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Financial Inclusion Development in Arab Countries during the Period (2011-2017)

تطور الشمول المالي في الدول العربية خلال الفترة (2011-2011)

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Abstract:

The current study examined the development of financial inclusion indicators in Arab countries from 2011 to 2017 using data and statistics from Arab and international financial and monetary organizations. The study found that the Arab region has the lowest levels of financial inclusion in the world according to many indicators, such as the use of accounts in banking institutions and borrowing and savings indicators. There is also a disparity among Arab countries in financial inclusion indicators. While the GCC countries have made relative progress in financial inclusion indicators, these indicators decreased in the most densely populated countries, such as Egypt, and in the lowest incomes, such as Yemen.

Key words: Financial Inclusion, financial inclusion indicators, digital financial inclusion

JEL classificationcodes: G32, G38.

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Introduction

Financial inclusion has become the focus of many governments and financial regulators in most countries and international development agencies; it became critical in achieving the 17 sustainable goals. Policymakers, governments, international development institutions, and private sector institutions have evolved interest in financial inclusion, economic growth, and financial stability due to reduces poverty rates and increased women's empowerment; through promoting and facilitating all groups' access to financial services supported by technological development, financial innovations, funds, electronic payments, and mobile financial services have emerged. The proportion of adults holding bank accounts was 69%, and the number of borrowers from commercial banks (for every 100 thousand adults) was approximately 164 thousand, according to the International Bank's data for 2018. The number of ATMs (for every 100 thousand adults) is estimated at 49 thousand machines, improving the level of global financial inclusion and, in turn, boosting the desired economic growth.

The significant development of Internet communications and modern technologies in the fourth industrial revolution, such as artificial intelligence, big data, and cloud computing, has enabled financial institutions to expand access to financial services to financially underrepresented groups, both individuals and SMEs, thereby reducing the cost of providing financial services and improving their efficiency levels.

Regarding the Arab States, their economies faced many challenges affecting their growth, which required infrastructure development and resource mobilization to increase investment rates. Underlines the importance of financial inclusion in the creation of new jobs, thereby achieving sustainable economic and social growth, By reducing unemployment and poverty, improving income distribution, and raising the standard of living, since access to finance and financial services for different segments of society and business sectors is instrumental in addressing unemployment problems and achieving more inclusive economic growth. In the same context, The Arab States ranked in 2020 among the world's top 10 regions regarding youth unemployment. Enhancing financial inclusion is undoubtedly positively reflected in deepening the financial and

banking sector, enhancing its stability and integrity, and strengthening its role in the service of growth.

1- Theoretical Framework

1-1- The Definition of Financial Inclusion

Financial inclusion is widely defined as admission to financial services, and global interest in this economic term has recently increased and has become a significant issue for policymakers worldwide. It is an important policy objective directly related to central banks' main objectives and activities. Thus, financial inclusion is seen from different angles, the most important of which is the population's access to financial services, the degree of use of these services, their quality, and cost.

The early 2000s were marked by research studies' interest in the concept of financial inclusion and the characteristics of financial excluders. Conversely, in the late 2000s, studies tended to focus on the issue of financial inclusion measures and the relationship between financial inclusion and economic development (Kim et al., 2018).

The World Bank represents financial inclusion as the proportion of adults who use financial services. Non-use does not mean inaccessibility, as some people may have access to financial services at affordable prices. However, they choose not to use them for religious or other reasons, while others' access may be restricted by the high costs of such services or regulatory restrictions. Financial inclusion is therefore linked to barriers that make access to financial services and transaction completion difficult (World Bank, 2014).

Moreover, financial inclusion was defined by the G-20 asthe strategy of providing access to financial services and credit when needed by low-income groups at a low cost. Through this definition, it is clear that financial inclusion not only represents the provision of financial services to all but also express the provision of financial services and products at a comprehensively affordable cost, including low-population areas and low-income groups. s equal access to essential financial services for a better life, better living, and better income. It is thus one of the overall growth aspects (G20 2020 Financial Inclusion Action Plan | GPFI, 2020).

Also, financial inclusion is a strategy that provides free access to and use of adequate financial services for all individuals and businesses at reasonable cost and participation in society for disadvantaged groups based on equal rights and duties (*Irving Fisher Committee on Central Bank Statistics IFC Bulletin*, 2018).

In another definition, financial inclusion reflects the percentage of individuals and companies using financial services. Residents use banking services more widely as they are more accessible in terms of ATMs or bank branches. The lower the cost, the higher the quality of services. Thus, use measures will likely reflect accessibility, cost, and quality, and vice versa. To the extent that more detailed data are available on specific aspects of financial inclusion within and between countries, the definition could also be expanded to include access, quality, and cost dimensions(W. Bank & Group, 2013).

as well, Financial inclusion is defined as the sustainable supply of financial services at affordable prices for all social groups and must be achievable and secure based on a sophisticated and integrated system that allows for the accessible dispatch, receipt, deposit, and withdrawal of funds without any waste of effort and time, as well as risk reduction (P. K. Ozili, 2021).

It is also defined as a comprehensive policy to provide financial services to residents, including excluded and non-bank groups (Mpofu & Mhlanga, 2022).

Concerning financial inclusion factors are the level of education, income, gender, and age. In addition, financial inclusion in developing countries depends on income and factors such as social characteristics and family size(Léon & Zins, 2020).

1-2- The Definition of Digital Financial Inclusion

The growth of the digital economy must be viewed in the context of the fourth industrial revolution (4IR). Furthermore, digitization has increased the provision of financial services in most countries. In addition, digitization and big data analytics have led to the transformation of digital services, financial products, and business models in the financial sector (Mpofu & Mhlanga, 2022). Consequently, new terms have emerged in the field of finance such as digital finance, internet finance, financial technology "Fintech".

Digital financial inclusion is the fourth phase of the financial revolution after the development of microcredit, microfinance, and financial inclusion. Compared with financial inclusion, digital financial inclusion attaches greater importance to technology for expanding access to formal financial services (Tay et al., 2022).

According to the World Bank, Digital financial inclusion affects deploying cost-saving digital means to reach the financially excluded. Currently, underserved residents with a capacity for traditional financial services conformed to their requirements that are produced responsibly at a reasonable cost to clients and sustainable to service providers (*Digital Financial Inclusion*, n.d.).

Further, Digital financial inclusion offers new market participants and assigns roles and risks (new and well-known) in different ways compared to traditional approaches to delivering fragmented financial services. Financial inclusion includes three main components: Digital transactional platform, Retail agents, and devices (Kate & Lyman, 2015).

Moreover, Digital financial inclusion concerns improved access to financial services. Adequate access to financial products and services for small and microenterprises is the primary engine of financial integration (Yang & Zhang, 2020).

1-3- The Importance of digital Financial Inclusion

Digital Financial inclusion appears to be a prerequisite for development because it will have practical implications for using digital financial services such as mobile money services, payment cards, and other Fintech applications. In particular, financial inclusion, linked to mobile money service systems, appears capable of reducing extreme poverty, particularly in low-income countries, improving gender equality, and helping families manage financial risks more effectively. It may also decrease the costs associated with a cash receipt, allow the accumulation of savings, and more efficient management of the family's budget. Finally, it may allow even reducing corruption and increase transparency, thanks to the implementation of traceable systems, especially regarding government payments (Ferrata, 2019). Hence, Digital financial inclusion provides a broad content of advantages as follows: (P. Ozili, 2022)

- Supply access to all formal financial services payments, transfers, savings, credit, insurance, and securities.
- Promote digital payments, transfers, savings, credit, insurance, and investments.
- Promote government-to-government digital payments, such as conditional and unconditional cash transfers.
- Low digital transaction costs for customers and providers of digital financial services.
- Allow financial services designed to meet poor customers' needs and financial conditions, For example, allow the digital transfer of small amounts of money and save small amounts which will be difficult using cash.
- Decrease the risk of losing, stealing, and other financial criminalities resulting from cash transactions.
- It enables economic empowerment by promoting asset ownership and capital increase.
- Advancing women's economic participation.
- Encourages economic growth and stability through increased overall spending and collection of tax revenues.

2- Measuring Financial Inclusion

Researchers have no comprehensive agreement on the indicators used to measure financial inclusion. Some have tried to design a method to measure financial inclusion using three indicators associated with loans, deposits, and payment services. Other studies focused on other indicators to measure financial inclusion, such as the proportion of adults and families with bank accounts and access to financial services (Nguyen, 2020). Other studies indicate that the level of savings and risk management is one of the world's most important indicators for measuring financial inclusion, a set of individual indicators developed through random sample population survey data in more than 148 economies.

Overall, financial inclusion is measured by three dimensions: (1) access to financial services; (2) The use of financial services; (3) Quality of products and delivery of services. They are the G-20's

financial integration indicators, providing more depth in access and utilization aspects, including those related to the emerging space for mobile financial services. Both supply-side and demand-side data are included to shape an integrated vision(*G20 Financial Inclusion Indicators | Home | The World Bank*, n.d.).

The World Bank's World Findex Survey, established in 2011, is the benchmark applied in all regions and has identified bank accounts as a key indicator of financial integration. The core set of indicators is based on six main principles: (1) Usefulness and relevance, (2) Pragmatism, (3) Consistency, (4) Flexibility, (5) Balance, (6) Aspiration (AFI, 2017).

While The Maine indicators of financial inclusion can be mentioned as follows:(AFI, 2017)

2-1- Access to financial and banking services

Access guides the ability to use financial services and products available from banking institutions. Therefore, understanding access determinants and identifying possible obstacles to opening and using a bank account, such as commission or geographical proximity to bank service points, including branches and ATMs, is required. Accessibility statistics can usually be obtained through information provided by financial institution.

The components of access are:(AFI, 2017)

- Number of access points per 10,000 adults nationwide.
- Percentage of areas with at least one access point.
- A number of e-payment service providers' agents per 100 thousand adults.
- A number of outlets or mobile agents for every 100,000 adults.
- A number of points of service or sale (POS) for 100,000 adults.
- A number of automatic withdrawal cards per 1000 adults.
- A Number of ATMs per 1000 km2.

These data represent the information provided by financial institutions on the supply side through population statistics.

2-2- Use of financial and banking services

Use is or exploits the financial service provided by financial institutions because customers may have access but decide not to use the service. The indicators for usage are: (Cámara & Tuesta, 2014)

- Percentage of adults with at least one kind of permanent deposit account in financial institutions
- Percentage of adults with at least one kind of permanent credit service.
- A number of deposit accounts per 1000 adults.
- Percentage of loans per 1000 adults.
- Percentage of loans due to 1,000adults.
- The number of insurance policy holders per 1000 adults disaggregated by life and non-life insurance.
- Number of SMEs with deposit accounts.

2-3- Quality of financial services

Quality refers to Design products to meet customers' needs with the requirement to adequately divide services to be commensurate with all income levels. Quality indicators can be presented as follows:(A. D. Bank, 2019)

- The average monthly cost of obtaining a basic account is based on the official minimum wage.
- Average annual fees for maintaining a basic current account.
- Average cost transferred credit.
- Percentage of customers who reported receiving clear and sufficient information about financial services at the beginning of the financial loan.
- The extent to which there is a law or regulation of standards for complaints and dealings between users and the financial institution.
- Calculate the percentage of adults who know basic financial terms such as rate, risk, inflation, and diversification.

2- Financial inclusion situation in Arab countries

Since 2010, considerable efforts have been made to achieve financial inclusion of some 1.7 billion people deprived of financial services, as well as the pledge of more than 55 countries to universalize financial inclusion and cover all population areas; on the other hand, more than 60 countries have launched financial inclusion strategies.

For the Arab States, despite the improvement in financial inclusion indicators, these indicators remain below the required level compared with the world's countries. For example, 37 percent of adult citizens held official financial accounts compared to 59 percent of the global average for 2017.

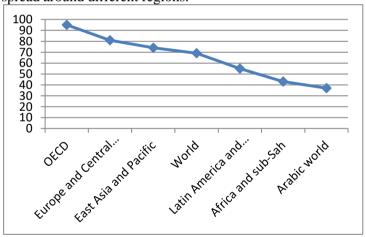
This figure reached 30 percent in 2014, compared with 62 percent for the global average, which confirms relative progress in reflecting financial inclusion, albeit below the required level, and prompts redoubling efforts to lay solid foundations for financial inclusion in Arab countries.

Developments in financial inclusion indicators in the Arab States can be described as follows:

2-1- Ownership of a bank account in a banking institution

The ratio of adult inhabitants with a bank account in the Arab countries is weak compared to the rest of the world. Figure 01 shows the ownership ratios of bank accounts of persons over 15 years of age spread around different regions.

Figure 01: the ownership ratios of bank accounts of persons over 15 years of age spread around different regions.



Source: Bernih, Y., Abid, R., &Atia, H. (2019). *Financial Inclusion in Arab Countries—Efforts, Policies and Experiences* (No. 109/2019; pp. 2–20). https://www.amf.org.ae/sites/default/files/publications/2022-01/financial-stability-report-in-the-arab-countries-2019.pdf

The portion of the population with a bank account is the lowest in the Arab world at 37%. This figure was 95% in OECD countries, while 81% in Europe and Central Asia. 74% in East Asia and the

Pacific, 69% in the rest of the world, 55% in Latin America and the Caribbean, and43% in Africa and sub-Saharan Africa.

In 2017, the United Arab Emirates ranked first in the proportion of the adult population with 84 percent bank accounts, followed by Bahrain with 83 percent, then Kuwait with 80 percent, Saudi Arabia with 72 percent, 43% in Algeria, 30% in Tunisia, 25% in Jordan, and 15% in Egypt.

As for the gender funding gap, the Arab countries reached 20% in 2017, while the world reached only 7%. This is explained by the fact that the proportion of adult males holding accounts with formal financial institutions is higher than the proportion of females, with the proportion of males and females 48 percent and 26 percent, respectively.

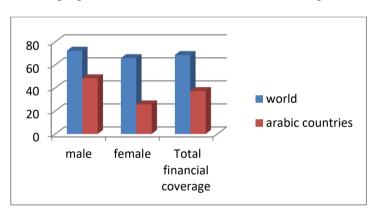


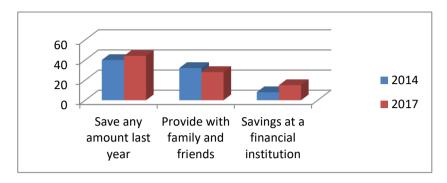
Figure 02: the proportion of adult males and female holding accounts

Source: by researchers based on:Eltaib, Hanan. (2020). *Financial inclusion* (Vol. 01).AMF. https://www.amf.org.ae/sites/default/files/publications/2021-12/financial-inclusion.pdf

2-2- Savings in financial institutions

On the savings side, the proportion of citizens who put their savings into official financial institutions is still below the hoped level. However, it almost doubled from 8% in 2014 to 15% in 2017, with the world average being 27% in 2017.

Figure 03: Percentage of Saver Citizens in Arab Countries in 2014 and 2017



Source: by researchers

Table 01 shows the proportions of savers in Arab countries during 2011, 2014 and 2017.

Table 01: Percentage of savers in Arab countries in 2011, 2014, 2017

year	2011	2014	2017
Countrie			
United ArabEmirates	19	32	29
Bahrain	17	34	31
Algeria	4	13	12
Egypt	2	4	7
Jordan	8	3	10
Kuwait	40	25	26
Lebanon	16	17	21
Mauritania	6	11	8
SaudiArabia	17	15	14
Tunisia	10	/	17
Morocco	/	/	6

Source: Bernih, Y., Abid, R., &Atia, H. (2019). *Financial Inclusion in Arab Countries—Efforts, Policies and Experiences* (No. 109/2019; pp. 2–20). https://www.amf.org.ae/sites/default/files/publications/2022-01/financial-stability-report-in-the-arab-countries-2019.pdf

The United Arab Emirates ranks first regarding the percentage of the saver population in the Arab countries. This figure was 29% in 2017, followed by Bahrain at 31%, Kuwait at 26%, Lebanon at 21%,

Tunisia at 18%, Algeria at 12%, and Saudi Arabia at 14%. Mauritania and Morocco last rank at 8 and 6, respectively.

2-3- Borrowing Behavior

Regarding using credit cards over the age of 15, Arab States' ratios remain unambitious and require further efforts to lift them. It rose slightly in 2017 and stood at 14%, compared with 13% in 2014; globally, it stood at 23% at the end of 2017, while 22% at the end of 2014.

The proportion of adults using mobile and e-network access to financial and banking services in Arab countries was about 5.7%, which is considered weak compared to the global average of 24.9%. Table 02 shows the proportion of borrowers from financial institutions or who used credit cards over 15 years of age during 2014, 2017.

Table 02: the proportion of borrowers or who used credit cards during 2014, 2017

year	2014	2017
Countrie		
United ArabEmirates	39	46
Bahrain	39	36
Algeria	6	5
Egypt	7	78
Jordan	3	10
Kuwait	25	26
Lebanon	17	21
Mauritania	11	8
SaudiArabia	15	14
Tunisia	/	17
Morocco	/	6

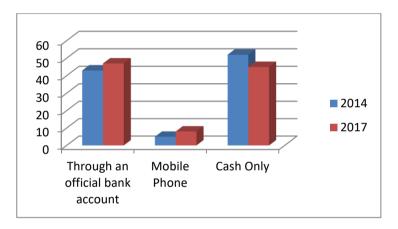
Source: Bernih, Y., Abid, R., &Atia, H. (2019). *Financial Inclusion in Arab Countries—Efforts, Policies and Experiences* (No. 109/2019; pp. 2–20). https://www.amf.org.ae/sites/default/files/publications/2022-01/financial-stability-report-in-the-arab-countries-2019.pdf

In 2017, the United Arab Emirates maintained first place in the percentage of credit card borrowers at 46%. Bahrain was second at 36%, while Algeria was third and a low at 5%.

2-4- Channels used for transfers and payment of bills

Concerning how remittances related to receipt of wages, receipt of government transfers, payment of invoices, and sending or receiving local remittances, positive changes have been observed in this area, as the proportion of people using mobile payment channels for all such transfers improved in 2017 compared to 2014, as did the use of official bank accounts. In contrast, cash transfers declined. Figure 04 shows the proportion of each channel of remittances and payment of invoices to Arab countries.

Figure 04:Channels used for transfers and payment of bills in Arab countries during 2014 and 2017



Source :Bernih, Y., Abid, R., &Atia, H. (2019). *Financial Inclusion in Arab Countries—Efforts, Policies and Experiences* (No. 109/2019; pp. 2–20). https://www.amf.org.ae/sites/default/files/publications/2022-01/financial-stability-report-in-the-arab-countries-2019.pdf

47% of financial transactions in the Arab world were conducted through official bank accounts in 2017, and 43% in 2014. Mobile transactions amounted to 8% in 2017 and 5% in 2014. Cash transactions remain the largest, estimated at 45% in 2017 and 52% in 2014.

The Arab States, unlike the National Strategic Plans, adopt sectoral and institutional plans that include visions specific to particular economic sectors or entities operating in the State. For example, at the financial level, digital transformation priorities are to keep abreast of developments in modern financial technologies, enhance cybersecurity with a view to strategic planning to enhance financial inclusion, provide the necessary protection for users of banking technologies, and maintain the integrity and efficiency of the national payments system.

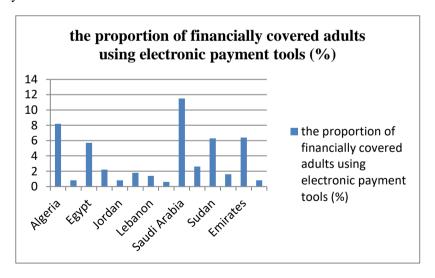
3- Digital financial inclusion

Several Arab countries have pioneering experiences in digital transformation, employment, and employment to promote financial inclusion and sustainable development.

3-1-Use of electronic payment tools in daily transactions

Arab countries are trying to expand electronic and digital financial transactions by adopting policies to increase the proportion of financially covered adults using electronic payment tools in their financial transactions as illustrated in figure 5.

Figure 05: The Proportion of Financially Covered Adults Using Electronic Payment Tools



Source: by researchers based on:World Bank (2017) Financial Inclusion Database

Most Arab countries are willing to support digital financial inclusion in the context of the strategies adopted for digital transformation. Indicators of the success of financial technologies in the field of electronic retail payment in Algeria are the high number of bank cards and online payment mechanisms, as well as the number of automated distributors and electronic payment stations.

In Saudi Arabia, the State has recently sought to facilitate the entry of innovative institutions such as financial technology companies in the field of electronic retail payment to expand appropriate, cost-effective delivery channels to increase and quality the cost of financial services and contribute to enhancing levels of financial inclusion.

In Lebanon, electronic payment companies help reduce the cost of financial transactions compared to cash payments. According to World Bank data, about 47% of Lebanese have an individual or joint account in a financial institution and are dealt with online.

In Mauritania, financial technology companies are working to increase the efficiency of financial transactions by improving the efficiency of transactions and bringing them closer to users. They are also working to significantly support levels of financial inclusion, in addition to contributing to the digital transformation of financial services (AMF, 2020).

3-2- Limits to Digital Financial Inclusion in Arab Countries

Digital transformation allows financial services to increase their reach by leveraging digital channels and reshaping product and process value chains to deliver new products and more efficient customer service. However, despite the Arab States' progress in financial inclusion and the exploitation of technological developments in improving financial transactions, Arab markets are emerging markets, and their digital financial transformation continues to face several challenges, as described below: (Saal et al., 2017)

- -The lower level of active users (prevailing inactive accounts) due to more heightened service costs.
- Insufficient knowledge of services due to unsatisfactory financial education.
- Payment services are not digitized to the public, so only a small number of NGOs (non-governmental organizations) and private companies offer some mobile payment services.
- Low involvement of banks and non-banking institutions in developing more inclusive services as well as weak legislative structure and governing policies.
- Uncertainties in the execution of the National Strategy for Financial inclusion.
- Weak digital infrastructure in Arab countries and the lack of superior Internet speed (broadband), as well as the lack of progress in cloud computing and digital content.
- Weak technological creativity and entrepreneurship, as well as lack of awareness and community development.
- There is no robust system available to protect customers and examine complaints, as well as cybersecurity.

Conclusion

In the last decade, financial inclusion has become a significant spectacle for policymakers to develop an effective policy for sustainable growth. Theoretically, financial inclusion is a crucial pillar of economic growth, as Schumpeter argued that finance promotes growth. In this context, the financial sector facilitates access to capital formation and encourages innovation, efficiency, and investment through its services. Thus, increasing output and raising the economic growth rate is essential.

The current study reviewed financial inclusion developments in the Arab States from 2011-2017 by analyzing data and statistics from Arab and international organizations' databases related to Arab financial and monetary affairs, such as the Arab Monetary Fund, the World Bank, and the International Monetary Fund.

The study found a set of findings as follows:

- Expanding financial inclusion has numerous benefits for the economy, society, and financial system. Therefore, it is

crucial for national and regional efforts to be intensified to implement this strategy.

- Financial inclusion depends on several critical factors, including developing financial infrastructure, improving financial awareness, and expanding access to financial services.
- Financial inclusion rates in the Arab region remain low compared to countries worldwide, and low-income countries, except the Gulf Cooperation Council, have achieved acceptable financial inclusion rates.
- Levels of financial awareness in the Arab region remain low, so concerted efforts are needed to spread financial awareness in the region.
- The Arab region faces various obstacles in achieving financial inclusion. Identifying and overcoming these obstacles to progress toward financial inclusion is essential.

Recommendations

- -Reinforcing joint Arab cooperation to develop a comprehensive Arab strategy to develop financial inclusion and drive economic development.
- -Include financial inclusion as a new strategic objective for Governments and regulators, with the need to integrate financial inclusion, financial stability, and consumer financial protection to achieve the Integrated Framework for Financial Inclusion and Stability;
- Interest in electronic systems and maximizing the benefit of the significant development of innovative financial services and products and the development of the infrastructure of the Arab financial system.
- Creating an environment conducive to young people's and women's access to finance and financial services and expanding financial services to rural areas in the Arab States;

Bibliography List

- afi. (2017). *Measuring Financial Inclusion Core Set of Financial Inclusion Indicators* (pp. 1–8). https://www.afi-global.org/publications/measuring-financial-inclusion-core-set-of-financial-inclusion-indicators/
- AMF. (2020). *Digital Financial Inclusion* (No. 17). https://www.amf.org.ae/ar/publications/mwjz-alsyasat/alshmwl-almaly-alrqmy
- Bank, A. D. (2019, June 17). Financial Inclusion in Africa [Text]. African Development Bank Building Today, a Better Africa Tomorrow; African Development Bank Group. https://www.afdb.org/en/documents/document/financial-inclusion-in-africa-34666
- -Bank, W., & Group, W. B. (2013). Global Financial Development Report 2014: Financial Inclusion. World Bank Publications.
- Bernih, Y., Abid, R., & Atia, H. (2019). *Financial Inclusion in Arab Countries—Efforts, Policies and Experiences* (No. 109/2019; pp. 2–20). https://www.amf.org.ae/sites/default/files/publications/2022-01/financial-stability-report-in-the-arab-countries-2019.pdf
- Cámara, N., & Tuesta, D. (2014). *Measuring Financial Inclusion: A Muldimensional Index* (SSRN Scholarly Paper No. 2634616). https://doi.org/10.2139/ssrn.2634616
- Digital Financial Inclusion. (n.d.). [Text/HTML]. World Bank. Retrieved August 28, 2022, from https://www.worldbank.org/en/topic/financialinclusion/publication/digital-financial-inclusion
- Ferrata, L. (2019). Digital financial inclusion an engine for "leaving no one behind." *Public Sector Economics*, 43.(4), 445–458. https://doi.org/10.3326/pse.43.4.6
- -G20 2020 Financial Inclusion Action Plan / GPFI. (n.d.). Retrieved August 22, 2022, from https://www.gpfi.org/publications/g20-2020-financial-inclusion-action-plan
- G20 Financial Inclusion Indicators | Home | The World Bank. (n.d.). Retrieved July 27, 2022, from https://datatopics.worldbank.org/g20fidata/
- -Kate, L., & Lyman, T. (2015). *Digital Financial Inclusion*. https://www.cgap.org/research/publication/digital-financial-inclusion
- Kim, D.-W., Yu, J.-S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. *Research in International Business and Finance*, 43, 1–14. https://doi.org/10.1016/j.ribaf.2017.07.178

Financial Inclusion Development in Arab Countries during the Period (2011-2017)

- Léon, F., & Zins, A. (2020). Regional foreign banks and financial inclusion: Evidence from Africa. *Economic Modelling*, 84(C), 102–116.
- Mpofu, F. Y., & Mhlanga, D. (2022). Digital Financial Inclusion, Digital Financial Services Tax and Financial Inclusion in the Fourth Industrial Revolution Era in Africa. *Economies*, 10(8), 184. https://doi.org/10.3390/economies10080184
- Nguyen, T. T. H. (2020). Measuring financial inclusion: A composite FI index for the developing countries. *Journal of Economics and Development*, 23(1), 77–99. https://doi.org/10.1108/JED-03-2020-0027
- Ozili, P. (2022). Digital Financial Inclusion.
- Ozili, P. K. (2021). Financial inclusion research around the world: A review. *Forum for Social Economics*, 50(4), 457–479.
- Saal, M., Starnes, S., & Rehermann, T. (2017). *Digital Financial Services: Challenges and Opportunities for Emerging Market Banks* [Brief]. World Bank. https://doi.org/10.1596/30368
- Tay, L.-Y., Tai, H.-T., & Tan, G.-S. (2022). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, 8(6), e09766. https://doi.org/10.1016/j.heliyon.2022.e09766
- The role of data in supporting financial iclusion policy.pdf—Irving Fisher Committee on Central Bank Statistics IFC Bulletin No 47 The role of data / Course Hero. (n.d.). Retrieved August 24, 2022, from https://www.coursehero.com/file/44128740/The-role-of-data-in-supporting-financial-iclusion-policypdf/
- World Bank. (2014). *Global Financial Development Report 2014: Financial Inclusion*. World Bank. https://doi.org/10.1596/978-0-8213-9985-9
- Yang, L., & Zhang, Y. (2020). Digital Financial Inclusion and Sustainable Growth of Small and Micro Enterprises—Evidence Based on China's New Third Board Market Listed Companies. *Sustainability*, *12*(9), 3733. https://doi.org/10.3390/su12093733