

New banks and their role in promoting digital financial inclusion

- Saudi Arabia's model -

البنوك الجديدة ودورها في تعزيز الشمول المالي الرقمي – المملكة العربية السعودية نموذجا –

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Received: 17/05/2024

Accepted: 25/06/2024

Published: 30/09/2024

Abstract:

The study aims to present the experience of Saudi digital banks and to clarify their importance in promoting digital financial inclusion through their activity based on the settlement of financial transactions using digital payments. Through the study, we have found that digital banks in Saudi Arabia are modern, and that their development in sectors outside the banking sector has enabled them to attract a large group of clients, thus encouraging their inclusion in the banking services sector.

Keywords: Digital financial inclusion; Digital banks; Saudi Arabia.

JEL Classification Codes: G21, O1, O5

ملخص:

تهدف الدراسة الى عرض تجربة البنوك الرقمية في السعودية وتوضيح اهميتها في تعزيز الشمول المالي الرقمي من خلال نشاطها القائم على تسوية المعاملات المالية باستخدام المدفوعات الرقمية .
توصلنا من خلال الدراسة الى حداثة البنوك الرقمية في السعودية كما ان نشأتها في قطاعات خارج القطاع المصرفي مكنها من جذب فئة كبيرة من المتعاملين مما شجع على ضمها الى قطاع الخدمات البنكية.
كلمات مفتاحية: شمول مالي رقمي، بنوك رقمية، المملكة العربية السعودية.

تصنيفات JEL : G21 ، O1 ، O5

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1. INTRODUCTION

Digital technology offers many solutions that expand access to financial services and enable a large proportion of people, including those in rural and remote areas, to access these services at low cost and for a short period of time compared to traditional financial solutions, thus enabling them to settle their financial transactions.

Given the importance of digital solutions, states are striving to provide the infrastructure that will enable them to enhance their digital transformation and integrate digital technology with its various technologies and applications in various sectors, particularly the banking sector, which is one of the main pillars of economic growth, since strong and well-financed banking entities provide support for development projects, and provide financing for investment institutions. This supports economic development in both countries.

Digital finance refers to financial services provided through mobile phones or cards associated with digital payment systems, various digital devices or the internet. As a result of rapid technological advances, the world is now aware of a very high prevalence of smartphones and social media, which is a good opportunity for countries around the world to enhance their economic growth and financial stability by supporting financial inclusion based on mobile payment methods. The latter enables financially excluded groups to access financial products and services of all kinds in a reliable and sustainable manner. Mobile payment systems are among the most important means of sustainable payment, allowing individuals to meet their needs and participate in financial sector services that improve their living standards. (Abdalwali Lutf, 2021)

Saudi Arabia is one of the leading financial technology countries. The financial technology market is estimated at US\$ 43.78 million in 2024)Intelligence(, and the behavior of clients has changed significantly as a result of health measures imposed by the covid-19 pandemic, which has led to the growth of payment services without contact and the proliferation of digital banks in Saudi Arabia that provide digital financial services based on smartphones. The study was based on the following main forms:

How do digital banks contribute to enhancing digital financial inclusion in Saudi Arabia?

1.1 Study importance:

Digital financial inclusion is one of the important topics that is the focus of efforts to develop it at the global level and in the Kingdom of Saudi Arabia, which seeks to activate digital banks because of their ability to provide digital financial

services at a low cost and in a short time. The importance of the study is evident from the fact that they deal with digital banks, which have seen a surge in the Saudi financial and banking sector, as well as their support by the official authorities.

1.2 Study objectives

The study aims to achieve the following objectives:

- ✓ Identification of digital banks and their services.
- ✓ Highlighting digital banks in the Kingdom of Saudi Arabia.
- ✓ Aims to highlight Saudi Arabia's efforts to enhance the experience of digital banks.
- ✓ Presentation of the reality of digital payments in Saudi Arabia.
- ✓ To highlight Saudi experience in the activation of digital banks and how important they are in promoting digital financial inclusion in order to make them operational in Algeria and to try to make use of them.

1.3 Study Approach

In the study, we relied on the descriptive and analytical approach given its relevance to economic studies as well as the case study methodology by presenting the experience of Saudi Arabia in the field of digital banks.

2. Literature:

2.1 financial inclusion

The Global Partnership for Financial Inclusion (GPFI) and the Advisory Group on Assistance to the Poor (CGAP) have defined financial inclusion as a situation in which all workers have effective access to financial services such as finance, savings payment and insurance provided by formal institutions. (CGAP&WB, 2010)

Having a permanent account is a first step towards full financial integration, as it will enable its owner to pay and receive money, and it is also the starting point for accessing other financial services such as credit or insurance, establishing a company, investing, managing risks, facing financial shocks and thus improving the overall quality of life of individuals. (Bank, 2022)

Financial inclusion is defined as the access of individuals and companies to useful financial products and services: payments, savings, credit facilities, loans, and insurance services at appropriate prices, where these services are provided in a sustainable manner financial inclusion is an enabling factor for seven sustainable development goals, the most important of which is the eradication of poverty and the promotion of the well-being of societies. (Bank, 2022)

The objective of financial inclusion is to make formal financial services accessible to all age groups ((AfDB), 2013, p. 25). The literature has shown important factors that promote financial inclusion. The most important of these are financial innovation , technology, and digital finance. (Kapadia, 2019) (Ozili, 2018) (Thorsten Beck, 2014).

Financial innovation is defined as the process of creating new financial services and advanced technology that improves access to and provision of financial services, As an example, mobile banking and smartphone payments(paie^ment mobile). (NAJAB, 2022)

2.3 Digital financial inclusion

Digital financial inclusion includes the inclusion of non-banking adults in the formal financial sector by enabling them to provide financial services provided using digital devices such as mobile phones or various digital devices. Digital financial inclusion targets financially excluded groups by enabling them to access digital financial services using digital devices. (Ozili, 2018, p. 331) It allows digitally excluded people to access official financial services at a low cost (K.Ozili, 2021, p. 2).It also represents the sustainable provision of affordable digital financial services that bring the poor into the formal financial sector of the economy. (Ozili p. K., 2022, p. 3)

Digital financial inclusion is the fourth stage of the financial revolution after developing microcredit, microfinance, and financial inclusion (Xue Wang, 2020, p. 3), Its aim is to eliminate the constraints that obscure the use of the financial services provided by the private sector and financial institutions. Rapid technological development has led to an increase in the prevalence of cellular phones and social media in the current international, interdependent economy. Thus, the adoption of financial inclusion through mobile payment systems will promote economic development and financial stability. (Abdalwali Lutf, 2021) (Duc Hong Vo, 2020) (Lee-Ying Tay, 2022)

Digital financial inclusion is based on three basic principles: (CGAP, 2015)

- **A digital Transaction Platform**

It's a platform that allows the client to make his various transactions, such as payment, receipt, transfers and storage of securities over the Internet, using a device that transmits and receives data and information through digital communication channels.

- **Retail agents**

These agents, equipped with a digital device connected to a communication

infrastructure that allows them to transmit and receive transaction information, enable clients to convert cash into electronically stored securities and convert those stored values into cash.

- **Device**

Digital devices are used, such as a mobile phone or a payment card, which is used with an electronic device(exe:TPV)

2.4 digital banks

2.4.1 Definition

The establishment of digital banks was in London; as for the digital branches of banks, they were licensed to be established by the central banks of multiple countries, and most banks have applied the digital method to inform their customers about their account balances through secret numbers that enable verification of their identities. (البركة، 2019، صفحة 227)

Digital banks are banks that provide banking services through digital platforms and channels using modern technologies, and they also enable their clients to do their transactions through smartphone communication, which distinguishes them from electronic banks, which provide their services through the Internet and the computer. (المصرفية، 2022)

Egyptian law has defined them as banks that provide banking services through digital channels or platforms using modern technology, Standards and requirements for electronic applications that allow access to customer accounts at banks or payment service providers are developed and transactions are executed by the board of directors, with the latter being committed to providing access through electronic applications that meet standards and requirements. The licensees and foreign bank representative offices registered with the Central Bank are required to keep electronic copies of records, contracts, correspondence, commercial papers, bank transaction documents and payment services for the period prescribed by law for the retention of their assets. (الرسمية، 2020)

The commercial model of digital banks relies on the use of technology and financial data, which reduces the number of branches that are replaced by mobile applications and Internet platforms, thereby reducing human presence. (Gambacorta, 2023)

In the case of digital banks, our digital signature is embodied, which is based on computer programs that create a coded function, in addition to the existence of algorithms that turn the signature into codes that are understood by whoever owns the decryption key (البركة، 2019، صفحة 227)

The business model of digital banking is based on technology, data and no

human interaction: (Gambacorta, 2023)

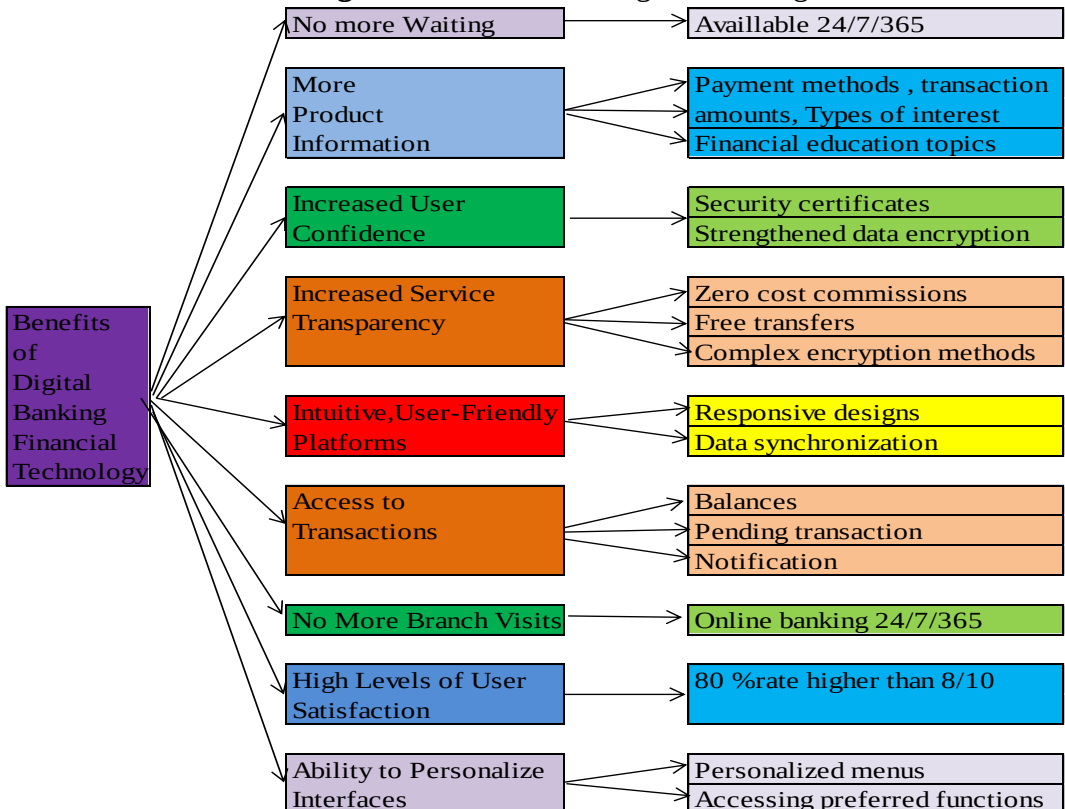
- Artificial Intelligence, machine learning and data.
- Mobile phones and apps.
- No human interaction.
- Enhanced customer experience.
- Online platforms.

2.4.2 Advantages of digital banks

The Corona pandemic has had the obvious effect of accelerating customer adoption of digital services, paving the way for digital banks to acquire more new customers. The cost of operating digital banks is low, which contributes to maximizing the profits of shareholders and reducing the cost of services and products for customers.(2022، المصرفية)

Digital banks offer many advantages for the development of digital banking services, especially after the high number of mobile phone users at present. The activation of digital banks will also provide an opportunity to increase savings by Islamic bank agents. (Sutikno Sutikno, 2022, p. 27)

Fig N°01 : Benefits of Digital Banking



Source: (Ghunaim, 2023)

Mobile payments are a key piece of the digital economy; they dominates e-commerce transactions and have spread to the rest of the consumer economy they allow credit to be extended to individuals and businesses previously excluded from the credit system at low prices, in addition to their ability to gain the confidence of a large group of citizens. (Summary, 2019, p. 5) . Digital banks can serve households and SMEs that otherwise would remain unbanked, which increases the degree of financial inclusion. (Gambacorta, 2023) And in the next form, we can summarize the most important benefits of digital banking services.

2.4.3 Global digital bank reality

FINTECH identified the world's best digital banks, which collectively generated \$16 billion, and it has become a real challenge.

Digital banks have been able to attract a large number of customers who prefer their digital services to traditional ones.

Table N° 01 :TOP DIGITAL BANK

Digital bank	Rank	country	funding	customer
<i>Current</i>	<i>10</i>	<i>US</i>	<i>US\$402.4m</i>	<i>4m</i>
<i>Starling bank</i>	<i>9</i>	<i>UK</i>	<i>US\$710.3m</i>	<i>3m</i>
<i>Atom bank</i>	<i>8</i>	<i>UK</i>	<i>US\$732m</i>	<i>/</i>
<i>Varo bank</i>	<i>7</i>	<i>San Fransisco</i>	<i>US\$992.4m</i>	<i>/</i>
<i>Monzo</i>	<i>6</i>	<i>UK</i>	<i>US\$1.1bn</i>	<i>7.4m</i>
<i>N26</i>	<i>5</i>	<i>German</i>	<i>US\$1.7bn</i>	<i>/</i>
<i>Revolut</i>	<i>4</i>	<i>UK</i>	<i>US\$1.7bn</i>	<i>30m</i>
<i>Chime</i>	<i>3</i>	<i>US</i>	<i>US\$2.3bn</i>	<i>/</i>
<i>Sofi</i>	<i>2</i>	<i>/</i>	<i>US\$3bn</i>	<i>/</i>
<i>Nubank</i>	<i>1</i>	<i>Latam</i>	<i>US\$4.1bn</i>	<i>70m</i>

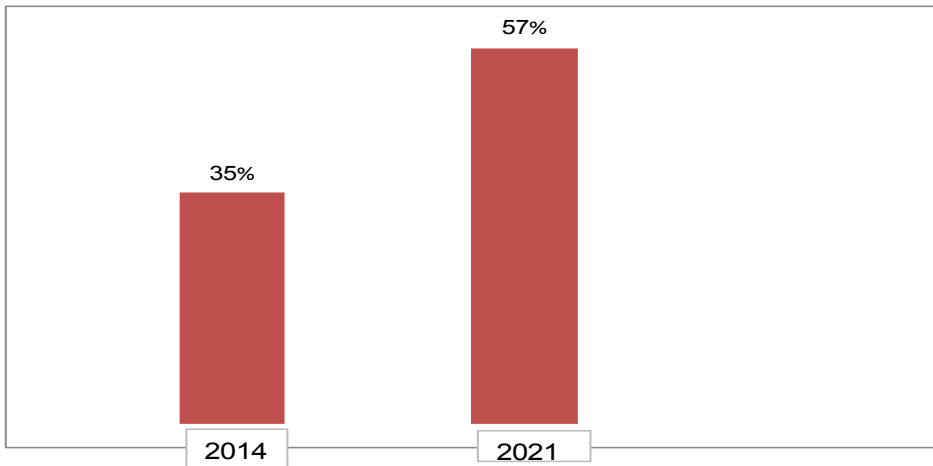
Source: (Thompsett, 2023)

The table displays the world's top 10 digital banks. At Nubank, there are 70 million customers. The value of financing is US\$1.4 billion. Note the ability of digital banks to attract a significant proportion of customers from the table.

During the quarantine period imposed by the Corona pandemic, digital payments proved their ability to settle various financial transactions for families by enabling them to receive government transfers and subsidies. Statistics indicate that out of the 22% of adults receiving government payments in developing countries, 67% of them are obtained through an account. In contrast, hundreds of millions of non-banking adults continue to receive various payments, such as wages, government transfers, and proceeds from the sale of products in cash. ((GPMI), 2023, p. 6)

According to estimates, 76% of adults worldwide and 71% of adults in developing economies have open accounts. These economies have seen a rapid increase in the use of digital payments in recent years, with the number of adults making or receiving digital payments rising from 35% in 2014 to 57% in 2021. (Figure N02)

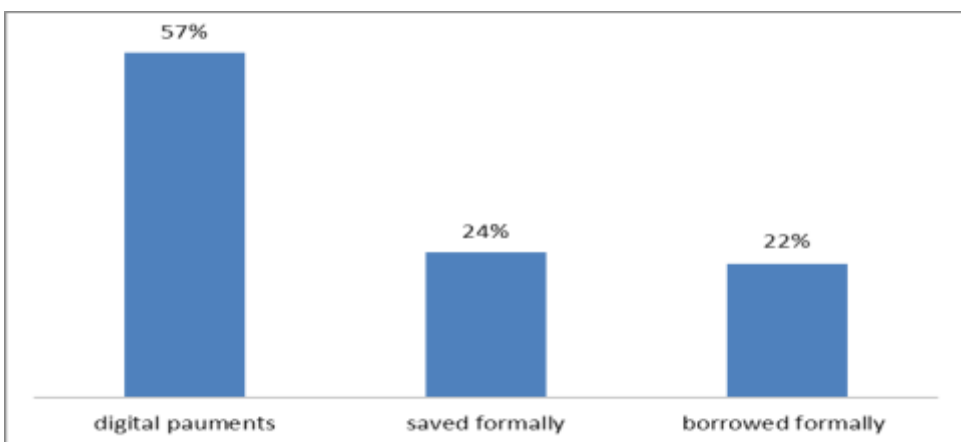
Fig N° 02 : Trends in digital payments, 2014–202



Source: (Tan, 2023)

Digital payments are one of the most important enablers of financial integration in many regions, including Africa and sub-Saharan Africa, and are estimated at 57% compared to the 24% savings ratio, where the borrowing rate is estimated at 22%.

Fig N° 03 : Adults using an account for financial services in developing economies 2021



Source: (Tan, 2023)

3. Digital banks in arabia saudia

3.1 Legal definition

Saudi legislation defines digital banks as banks that conduct banking mainly through digital channels such as the Internet and mobile applications, the conditions for applying for a license to establish a digital bank are as follows: (السعودي، 2020)

- The digital bank is being set up as a stock company.
- The founders of the digital bank should have experience in the financial and technical sector, the capacity and the financial credence.
- Applicants to establish a digital bank have a team of individuals with expertise in their areas to discuss aspects of the submission.

3.2 Saudi digital banks

Saudi Arabia's financial services sector has witnessed many developments, most notably the launch of digital banks in 2021 and 2022. Two local digital banks were licensed: STC Bank and Saudi Digital Bank. In February 2022, a license was granted to a third digital bank, Bank D360: (السعودية، 2022)

- ✓ **STC Bank:** Starch Bank STC, as a payments application (STS Pay) of the leading STC Group in the telecommunications sector", is currently undergoing a development process to convert its activities from an electronic wallet to a digital bank, While working as an electronic portfolio, the bank has attracted over 8 million customers and 120000 Saudi traders. Our clients will now be able to take full advantage of automated digital financial services through the new digital entity.
- ✓ **Saudi Digital Bank:** established through the alliance of a number of companies and investors led by Abdulrahman bin Saad Al Rashid & Sons, a multi-investment company operating in various sectors, mainly contracting and real estate development and has been licensed to provide digital banking services to retail companies and small and medium enterprises in the Kingdom, The Bank relies on cloud services in addition to adopting the latest technologies to design flexible bank products and solutions to meet the different needs of customers and reach a new customer base enabling financial technology companies to enter the local market through a smart electronic platform designed according to international best practices.
- ✓ **Bank D360:** is a bank compliant with Islamic Shari'a, founded through a coalition of investors from enterprises and individuals with the participation of the Public Investment Fund and by leading the financial

knowledge of the financial sector. Its goal is to provide the best financial experience for the unserved category in the Kingdom. We design the customer experience through comprehensive searches involving the target group that needs products and banking services that meet their requirements.

3.3 Procedures for the establishment of a digital bank (2020، السعودي)

The competent authorities have linked the creation of digital banks to a number of procedures, which we'll explain in the next table:

Table N°02: Requirements for the establishment of a digital bank

Procedure	Clarification of procedure
Action plan	The license application includes an action plan that includes information infrastructure and innovative techniques to be presented, financial projections, a target group, and proposed products and services that are compatible with the requirements of the target group.
Capital and liquidity requirements	The license application includes the internal capital and liquidity adequacy assessment plan, which must be consistent with the size, nature and complexity of the operations.
Spatial presence	We need to set up a headquarters to facilitate access to clients and deal with complaints and inquiries.
Governance	Digital banks must follow the Saudi Central Bank's main governance principles for banks operating in Saudi Arabia.
Risk management and oversight	Digital banks must demonstrate the adequacy and relevance of their proposed risk management and control policies and their compatibility with the standards and guidelines followed in the Kingdom.
Commitment to combat money-laundering and the financing of terrorism	Controls against money laundering and the financing of terrorism that are compatible with targeted digital services should be accompanied by compliance with established standards.
The dangers of cybertech and security.	Applicants for authorization to establish a digital bank must take into account information security, the robustness of systems and the fact that they are key components of the bank, and the need for the design and application of the technology and the cyber-security framework to be compatible with all

	requirements issued by the Saudi Central Bank.
Independent evaluation	In order to establish digital banks, applicants are required to appoint a qualified evaluator to carry out an evaluation of specific technical areas such as technology, cyber security, anti-money laundering and terrorist financing arrangements.
Third-party assignment	External support operations for core operations, staff and systems must meet the requirements of official bodies
The exit plan	The applicants must submit an exit plan in case they have difficulties achieving the objectives set out, which must include the steps taken to manage the clients' funds.
Precautionary and supervisory requirements	Digital banks are subject to the same criteria as ordinary banks, and given the nature of the bank's work, its technology should be characterized by easy access to information to enable competent institutions to exercise their supervisory and oversight functions.
Customer protection	The license application must include the necessary arrangements to protect customers and apply to digital banks the same principles as ordinary bank agents.

Source:(2020، السعودي)

3.4 Benefits of digital banks in the Saudi banking sector ،2022، (السعودية، الصفحات 20-21)

The results of the national survey conducted by Fintech Saudi Arabia in 2021 showed that the percentage of electronic bank dealers estimated at 93 versus 5 preferred traditional transactions. Most customers in the Saudi banking sector prefer to conduct their multiple banking transactions via electronic platforms. We will include the benefits of digital banks for the banking sector:

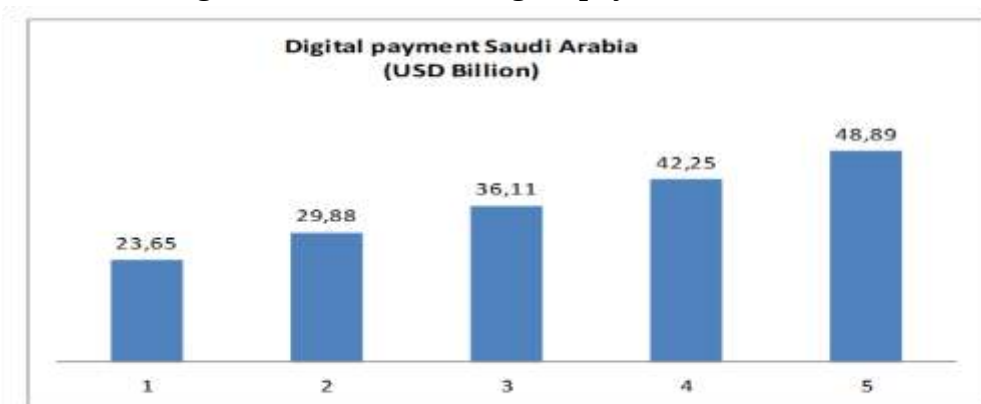
- ✓ **Enhancing customer experience:** Digital banks are established in different sectors outside the banking sector. This enables them to understand consumer behavior in other sectors and thus transfer their experience in the field of customer experience to the banking sector, in addition to enhancing cooperation between banks and other sectors.
- ✓ **Cost structure efficiency:** Electronic banks rely on their electronic presence and do not need many physical devices or manpower, resulting in a decrease in transaction costs. For example, the cost of managing one bank account per customer in traditional banks in China is estimated at US\$3 - 15 per year, while WeBank China conducts the same transaction at US\$0.5.

- ✓ **Offering specialized services:** digital banks provide services to a certain segment of customers to meet specific needs, enabling them to understand their customers' requirements and thus design products that meet their requirements and help them develop a customized marketing strategy that reduces cost and helps acquire new customers.
- ✓ **Data-driven:** digital banks have a high level of flexibility that enables them to develop their operations according to the latest practices in data management, which includes the establishment of an original cloud and an effective data structure and thus becomes the basis of all their transactions. They can also establish a centralized data system to receive information from various sources, enabling them to better understand customers and thus design an efficient customer experience. It can also create an immediate response service for customers, thus enabling them to have a new experience with banking services.
- ✓ **Compatibility with modern technologies:** digital banks can use the latest technologies in all their banking operations, including communication with customers, information verification and service development, where they can use artificial intelligence technologies in data processing and link customer information to outsourcing service such as credit rating agencies.

3.5 Indicators for Saudi Arabia's digital bank

In 2023, there was an increase in the use of mobile phones for digital payments, with an estimated \$48.90 billion in transactions in this area. Digital commerce stands as one of the market's largest sectors, with an estimated \$24.96 billion in transactions in the same year, accounting for two-thirds of the market and 98% of the user base. (Figure N°02)

Fig N° 04: Evolution of digital payments 2019-2023



Source:)Intelligence(

The emergence of digital banking in Saudi Arabia is due to the following reasons: (statista)

- **Customer preferences:** Clients in Saudi Arabia are increasingly oriented towards digital banking services because of their easy access, ease of use, low cost and time savings. Young people in particular are moving towards these services with a view to creating user-friendly platforms for settling their financial transactions.
- **Trends in the market:** One of the dominant trends in Saudi digital banking is the rapid adoption of mobile banking applications, where customers use their smartphones to access banking services, transaction and accounts. Innovative financial technology solutions, digital payment methods for personal services, enhanced customer experience, and increased competitiveness drive the growth of the digital banking market.
- **Special domestic conditions:** Saudi Arabia is diversifying the economy and promoting digital transformation within the framework of Vision 2030. The government is encouraging the formation of a cash-free society, raising Internet and smartphone access levels and thus creating an environment conducive to the growth of digital banking services. The Kingdom's regulatory environment is also seeking to develop regulations and principles that will ensure the stability of digital banking transactions. This will enhance client confidence and encourage them to adopt digital banking services.
- **Key macroeconomic factors:** the rising youth population, increased access to the Internet, and the use of smartphones are reviving the market for digital banking services, as well as significant investment in digital infrastructure and technology, which have contributed to the development of the digital banking market. Competition between traditional banks and digital banks has had a clear effect on the revitalization of digital banking services.

4. CONCLUSION

The rapid development of financial technology and the emergence of various modern technologies have contributed to the proliferation of digital banks, which have the great potential to reach a broad base of clients and enable them to have full banking services at a high level of confidentiality and safety at a low cost. Saudi Arabia is one of the leading financial technology countries. It is also seeking to activate various modern technologies in order to achieve its digital transformation.

Results of the study

- ✓ Digital financial inclusion includes the inclusion of those excluded from the formal financial system and their access to financial services using mobile phones and various digital devices.
- ✓ Digital banks provide banking services through digital platforms and channels, which distinguishes them from electronic banks.
- ✓ Digital banks are one of the most important digital financial enablers, as evidenced by the high demand for digital payments and the significant use of mobile phones.
- ✓ Given the importance of digital banks and their ability to attract a wide cross-section of international clients, Saudi Arabia has activated them in the financial banking sector by granting a license to three digital banks, including one in accordance with the principles of Islamic law.
- ✓ The competent Saudi authorities have adopted various procedures and measures to make the experience of digital banks successful. In addition, they have avoided the risks that might arise from applying them. They have been subjected to the various precautionary measures to which ordinary banks in the Saudi financial sector are subject.

Recommendations

- ✓ Innovative financial techniques, including digital banks, have proved to be capable of attracting a wide cross-section of society. Therefore, they must be activated and revitalized by providing the right environment for their activity, namely, infrastructure, regulations and legislation, which form the basis for their success.
- ✓ The countries on the path to growth must work to support advanced technology and modern financial technologies in order to catch up with civilization, which is far behind.
- ✓ We must promote cultural awareness of the significance of digital technology and its primary role in supporting economic growth.

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