research to find out what new services can be developed. They can motivate their customers to see a new need, based on the level to which the economy is developing and the level of technology use and business entrepreneurship. This kind of innovation could help banks attract more clients, deposits, and decrease their risks through the diversification of services, thereby, increasing revenues and profits.

4.3.4 Online Banking and Digital Channels

Credit cards, debit cards, mobile banking, and internet services are used to deal with financial services, both locally and internationally. Banks use these channels to offer and promote their services and, thus, enhance their investment and profits. They also reduce their risk. For example, before extending a line of credit, banks require customers to guarantee that both the credit used and the interest owed will be covered. Banks have also addressed the issue of increased technological risk and the possibility of fraud and have reduced credit and liquidity risks [44]. Banks earn more profits from credit cards, but they also suffer from the additional risks associated with extending credit [56].

Increasing the use of online tools allows banks to invest more in these tools. Offering online banking as a service decreases the number of visits to branches and reduces the associated costs [58], for example, in the use of paper and employees' time spent on delivering services on a person-to-person basis at bank branches. Through online banking, customers can easily access financing, transfer money, and pay utility bills, thereby, increasing monetary turnover, business innovation, and work opportunities in the economy [45]. Moreover, as online banking is less costly, banks can earn more revenues from individual transactions. Some of these revenues do not directly come from online services. For example, Banks usually offer online banking to new users free of charge; this encourages existing customers to use this service, and it could attract more customers to open an account, thus leading to the increased use of other banking services, [59].

Online banking can help banks reduce operating costs and increase operating revenues, thereby, achieving efficiencies [59]. Further, enhanced customer use of online banking will reflect on banks' performance [60]. When banks encourage customers to open accounts through online banking, where they can transfer money or make deposits at any time, these banks achieve more efficiency and profits than other banks [16]. However, the efficiencies gained and profits earned depend on several issues, such as internet access and cost, and prospective clients' financial awareness [62].

4.3.5 Banking Investment

Banks base their targets on maximizing profits and revenues, thus, maximizing stockholder value [13, 63]. They invest their capital in opening new branches, offices, and ATMs, acquiring new technologies and equipment, in market research, hiring and training staff, and innovations and developing new services. These types of investments have helped banks achieve and enhance their targets, including increasing financial inclusion.

The philosophy of financial inclusion means including more citizens in the formal financial system of government institutions and financial-services providers. The banks are the leading financial-services providers in terms of attracting deposits and offering credit and other services. To provide these services, they seek to earn more revenue and enhance their performance indicators. They also focus on decreasing their costs and risks by balancing their loan portfolios; that is, they balance their loans to individuals and SMEs with other kinds of investments, such deposits in other banks and financial institutions.

Whereas banks seek to enhance their performance indicators, citizens want to cover their daily needs, enhance their living standards, and establish their businesses through access to financial sources. Thus, financial inclusion means matching banks' targets and people's needs. When banks enhance financial inclusion through banking penetration and the provision of suitable services at affordable prices, this can increase their profits and performance indicators.

4.3.6 Banking Competition

Banks compete within economies, countries, and regions. This competition could be enhanced through increased banking penetration (i.e., branches, offices, ATMs, POSs); services innovation; developing mechanisms to offer services through affordable pricing, collateral requirements, and other procedures; and activating and enhancing online services [13]. This competition motivates banks to develop their business and services, thus, attracting more clients and deposits, which are considered the primary revenue sources for commercial banks. These developments in financial services provide an appropriate environment for using formal financial services to develop businesses, innovate, and encourage entrepreneurship among youth, females, and small firms, thereby creating more jobs, decreasing unemployment, and achieving economic growth and sustainable development.

4.4 Financial Development, Economic Growth, and Stability

One key to enhancing economic development is enhancing financial inclusion [64, 65]. One main factor in enhancing financial inclusion is to reform the financial infrastructure through laws and regulations, payment systems, and collateral requirements.

A considerable amount of research points to the need for countries and economies to direct more effort toward reforming the infrastructure of their financial systems [14]. This reform would include financial intermediation for all types of financial institutions (i.e., banks, money exchangers, stock markets, brokerage companies, and insurance companies, microfinance institutions, leasing companies). These institutions provide several services to society's individuals and firms. Therefore, reforming the regulations that link these institutions and their customers will reflect on the financial-development indicators and the access to and usage of financial services [66–68].

Developments in financial intermediation should reflect on the level of trust in these institutions and, thus, their ability to offer their services through savings and deposits. Many companies offer their services through banks as they play a critical role in the surplus and deficits of business units. Some of these services include insurance and stock purchases. Therefore, through a policy of financial inclusion whose goal is to include more people in the financial system, banks can attract deposits, offer loans, and other services.

Reforming the financial system reflects on both financial inclusion (individuals and firms at the micro-level) and financial development (stock markets, private credit as a percentage of GDP at the macro level). In some empirical studies, no relationship is made between financial development and economic growth as targets for countries [69]. Other studies point out the general relationship between these two factors (Levine, [70–75]. Where, other studies found that there is a definite relationship between the ability of the financial system to ensure financial inclusion and how a country develops, [76]. They also point out that there is a definite significant relationship between financial-inclusion indicators and economic growth. Enhancing the level of credit in an economy could reflect on its growth and development [77].

Furthermore, reforming the financial system to achieve financial inclusion will mean that more individuals and firms will become engaged in the financial system, and this can enhance the financial stability of the economy [66, 78]. In addition, empowering households and SMEs will enable them to face financial and economic shocks [79, 80]. Indirectly, a financial inclusion that enhances access to and usage of financial services could enhance productivity and innovation, both of which lead to economic growth [74, 75, 81].

5 Conclusion and Policy Recommendations

Financial inclusion considered a vital topic in economics and financial studies. It contributes to improved economic and social indicators, particularly among the disadvantaged members of societies, and it significantly contributes to economic growth and sustainable development. This study presents the mechanism and theoretical framework of financial inclusion. This framework shows the definition and dimensions of financial inclusion and its importance, according to the relevant global institutions. It discusses the influence of enhancing financial inclusion on both demands-

(individuals and SMEs) and supply-side entities (mainly banks). It also presents how financial inclusion influences banks' activities, such as in investment in products, services, innovation, and network expansion, and bank competition.

The main points show the vital role financial inclusions play in social and economic development. The finance literature has widely examined financial inclusion, its promotion and enhancement, and its impact on individuals and SMEs. Banks use their resources and technologies to develop products and services at affordable prices, under fair conditions, and extend their reach to the disadvantaged members of society. In this way, they enhance their performance, reduce their risk, and earn profits, while contributing to increased standards of living and overall economic development. When individuals have access to formal financial services, they can enhance their ability to increase their level of education and access to health care and invest in their businesses. This results in poverty alleviation and the achievement of equality between males and females in opportunities for work. Further, SMEs can use financial sources to develop their businesses, find new markets, and improve their growth and sustainability.

This study presented a theoretical framework of the connection between banks' targets and citizens' needs through financial inclusion. The connection between formal financial institutions, particularly the banks, and citizens and SMEs, directly contributes to long-term economic growth and sustainability. Moreover the current study recommend that future research could focus on online banking services according to the COVID 19 pandemic and how using online services will influence living for individuals and firms thus the influence on banks performance and risk.

Reference

1. Consultative group to assist the poor, CGAP (2016) Achieving the sustainable development goals, the role of financial inclusion. <https://www.cgap.org/publications/achieving-sustainable-development-goals>.
2. Consultative group to assist the poor, CGAP (2012) Annual report, advancing financial access for the world's poor. www.cgap.org/sites/default/files/CGAP-Annual-Report-Dec-2012.pdf
3. Palestine monetary authority (2018) "www.pma.ps"
4. Aduda J, Kalunda E (2012) Financial inclusion and financial sector stability with reference to kenya: a review of literature. *J Appl Financ Bank SCIENPRESS Ltd* 2(6):1–8
5. Wang X, h., & Shihadeh, F. h. (2015) Financial inclusion: policies, status, and challenges in palestine. *Int J Econ Financ* 7(8):196–207. <https://doi.org/10.5539/ijef.v7n8p196>
6. World Bank (2017) Small and medium enterprises (SMEs) finance. <https://www.worldbank.org/en/topic/financialsector/brief/smes-finance>
7. Ben Naceur S (2014) ACCESS to finance for small and medium-sized enterprises in the MENAP and CCA regions. International Monetary Fund. <https://www.imf.org/external/pubs/ft/reo/2014/mcd/eng/>
8. Turegano DM, Herrero AG (2018) Financial inclusion, rather than size, is the key to tackling income inequality. *Singapore Econ Rev* 63(01):167–184
9. Claessens S (2006) Access to financial services: a review of the issues and public policy objectives. *World Bank Res Observer* 21(2): 207–40. <https://doi.org/10.1093/wbro/lkl004>

10. Neaime S, Gaysset I (2018) Financial inclusion and stability in MENA: evidence from poverty and inequality. *Financ Res Lett* 24):230–237. <https://doi.org/10.1016/j.frl.2017.09.007>
11. World bank (2020). <https://www.worldbank.org/en/topic/financialinclusion/overview>
12. Angori G, Aristei D, Gallo M (2019). Lending technologies, banking relationships, and firms' access to credit in Italy: the role of firm size. *Appl Econ* 51(58): 6139–6170. <https://doi.org/10.1080/00036846.2019.1613503>
13. Shihadeh F, Liu, B (2019) Does financial inclusion influence the banks risk and performance? Evidence from global prospects. *Acad Acc Financ Stud J* 23(3):1–12. <https://www.abacademies.org/articles/DoesFinancial-Inclusion-Influence-the-Banks-Risk-and-Performance-1528-2635-23-3-403.pdf>
14. Shihadeh FH, Hannon A, Guan J, Ul Haq I, Wang X (2018) Does financial inclusion improve the banks' performance? Evidence from Jordan. In: John W. Kensinger (ed.) *Global tensions in financial markets (research in finance, volume 34)* emerald publishing limited pp 117–138. <https://doi.org/10.1108/S0196-382120170000034005>
15. Novignon J, Nonvignon J, Mussa R (2018) The poverty and inequality nexus in Ghana: a decomposition analysis of household expenditure components. *Int J Soc Econ* 45(2):246–258. <https://doi.org/10.1108/IJSE-11-2016-0333>
16. Honohan P (2004) Financial development, growth and poverty: how close are the links. In: Goodhart, C. (Ed.), *financial development and economic growth: explaining the links*. Palgrave, London, UK
17. Demirgüç-Kunt A, Klapper LF (2012) Measuring financial inclusion: the global index database, World bank policy research working paper 6025, World Bank, Washington, DC
18. Jin D (2017) The inclusive finance have effects on alleviating poverty. *Open J Soc Sci* 5:233–242. <https://doi.org/10.4236/jss.2017.53021>
19. Demirguc-Kunt A, KlapperL, Singer D, Ansar S, HessJ (2018) Global index database 2017 measuring financial inclusion and the fintech revolution. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/29510> License: CC BY 3.0 IGO
20. Demirgüç-Kunt A, Klapper L, Randall D (2014) Islamic finance and financial inclusion: measuring use of and demand for formal financial services among Muslim adults. *Rev Middle East Econ Financ* 10(2):177–218
21. Allen F, Demirgüç-Kunt A, Klapper L, Peria MSM (2016) The foundations of financial inclusion: understanding ownership and use 30. <http://dx.doi.org/https://doi.org/10.1016/j.jfi.2015.12.003>
22. Demirgüç-Kunt A, Klapper LF, Singer D (2013) Financial inclusion and legal discrimination against women: evidence from developing countries, Policy research working paper 4616, The World Bank
23. Ben Naceur S. (2014), "Access to finance for small and medium-sized enterprises in the MENAP and CCA regions, International Monetary Fund. www.imf.org/external/pubs/ft/reo/2014/mcd/eng/
24. Zins A, Weill L (2016) The determinants of financial inclusion in Africa. *Rev Dev Financ* 6(1):46–57
25. Zhang Q, Chen R (2015) Financial development and income inequality in China: an application of SVAR approach. *Procedia Comput Sci* 55:774–81. [10.1016/j.procs.2015.07.159](https://doi.org/10.1016/j.procs.2015.07.159)
26. Beck T, Senbet L, Simbanegavi W (2015). Financial inclusion and innovation in Africa: an overview. *J African Econ*, 24(sup1): i3–i11. doi: <https://doi.org/10.1093/jae/eju031>
27. Beck T, Demirgüç-Kunt A, Honohan P (2009). Access to financial services: measurement, impact, and policies. *World Bank Res Observer*, 24(1):119–145. <https://doi.org/https://doi.org/10.1093/wbro/lkn008>
28. Shihadeh FH (2018) How individual's characteristics influence financial inclusion: evidence from MENAP. *Int J Islamic Middle East Financ Manage* 11(4):553. <https://doi.org/10.1108/IMEFM-06-2017-0153>
29. Shihadeh FH (2019) Individual's behavior and access to finance: evidence from Palestine. *Singapore Econ Rev*. <https://doi.org/10.1142/S0217590819420025>

30. Gozzi JC, Schmukler SL (2015) Public credit guarantees and access to finance. *Euro Econ Banks Regul Real Sect* 2:101–117
31. World Bank (2017). Small and Medium Enterprises (SMEs) finance. <https://www.worldbank.org/en/topic/financialsec-tor/brief/smes-finance>
32. International Monetary Fund (2014). Access to finance for small and medium-sized enterprises in the MENAP and CCA regions. <https://www.imf.org/external/pubs/ft/reo/2014/mcd/eng/>
33. Wellalage N, Locke S (2017). Access to credit by SMEs in South Asia: do women entrepreneurs face discrimination. *Res Int Bus Financ*, 41:336–346. <http://dx.doi.org/https://doi.org/10.1016/j.ribaf.2017.04.053>
34. Shinozaki S (2012). A new regime of SME finance in emerging Asia: empowering growth-oriented SMEs to build resilient national economies. ADB working paper series on regional economic integration 104
35. De la Torre A, Martinez Peria MS, Schmukler SL (2010) Bank involvement with SMEs: beyond relationship lending. *J Bank Financ* 34(9):2280–2293
36. Petersen MA, Rajan RAG (1994) The benefits of lending relationships: evidence from small business data. *J. Fin.* 49 (1):3–37
37. Beck T, Demirguc-Kunt A, Maksimovic V (2008) Finacing patterns around the world: the role of institutions. *J. Fin. Econ.* 90:467–487
38. Hoehle H, Huff S (2012) Advancing task-technology fit theory: a formative measurement approach to determining task-channel fit for electronic banking channels. In: Hart DN, Gregor SD (eds) *Information systems foundations: theory building in information systems*. ANU E Press, Canberra, pp 133–169
39. Berger AN, Leusner JH, Mingo JJ (1997) The efficiency of bank branches. *J Monetary Econ* 40(1):141–162
40. Hensel ND (2003) Strategic management of cost efficiencies in networks: cross-country evidence on European branch banking. *Euro Financ Manag* 9(3):333–360
41. Nguyen HLQ (2015). Do bank branches still matter? the effect of closings on local economic outcomes. Department of economics, Massachusetts Institute of Technology, Cambridge, MA
42. Shihadeh F (2020) The influence of financial inclusion on banks' performance and risk: new evidence from MENAP. *Banks Bank Syst* 15(1):59–71. [https://doi.org/10.21511/bbs.15\(1\).2020.07](https://doi.org/10.21511/bbs.15(1).2020.07)
43. Monyoncho, I (2015) relationship between banking technologies and financial performance of commercial banks in kenya. *Int J Econ Comm Manag* 3(11):784–814
44. Frame WS, White IJ (2012) Technological change, financial innovation, and diffusion in banking. in *The Oxford handbook of banking*, chapter 19, Oxford University Press
45. Martins C, Oliveira T, Popović A (2014) Understanding the internet banking adoption: a unified theory of acceptance and use of technology and perceived risk application. *Int J Inf Manag* 34(1):1–13
46. Lee KC, Chung N (2009) Understanding factors affecting trust inand satisfaction with mobile banking in Korea: a modified DeLone and McLean's model perspective. *Interact Comput* 21(5–6):385–392
47. Frame WS, White IJ.(2004). Empirical studies of financial innovation: lots of talk, little action? *J Econ Lit* 42(1):116–144
48. Batiz-Lazo B, Woldesenbet K (2006) The dynamics of product and process innovation in UK banking. *Int J Fin Serv Manag* 1(4):400–421
49. Ngari JMK, Muiruri JK (2014) Effects of financial innovations on the financial performance of commercial banks in Kenya. 4(7): 51–57. www.ijhssnet.com
50. Akhisar I, Tunay B, Tunay N (2015). The effects of innovations on bank performance: the case of electronic banking services. In: *World conference on technology, innovation and entrepreneurship, procedia – social and behavioral sciences*, vol 195, pp 369–375
51. Sansone M, Formisano V (2016). marketing innovation and key performance indicator in banking. *Int J Mark Stud* 8(1): 44–56. <https://doi.org/10.5539/ijms.v8n1p44>
52. Mabrouk A, Mamoghli C (2010) Dynamic of financial innovation and performance of banking firms: context of an emerging banking industry. *Int Res J Financ Econ* 5:2010

53. Akram JK, Allam MH (2010). The impact of information technology on improving banking performance matrix: Jordanian banks as case study. In: European, mediterranean & middle eastern conference on information systems 2010. 12–13 April 2010, Abu Dhabi, UAE.
54. Hasan I, Schmiedel H, Song L (2010). Return from retail banking and payments. Bank of Finland research, discussion papers no 3
55. Sinkey JF, Nash RC (1993). Assessing the riskiness and profitability of credit-card banks. *J Finan Serv Res* 7:127–150. <https://doi.org/https://doi.org/10.1007/BF01046902>
56. Humphrey DB (1994) Delivering deposits services: ATMs versus branches. *Econ Q Fed Reserve Bank Richmond* 80:59–81
57. Shihadeh F (2020). Online payment services and individuals behavior: new evidence from the MENAP. *Int J Electr Bank*. <https://www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijebank>.
58. Simpson J (2002) The impact of the internet in banking: observations and evidence from developed and emerging markets. *Telematics Inform* 19:315–330
59. Stoica O, Mehdiian S, Sargu A (2015) The impact of internet banking on the performance of romanian banks: DEA and PCA approach. *Procedia Econ Financ*. 20:610–622. [https://doi.org/10.1016/S2212-5671\(15\)00115-X](https://doi.org/10.1016/S2212-5671(15)00115-X)
60. Hernando I, Nieto M (2007) Is the Internet delivery channel changing banks' performance? the case of Spanish banks. *J Bank Financ* 31(4): 1083–1099. <https://doi.org/https://doi.org/10.1016/j.jbankfin.2006.10.011>
61. Atay E (2008) Macroeconomic determinants of radical innovations and internet banking in Europe. *Ann Univ Apulensis Ser Oeconomica* 2:10
62. Pilloff SJ (1996) Performance changes and shareholder wealth creation associated with mergers of publicly traded banking institutions. *J Money Credit Bank* 28(3):294–310. <https://doi.org/10.2307/2077976>
63. Chibba M (2009) Financial inclusion, poverty reduction and the millennium development goals. *Eur J Dev Res* 21:213–230
64. Pouw NG, Gupta (2017) Inclusive development: a multi-disciplinary approach. *Curr Opin Environ Sustain* 24:104–108. <https://doi.org/10.1016/j.cosust.2016.11.013>
65. World Bank (2013). Financial Inclusion in Brazil: Building on Success 8314
66. Prasad E 2010 Financial sector regulation and reforms in emerging markets: an overview. NBER Working Paper 16428, Cambridge, MA
67. Cull R, Demirgüç-Kunt A, Lyman T (2012) financial inclusion and stability: what does research show? CGAP, Washington DC
68. Hassan MK, Sanchez B, Yu JS (2011) Financial development and economic growth: New evidence from panel data. *Q Rev Econ Financ* 51(1):88–104. <https://doi.org/10.1016/j.qref.2010.09.001>
69. Levine R (1997) Financial development and economic growth: views and agenda. *J Econ Lit* XXXV, 688–726. <https://www.jstor.org/stable/2729790>
70. Levine R (2002) Bank-based or market-based financial systems: which is better? *J Financ Intermediation* 11(4):398–428
71. Levine R (2005) Finance and growth: theory and evidence. *Handbook Econ Growth* 1:865–934
72. Beck T, Levine R (2004) Stock markets, banks, and growth: panel evidence. *J Bank Financ* 28(3):423–442
73. Levine R, Zervos S (1998). Stock markets, banks, and economic growth. *Am Econ Rev*, 537–558
74. Levine R, Loayza N, Beck T (2000) Financial intermediation and growth: causality and causes. *J Monetary Econ* 46:31–77. [https://doi.org/10.1016/S0304-3932\(00\)00017-9](https://doi.org/10.1016/S0304-3932(00)00017-9)
75. Agyekum F, Locke S, Hewa Wellalage N (2016) Does financial accessibility and inclusion promote economic growth in low income countries (LICs). In: Elaine M (ed) *Financial performance analysis, measures and impact on economic growth*. Nova Science Publishers Inc., New York, pp 158–186
76. Corrado G, Corrado L (2015) The geography of financial inclusion across Europe during the global crisis. *J Econ Geo* 15:1055–1083

77. Rusu V (2017). Financial inclusion and stability: linkages among financial development and economic growth. *J Fin Innov* https://doi.org/https://doi.org/10.15194/jofi_2017.v0.i0.57
78. Raddatz C (2006) Liquidity needs and vulnerability to financial under- development. *J Finan Econ* 80:677–722
79. Beck T, Lundberg M, Majnoni G (2006) Financial intermediary development and growth volatility: do intermediaries dampen or magnify shocks? *J Int. Money Finan* 25:1146–1167
80. Levine R (1999) Law, finance, and economic growth. *J Fin Intermediation* 8:36–67
81. Ayyagari M, Demirguc-Kunt A, Maksimovic V (2011) Small vs. young firms across the world : contribution to employment, job creation, and growth Policy Research Working Paper Series 5631, The World Bank.