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THE ROLE OF PRIVATE BANKS IN PROMOTING FINANCIAL INCLUSION IN IRAQ: THE IRAQI NATIONAL BANK AS A CASE STUDY

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ABSTRACT
This research aims to shed light on the role that private banks play in promoting financial inclusion in Iraq, with the National Bank of Iraq as a case study. The importance of the study lies in the key element of financial inclusion in bringing about economic and social development, through the integration of groups not covered by the formal financial system. As a matter of fact, the research delved into the most prominent financial and banking services provided by the National Bank and the extent of its contribution to reaching out to marginalized groups and expanding the base of those dealing with the banking sector, in addition to the challenges facing private banks in this area. It is worth noting that the study brought to light that the National Bank of Iraq played a growing role in building up banking culture, paving the way for the opening of accounts, and providing accessible electronic services. However, more organizational and technical support is called for to build upon this role. All things considered, the findings point toward the necessity of coordinated efforts to bridge the gap between financial institutions and underserved populations.

Keywords: Financial Inclusion, Private Banks, Iraqi National Bank, Banking Services, Economic Development, Iraq.

RESEARCH METHODOLOGY

INTRODUCTION

This research delves into the impact of applying the concept of comprehensive banks to enhance financial inclusion in Iraq. We examine the case of the Iraqi National Bank, which, to all intents and purposes, represents an important sample of the private banking sector in Iraq, it bears witness to the increasing trend towards adopting the concept of comprehensive banking as a strategy to improve the levels of financial inclusion. In light of this information, this analysis sets out to measure the relationship between the comprehensive banks in their different dimensions and the financial coverage with its various indicators in the Iraqi context.

RESEARCH PROBLEM:

Despite efforts to expand financial inclusion in Iraq, a large proportion of the population remains outside the formal financial system, limiting opportunities for economic and social development. The fact of the matter is, this problem gives rise to questions about the extent to which private banks, especially the Iraqi National Bank, have contributed to promoting financial inclusion by virtue of providing accessible and comprehensive banking services to all segments of society. In view of the foregoing, the problem can be set forth as follows:
To what extent do private banks, especially the National Bank of Iraq, contribute to increasing financial inclusion in Iraq? What challenges do they come up against in this area?

RESEARCH HYPOTHESIS

The research puts forward the assumption that NCB actively contributes to financial inclusion by providing digital financial services and facilitating the opening of bank accounts and reaching out to marginalized groups. Be that as it may, it comes up against organizational and technical challenges that stand in the way of the full achievement of the desired impact.

RESEARCH IMPORTANCE

The importance of research lies in:

1. Highlighting the important role that private banks play in achieving financial inclusion.
2. Focusing on the National Bank of Iraq as a practical model through which to evaluate the level of progress in this field.
3. Providing recommendations to contribute to the development of financial policies and improve banks' performance towards underserved groups.

RESEARCH OBJECTIVES

1. Understanding the concept of financial inclusion and its dimensions.
2. Analyzing the role of the National Bank of Iraq in promoting financial inclusion.
3. Statement of the challenges facing private banks in achieving financial inclusion.

RESEARCH METHODOLOGY

The methodology used: The descriptive analytical methodology, to analyze the reality of financial inclusion in Iraq and evaluate the role of the National Bank of Iraq in this field.

RESEARCH STRUCTURE:
Research methodology
Research variables
The current study has two main variables under scrutiny:
Independent Variable – Universal Banking, measured through the following dimensions:
Diversification of funding sources
Diversification in investment fields
Diversification by entering non-banking areas (providing innovative financial activities)

Dependent Variable – Financial Inclusion, measured through the following dimensions:

1) Access to financial services
2) Use of financial services
3) Quality of financial services

2.2 Research Sample
The research sample consists of National Iraqi Bank.
This bank was selected based on the following criteria:

- Adoption of universal banking strategies to varying degrees
- Size of assets and deposits
- Branch network spread across different Iraqi provinces
- Availability of the required data for the specified time period.

C-Time Period
The study covers the period from 2019 to 2023, in order to track the development of universal banking strategies and financial inclusion indicators during a time of significant economic and financial changes in Iraq.
D- Data Sources
Data was collected from the following sources:

- Annual reports of the banks under study

- Statistical bulletins of the Central Bank of Iraq
- Global Financial Inclusion Index reports (Global Findex)
- Data from the Iraq Stock Exchange

E- Indicators Used to Measure the Research Variables

1. Indicators for Measuring Universal Banking (Independent Variable):

A. Diversification of Funding Sources:

- Ratio of various funding sources (deposits, bonds, interbank loans, etc.)
- Deposit diversification rate (current, savings, time deposits)
- Ratio of long-term deposits to total deposits
- Ratio of financing from international institutions

B. Diversification in Investment Fields:

- Ratio of diversified investment portfolio to total assets
- Distribution of the investment portfolio by economic sector
- Loan diversification rate by sector (industrial, commercial, agricultural, service, etc.)
- Ratio of investments in diversified securities

C. Diversification by Entering Non-Banking Areas (Innovative Financial Activities):

- Number of innovative financial services provided
- Volume of financing provided to small and medium enterprises
- Ratio of investment in financial technology (Fintech)
- Extent of Islamic finance services provided
- Extent of bancassurance services provided

2. Indicators for Measuring Financial Inclusion (Dependent Variable):

1. Access to Financial Services:

- Number of bank branches per 100,000 adults
- Number of ATMs per 100,000 adults
- Percentage of population with a bank branch within 5 km
- Coverage ratio of electronic banking services
- Number of point-of-sale (POS) devices per 100,000 adults

This indicator is the density of electronic devices that allow customers to carry out financial transactions using bank cards or digital wallets when purchasing goods and services, including electronic payment devices in stores and restaurants, mobile payment outlets, and accounting-integrated payment systems in large businesses. In the grand scheme of things, this indicator stands as a vital measure of the development of the electronic payments infrastructure in society. The higher the number of points relative to the population, the greater the individual's access to electronic payment services and the lower the reliance on cash, which brings about financial inclusion by broadening access to official financial services, facilitating financial transactions in a safe and expeditious manner, bringing about financial transparency, and drawing wider segments of society into the financial system. This indicator is arrived at by dividing the total number of point of sale devices available in the country by the adult population and multiplying the output by 100,000 to arrive at the rate per 100,000 adult persons, thus facilitating comparison between countries and keeping track of the development in levels of financial inclusion.

2. Use of Financial Services:

- Percentage of adults with bank accounts
- Rate of credit and debit card usage
- Percentage of mobile banking service users
- Percentage of small and medium enterprises receiving bank financing
- Rate of money transfer service usage

3. Quality of Financial Services:

- Customer satisfaction level with banking services
- Speed of banking transaction execution
- Cost of banking services (fees and commissions)
- Suitability of financial products to the needs of different customer segments
- Effectiveness of customer protection mechanisms and complaint resolution

F- Statistical Methods and Econometric Models Used

The following methods and models were used:

- Multiple Regression Analysis
- Structural Equation Modeling (SEM)
- Canonical Correlation Analysis
- Granger Causality Test
- Panel Data Analysis

3. The Concept of Financial Inclusion

The subject of financial inclusion has recently received wide attention from writers and researchers in financial and economic affairs around the world, because it takes in various aspects such as financial institutions and economic units. It has been of great importance by policy makers, international organizations and central banks to bring about significant economic and social goals (Aziz & Al-nuaimi, 2022, p. 5). As it happens, the term financial inclusion, which differs from the term financial exclusion, first saw the light of day in 1993 in a British study on financial services in the South East of England, which looked into the impact of bank branch closures on the access of residents in the region to financial services, and during the 1990s many difficulties faced by members of the community to access banking and non-banking services (Ghabash, 2022, p. 3). Certain client segments may find themselves shut out from getting their hands on essential financial services in an appropriate manner, a phenomenon known as financial exclusion.(Ghoneim et al., 2023, p. 564).

In 1999, the term financial inclusion was first put to use more broadly to describe the determinants of individual access to available financial services. It is worth pointing out here the distinction between the need to voluntarily give up access to financial services, and the inability to own products and services due to lack of demand or for ideological and cultural reasons (Dhef, 2020, p. 474). Following 2003, a majority of nations set out to put in place financial inclusion strategies, with Britain and Malaysia at the forefront. This brought forth successful and groundbreaking approaches to take financial inclusiona step up while ramping up focus in this domain, subsequently giving rise to multiple successful initiatives (Chakrabarty, 2011, p. 3).

After the outbreak of the global financial crisis at the end of 2008, the international community's interest in financial inclusion went up, and the global trend towards financial inclusion picked up steam, through the adoption of policies and measures by national monetary authorities aimed at promoting and facilitating access to financial services. The International Bank has put forward financial inclusion as one of the main pillars of its economic and financial development agenda. In 2013, the World Bank Group set up a global program to capitalize on the spirit of innovation through universal access to services (Boutlala et al., 2020, p. 145). In light of these facts, a program was also set up with the goal of achieving financial inclusion by way of global institutions, most notably the Consultative Group to Assist the Poor and the International Finance Corporation (McCreod, 2021, p. 9). The World Bank kept on launching many innovations for the provision of financial services and to expand the application of the concept as a more sophisticated and ambitious integrated financial system. The World Bank has called attention to all Governments to the need for its application (Abdullah, 2016, p. 15). On the whole, financial inclusion rests on six core elements of bank account, savings and safety, payment, appropriate credit and financial advice, as in Figure 1.

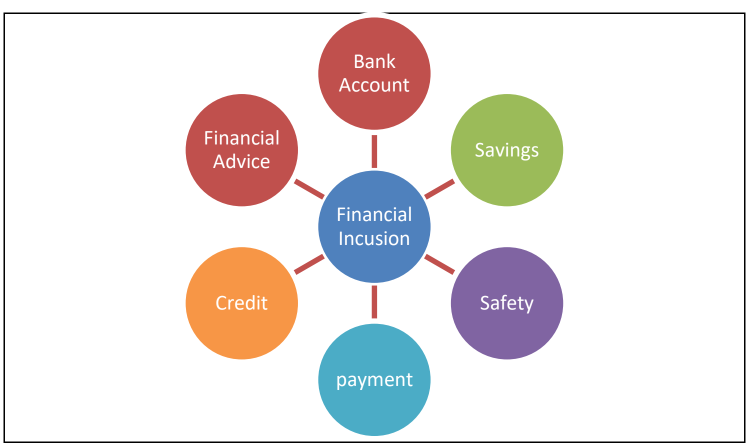

Figure 1: Financial inclusion elements
Source: G R, Halagundegoda & Rakesh, E & Kumar, C. (2015). Financial Inclusion: A Development Strategy for India – A Review. 8.

1.3 Importance of financial inclusion

The importance of enhancing financial inclusion levels and access to financial services will give rise to a positive impact on the economic and political environment as well as play a key role in mitigating the risk levels of financial institutions and the financial system in general. The effects of increasing financial inclusion levels can be set out in the following main areas: (Hussein & Laftah, 2019, p. 5).

Strengthening economic development efforts: Several applied studies conducted by the World Bank Group have shed light on a correlation between levels of financial inclusion and levels of economic growth. The depth of the spread and use of financial services is associated with levels of social justice in societies, as well as a positive impact on labor markets.

Enhancing the stability of the financial system: Increasing the use of financial services by the population will certainly contribute to the stability of the financial system. To clarify, further use of the formal financial system will diversify the portfolio of deposits with banks and financial institutions, while cutting down their concentration levels, and reducing the risks of these institutions. This diversification also enhances the stability of the economic system of States, as the major depositors are the first to withdraw from the formal financial system in any emergency (Naama & Hassan, 2018, p. 31).

Enhancing individuals' ability to integrate and contribute to their societies: Studies looking at the benefit of expanding financial inclusion at the individual level have shown that improving their ability to tap into the financial system will enhance their ability to start their own businesses, invest in education, as well as improve their ability to manage their financial risks and absorb the shocks associated with financial changes.

Automating the financial system: Expanding the spread and increasing utilization rates of financial services calls for more automation of these services, attracting more users with the technological revolution in telecommunications and electronics that the world is going through during the 21st century (Hussein & Laftah, 2019: 5).

Attracting investors from world markets.

Increasing the level of trade opportunities and development.

Reduced reliance on cash and costs and increased conversion to electronic payment (Khalid et al., p. 337).

Ease the financial system and reduce the cost of capital.

Growth and diversification of funding sources.

Providing a safe place for future savings (Mohamed, 2019, p. 3).

Recognizing the importance of financial inclusion both in achieving the goals of inclusive economic development and in combating poverty, this has contributed to increasing international attention by focusing on policies and initiatives. Most of the economic and financial literature has taken as its interpretation of the mechanisms for transferring the impact of financial inclusion on poverty, which it has mostly assumed positively, as channels for transferring the impact. The increase in financial inclusion levels contributes to the impact on poverty, as studies have indicated a one percent increase in the proliferation of active ATMs, which will contribute to a rise in the gross domestic product (GDP) by (0082,), which will positively reflect on the reduction In the level of poverty and the improvement of the standard of living, through the inclusion of many segments of society. The increase in financial inclusion also constitutes access to financial services for low-income people and small businesses, thus promoting economic growth, as increasing the opportunity for small-income enterprises and low-income families to have a positive impact on economic growth, through finding the value of this effect of indirect small businesses on human development indicators such as education, health and reducing income inequality and poverty. In the same vein, most international experiences put emphasis on the rapid capacity of economic growth to reduce poverty, as reducing poverty often requires economic resources that cannot be obtained without sustained and satisfactory economic growth rates. Most studies have borne out that countries with moderate and rapid growth rates are able to reduce poverty (Al-Khattab, 2024, 177).

1.3 Principles of financial inclusion

G20 leaders put forward nine principles for innovation-based financial investment at the Toronto summit in June 2010, and both countries and official standard-setting organizations are drawing on these concepts in their national plans for financial inclusion. It casts highlight on access to financial services and improving people's access to financial services, in the context of bringing about security and peace through contemporary financial developments in the name of "access to financial services". With a view to improving access for some (2.2) billion people around the world, the G-20 has agreed on a set of principles and recommendations to improve full access to financial services. These principles seek to put into practice laws that allow the development of a regulatory framework that will help provide all segments of society with full access to sophisticated financial services (Sheikh, 2022, p. 31). Principles of financial inclusion have been set up with an eye to implementing policies that contribute to providing an organizational environment that

helps to access banking and financial services for all members of society. These principles are as follows: (Reilly, 2017, p. 1).
Leadership: Broad government cooperation brings about universal access to services to reduce poverty.
Diversity: It is applied through the adoption of policies that promote and encourage competition while providing appropriate incentives and incentives for the provision of diversified and affordable services such as deposit, credit, transfer and insurance at competitive prices, given the many and diverse providers.
Development: Take into account the constraints and challenges of infrastructure and use of the latest technological and institutional tools for accessing financial services.
Protection: Comprehensive understanding of consumer protection and working within regulations widely recognized by States, service providers and customers (Dhef, 2020, p. 477).
Empowerment: Build up awareness of financial services among members of the community to help them benefit from financial services on a large scale.
Cooperation: Set up a clear framework for government responsibility and accountability for the financial services industry, aimed at strengthening private-public cooperation and consultation (Al-Hadi & Ashraf, 2022, p. 10).
Knowledge: Use of improved databases for performance appraisal, evidence-based policy, delivery progress and other tools.
Proportionality: Putting in place policy and regulatory frameworks to reduce risks and enhance returns on sophisticated financial products. This can be done by identifying gaps and obstacles in existing laws and comparing them with procedures and policies adopted for the purpose of suiting procedures with regulations and laws.
Framework: When setting up a regulatory framework for universal access, important considerations representing local conditions and necessary international standards must be taken into account to maintain a competitive environment, in addition to a flexible regulatory framework based on low risk. A regulatory framework is in place that represents steps to be taken that can increase returns and reduce risks.
In 2020, a set of guidelines for improving financial inclusion policies was brought out in four sets (Mohamed & Rahayleh, 2021, p. 5).
Ensure a flexible digital infrastructure: takes in infrastructure development, expanded access and competitiveness while promoting financial digital services and products, tailored to actual needs and appropriate costs, combating money-laundering or illegal, illegal financing, providing accurate data and adopting initiatives that further improve financial inclusion.
Responsible policy provision: takes in the provision of accurate data, easier access to service, and policies that improve financial inclusion and integration into the national strategy.
Support inclusive growth: through the provision of a comprehensive regulatory framework for digital services, support for administrative and legal reforms, equality, the digital framework for the private and public sector, and support for financial culture, technology use and consumer protection.
Supporting digital knowledge and enhancing capabilities and capabilities: Takes in data protection, customer support, and bringing about a digital culture that paves the way for seamless access while looking after customer protection and catering to their needs (Al-Waleed, 2020, p. 3).
From the above, we can see it clear that the principles on which financial inclusion rests are based on leadership that draws on diversity, cooperation, protection, and empowerment to fully simplify access to financial services based on the instructions and laws that give an opportunity for organizational development that facilitates banking services and makes them accessible to all segments of society.
Impediments to having access to financial service arise from both demand-side and supply-side reasons (Subbarao, 2009, p. 3). Not only this but alsonumerous stumbling blocks to financial inclusion come into play here. These include i) a shortage of financial resources, ii) steep service charges, iii) substantial distance from financial service providers, and vi) meager income levels (Ulwodi & Muriu, 2017, p.13). The most significant constraints can be accounted for as follows: (Al-Sayegh & Jamil, 2024, p. 120)

Insufficient funds (30%).
Family ownership of the official account (25%).
Service costs increase by 23%.
Distance (20%).
Lack of documentation (18%).
Lack of confidence (13%).
Religious reasons (5%).

A summary of these obstacles can be presented as shown in the figure (2).

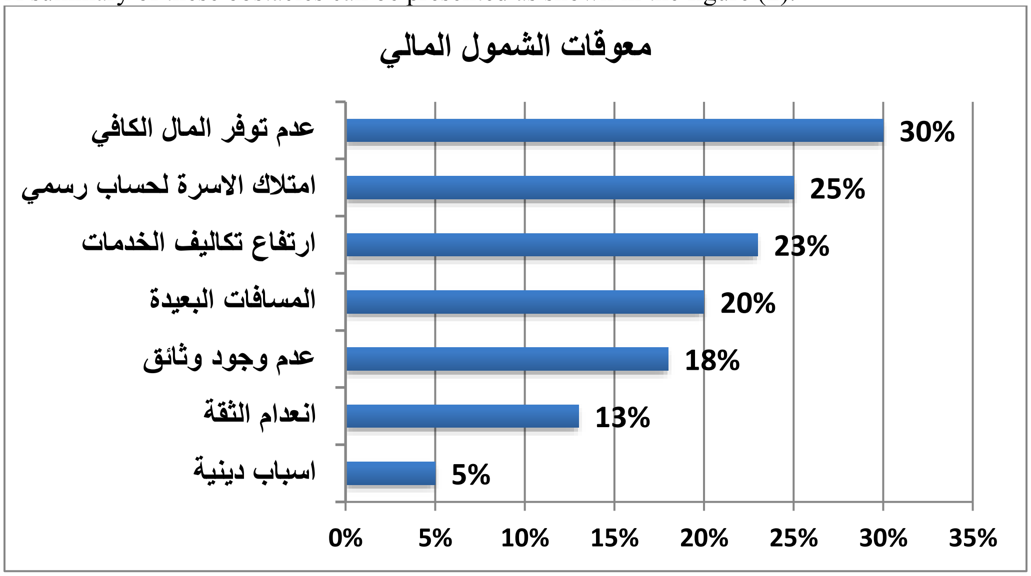

Figure 2: Obstacles to financial inclusion
Source: Al-Saegh, Nemir, Jamil, Soha Nashwan (2024), The Contribution of Financial Digitization Variables to the Quality of Financial Inclusion: An Analyti'al Study of Arab Financial Systems, Leading Business Journal, 5(1).

Chapter 4: The Reality of Universal Banks in Iraq: An Analysis of the Research Sample
Overview of the banks in question
Before taking up the standard analysis, we present an overview of the three banks in question in terms of their adoption of the concept of universal banking:
Over the past two decades, the Iraqi banking sector has gone through some serious changes in its structure and operating procedures, moving towards scaffolding the role of private banks and taking on board the concepts of comprehensive banking. Private banks are one of the pillars of the Iraqi financial system and have played a pivotal role in bringing about financial stability, diversifying banking services and expanding financial inclusion. In this context, the three banks, the Ashur International Investment Bank, the National Bank of Iraq, and the Baghdad National Bank, stand out as prominent examples of private banks in Iraq and bear witness to the development of this sector and its challenges and future prospects.
b. Concept and application of universal banks in Iraq
Universal Banking refers to banks that provide a wide variety of financial services under one roof, bypassing the traditional role of banks in accepting deposits and granting loans. These services include direct investment activities, investment banking, insurance services, asset management and financial advisory services.
In the Iraqi context, private banks have gradually begun to adopt the concept of comprehensive banking over the past decade, driven by several factors, the most important of which are:

- Increased competition.
- Technological Development.
- Regulatory changes.
- Need to diversify sources of income.

National Bank of Iraq: A long march towards banking modernization
The National Bank of Iraq was established in 1995 as one of the first private banks in Iraq with an initial capital of 50 billion Iraqi dinars. The bank began as a traditional commercial bank focused on basic banking services, and faced significant challenges during the period of economic sanctions and instability after 2003.
Comprehensive Banking Strategy at the Iraqi National Bank
The National Bank's comprehensive banking strategy is based on the following aspects:
1. Diversity in funding sources.

2. Diversification in investment.
3. Diversification into non-banking areas.

Impact of Comprehensive Banking Strategy on Iraqi National Bank

The National Bank has seen improved asset growth, improved profitability, diversified income sources, and improved asset quality, but at a slower pace than Ashur Bank.

Private banks face several major challenges in applying the comprehensive banking model, most notably:

1. Limited specialized banking expertise.
2. Weak technological infrastructure.
3. Security challenges in some provinces.
4. strong competition from government banks.

Analysis of overall bank indicators in the research sample

1. Diversity in sources of funding

Clarifying the nature of the long-term deposit ratio

The proportion of long-term deposits listed in the table is a proportion of total deposits and not of total sources of financing. For example, in the case of the Bank of Assyria for 2019, deposits (78%) comprise total sources of financing, and of these, long-term deposits (25%) comprise total deposits.

Thus, there is no conflict in total ratios because:

- A- Ratio of deposits to total sources of finance: The ratio of bank dependence on deposits as a source of finance is measured.
- B- Long-term deposit ratio: Measures the ratio of future deposits to total deposits, and reflects the stability of the deposit base.
- C- Proportion of funding from international institutions: Measures the proportion of external funding from total sources of funding.

Criteria for determining degree of diversity in funding sources

The degree of diversity in funding sources has been determined using a composite criterion based on the three indicators listed in the table, which can be illustrated as follows:

1. Low grade: Granted when:
   - A- Deposit dependency is high (more than 80%)
   - B- The ratio of long-term deposits is low (less than 25%)
   - C- The proportion of funding from international institutions is low (less than 5%)
2. Intermediate: Awarded when:
   - A- The deposit dependency ratio is between (70% and 80%).
   - B- The proportion of long-term deposits is between (25% and 35%).
   - C- The proportion of funding from international institutions is between 5% and 10%.
3. High Grade: Granted when:
   - A- Deposit dependency is less than 70%.
   - B- The proportion of long-term deposits is more than 35%.
   - C- More than 10% of the funding is from international institutions.

The implementation of this standard can be made out in the table, as the Baghdad Bank moved from medium to high in 2021 when its reliance on deposits dropped below 70% and the funding from international institutions went up to 10%.

This composite criterion better measures the extent to which a bank branches out its funding sources and does not overly rely on one type of funding source, thus stepping up its financial stability and improving its risk management capacity.

Equations for measuring diversity in funding sources

Clarification	Equation	Indicator

Measures the bank's dependence on deposits as a source of funding.	(Total deposits ÷ Total funding sources) x 100%	Deposits to total funding sources ratio
Measures the proportion of time deposits to total deposits, and reflects the stability of the deposit base.	(Long-term deposits ÷ Total deposits) × 100%	Long-term deposit ratio
Measures the percentage of external financing to total financing sources	(Funding from international institutions ÷ Total funding sources) x 100%	Percentage of funding from international institutions
Where: $w_1 = 0.5$, $w_2 = 0.3$, $w_3 = 0.2$	(Composite Diversity Index= w_1 × (100% -(Deposit ratio)+ w_2 ×(Long-term deposit ratio)+ w_3 × (International financing ratio) Explain the meaning of symbols: $w_1 = 0.5$: The weight of the first component (100% - deposits ratio) in the index, representing 50% of the index value. $w_2 = 0.3$: The weight of the second component (the proportion of long-term deposits) in the index, representing 30% of the index value. $w_3 = 0.2$: The weight of the third component (international financing ratio) in the index, representing 20% of the index value.	Composite Diversity Index

Diversity rating criteria:

Standard	Degree of diversity
Composite Diversity Index score less than 20%	low
Composite Diversity Index score between 20% and 30%%	Medium
Composite Diversity Index score of more than 30%	High

Table (1): Degree of Diversity in funding sources for the National Bank(2019-2023)

The bank	year	Deposits to total funding sources ratio	Long-term deposit ratio	Percentage of funding from international institutions	Degree of diversity in funding sources
National Bank	2019	85%	20%	2%	low
	2020	84%	21%	2%	low
	2021	83%	21%	3%	low

The bank	year	Deposits to total funding sources ratio	Long-term deposit ratio	Percentage of funding from international institutions	Degree of diversity in funding sources
	2022	82%	22%	3%	low
	2023	80%	23%	4%	low

Source: Analysis of bank data using E-Views 13 based on Iraq Stock Exchange data

The timeline analysis of National Bank of Iraq data for the period (2019-2023) shows important trends in diversifying funding sources:

Although there has been a slight improvement in diversity indicators, the bank still leans heavily on deposits as its main source of funding (85% in 2019, down to 80% in 2023). Funding from international institutions fell short at just 4% in 2023, keeping the diversity of funding sources low throughout the research. As for the proportion of long-term deposits, it has picked up only slightly from 20% in 2019 to 23% in 2023, a slight improvement that points to a weakening of the bank's ability to draw in high-stability deposits, increasing liquidity risk and adversely affecting its long-term financing capacity. This low proportion of long-term deposits bears witness to the limitations of the Bank's strategies to bring about customers to deposit for longer periods, which holds back the Bank's ability to put forward long-term financing for investment projects.

2.Diversification in the field of investment

Indicator	Equation	Clarification
Ratio of diversified investment portfolio to total assets	**(Total diversified investments / Total assets) × 100%**	Measures the size of diversified investments relative to the bank's total assets.
Loan diversification rate by sectors	$1-\sum_{i=1}^{n}(w_i)^2$	Measures the distribution of the loan portfolio across various economic sectors, where w_i is the proportion of loans granted to the sector.
Ratio of investments in securities	**(Total investments in securities / Total assets) × 100%**	Measures the size of the bank's investments in securities markets.
Degree of diversification in investment domain	**Diversified portfolio ratio × w1 + Loan diversification rate × w2 + Investments in securities ratio × w3**	A composite index that combines the previous three indicators with specific weights.

classification degree Diversification:

- **A)** Below (40%) low.
- **B)** 40% - 60%)Medium.
- **C)** Above (60%) High.

Table (2): Diversification in the field of investment(2019-2023)

The bank	year	Diversified investment portfolio to total assets ratio	Loan diversification rate by sector	percentage of investments in securities	Degree of diversification in the field of investment
National Bank	2019	32%	0.55	12%	low
	2020	33%	0.56	13%	low
	2021	34%	0.57	14%	low
	2022	35%	0.58	15%	low
	2023	37%	0.60	16%	low

Source: Analysis of bank data using E-Views 13 based on Iraq Stock Exchange data.

Analysis of the investment diversification data of the National Bank of Iraq: During the period (2019-2023) shows the following developments:

Although there has been little improvement in diversification indicators, the Bank still suffers from a lower degree of diversification vis-à-vis other banks. The miscellaneous portfolio ratio rose from 32% in 2019 to just 37% in 2023, the rate of loan diversification from 0.55 to 0.60, and the share of investments in securities from 12% to 16%. The degree of investment diversification remained low throughout the research, indicating the limited diversification strategies of the Bank.

3.Diversification into non-banking areas (innovative financing activities)

Indicator	Equation	clarification
Number of innovative financial services	$X_1 = \sum_{i=1}^{n} \text{خدمة}_i$	The set of new financial services provided by the bank outside the scope of traditional services
Financing ratio for small and medium enterprises	X_2 = (Investment in fintech / Total assets) × 100%	Percentage of loans directed to the small and medium-sized enterprises sector out of total financing
FinTech Investment Rate	X_3 = Investment in fintech / Total assets × 100%	Percentage of investment in financial technology companies and solutions to total assets
Providing bancassurance services	X4 = { 1 if the bank provides bancassurance services; 0 if the bank does not provide bancassurance services }	A binary variable indicating whether or not the bank provides bancassurance services.
Degree of diversification in innovative financing activities	$\text{DTI} = w_1 \times \frac{X_1}{X_{1\max}} + w_2 \times \frac{X_2}{X_{2\max}} + w_3 \times \frac{X_3}{X_{3\max}} + w_4 \times X_4$	A composite index that combines the four indices with weightings, where:$X_{i\max}$It is the maximum value of the index.

Criteria for Classifying the Degree of Diversification in Innovative Financing Activities:

- Below 0.4: Low.
- Between 0.4 and 0.7: Medium.
- Above0.7: High.

Where:

W_1, w_2, w_3, w_4 are the weighting coefficients for the four indicators, and their sum equals 1.

The quantitative indicators (X_1, X_2, X_3) are calibrated relative to the maximum value within the sample of banks.

Table (3): Diversification into non-banking areas (innovative financing activities) (2019-2023)

The bank	year	Number of innovative financial services	Financing ratio for small and medium enterprises	FinTech Investment Rate	Providing bancassurance services	Degree of diversification in innovative financing activities
National Bank	2019	4	6%	1.5%	no	low
	2020	5	7%	1.8%	no	low
	2021	5	7%	2.0%	no	low
	2022	6	8%	2.2%	no	low
	2023	7	9%	2.5%	no	low

Source: Analysis of bank data using E-Views 13 based on Iraq Stock Exchange data.

Analysis of diversification data in innovative financing activities of the National Bank of Iraq (NCB) during the period 2019-2023 reveals important trends:

Although there has been some modest improvement in some indicators, the Bank is still falling behind in providing innovative financing activities vis-à-vis other banks. The number of innovative financing services has gone up from four in 2019 to just seven in 2023, the proportion of financing for SMEs from 6% to 9%, and the proportion of investment in financial technology from 1.5% to 2.5%. The Bank still does not put forward bank insurance services until 2023.

4.1 The reality of financial inclusion in Iraq: an analysis of the research sample

I will reanalyze the data and prepare tables with the data years (2019-2023) in mind, and provide a detailed explanation of the analysis below the tables.

The reality of financial inclusion in Iraq: an analysis of a research sample

Analysis of financial inclusion indicators in the banks in question.

1.Access to financial services

Indicator	Equation	Clarification
Number of branches per 100,000 people	X_1 = (Total number of bank branches / Population in the bank's service area) × 100,000	Measures the density of bank branches relative to the population.
Number of ATMs per 100,000 people	X_2 = (Total number of ATMs / Population in the bank's service area) × 100,000	Measures the prevalence of ATMs relative to the population.
E-banking coverage rate	X_3 = (Number of users of electronic services / Total number of bank customers) × 100%	Measures the percentage of customers who use electronic banking services.
Degree of access to financial services	$\mathbf{DFA = w_1 \times \frac{X_1}{X_{1ref}} + w_2 \times \frac{X_2}{X_{2ref}} + w_3 \times \frac{X_3}{100\%}}$	A composite index that combines the three indices with weightings.

Financial Services Access Rating Criteria:

- **Below (0.5) low.**
- **(0.7 – 0.5) Medium.**
- **Above 0.7 high.**

Where:

W_1, w_2, w_3 are the weighted weights of the three indices, totaling 1.

X_1"ref" is the reference value for the number of branches per 100,000 people.
X_2 "ref" is the reference value of the number of ATMs per 100,000 people.

Table (4): Analysis of Financial Services Access Indicators at the National Bank of Iraq – Case Study (2019–2023).

The bank	year	Number of branches per 100,000 people	Number of ATMs per 100,000 people	E-banking coverage rate	Degree of access to financial services
National Bank	2019	0.35	1.5	45%	low
	2020	0.38	1.7	50%	low
	2021	0.40	1.9	53%	Medium
	2022	0.42	2.1	58%	Medium
	2023	0.45	2.4	62%	Medium

Source: Analysis of bank data using E-Views 13 based on Iraq Stock Exchange data. The time-analysis of NCB financial services access data for the period (2019-2023) shows important trends:

A- The bank recorded an improvement in access indicators, with the number of branches rising from 0.35 to 0.45 per 100,000 people, and the number of ATMs increasing from 1.5 to 2.4 per 100,000 people.

B- The coverage rate of e-banking services has improved from 45% to 62%, but is still lower than that of other banks.

2.Use of financial services

Indicator	Equation	clarification
Percentage of adults with accounts	$\mathbf{X_1}$ = (Number of clients who have bank accounts / Total number of residents in the bank's operating area) × 100%	Measures the prevalence of bank accounts among the potential adult population.
Credit and debit card usage rate	$\mathbf{X_2}$ = (Number of clients using credit and debit cards / Total number of bank clients) × 100%	Measures the extent to which customers use bank cards in financial transactions.
Mobile banking usage rate	$\mathbf{X_3}$ = (Number of clients using mobile banking services / Total number of bank clients) × 100%	Measures customer reliance on mobile digital banking services
Degree of use of financial services	$\mathbf{DFU = w_1 \times \frac{X_1}{X_{1ref}} + w_2 \times \frac{X_2}{X_{2ref}} + w_3 \times \frac{X_3}{X_{3ref}}}$	A composite index that combines the three indices with weightings.

Criteria for Classifying the Degree of Financial Services Usage:

- Below (0.4): Low
- (0.4 – 0.6): Medium
- Above (0.6): High

Where:

$\mathbf{w_1, w_2, w_3}$ are the weighted coefficients of the three indicators, and their sum equals 1. $\mathbf{X_1\_ref, X_2\_ref, X_3\_ref}$ are the target or benchmark reference values for each indicator.

Note: The equation can also be simplified using specific target percentages:

$\mathbf{DFU = w_1 \times X_1 / (50\%) + w_2 \times X_2 / (40\%) + w_3 \times X_3 / (35\%)}$

Where the denominators 50%, 40%, and 35% represent national or sectoral financial inclusion targets.

The bank	year	Percentage of adults with accounts (of totalcustomerspotential)	Credit and debit card usage rate	Mobile banking usage rate	Degree of use of financial services
National Bank	2019	20%	15%	6%	low
	2020	22%	17%	8%	low
	2021	23%	18%	10%	low
	2022	25%	20%	12%	low
	2023	28%	23%	16%	Medium

Source: Analysis of bank data using E-Views 13 based on Iraq Stock Exchange data.
The time analysis of the National Bank of Iraq financial services utilization data for the period (2019-2023) reveals important trends:

A- The Bank has made progress in indicators of use, with the proportion of adults with accounts rising from 20% to 28%, and the rate of card use increasing from 15% to 23%

B- Although telephone banking has improved from 6% to 16%, it is still the lowest in Iraq's national bank.

Possible factors behind the overall low utilization rates in Iraq may include: low financial awareness, limited confidence in the banking system, poor technological infrastructure, and a pervasive culture of monetary engagement. However, the continuing upward trend in all indicators points to a gradual improvement in the culture of use of formal financial services, especially with the marked increase in the use of electronic banking.

3.Quality of financial services

Indicator	The equation	clarification
Customer satisfaction level	**X_1 = Total customer satisfaction ratings / Number of responding customers**	Average customer satisfaction rating on a scale of (5) points
Average transaction execution speed	**X_2 = Total transaction execution time / Number of executed transactions**	Average time taken in minutes to complete banking transactions
Suitability of financial products	**X_3 = Qualitative classification based on expert evaluations and customer opinions**	Evaluating the suitability of the products offered to the needs of target customers
Financial Services Quality Score	**$DFQ = w_1 \times X_1 / 5 + w_2 \times X_{2\_ref} / X_2 + w_3 \times$ Standard qualitative evaluation score**	A composite index that combines the three indices with weightings.

Criteria for Classifying the Quality of Financial Services:
Less than (0.6): Low
(0.6 – 0.8): Medium
More than (0.8): High
Where:
w_1, w_2, w_3 are the weighting coefficients assigned to the three indicators, with a total sum of 1.
X_2ref is the ideal reference value for transaction speed (e.g., 5 minutes).
Note that in the equation for X_2, the reference value appears in the numerator, as transaction speed is inversely proportional to service quality.
Formula for Assessing the Suitability of Financial Products:
The suitability of financial products is evaluated based on a composite index derived from the following criteria:
Suitability Index =
$\alpha_1 \times$ Product Variety +
$\alpha_2 \times$ Ease of Understanding and Use +

α_3 × Meeting Financial Needs +
α_4 × Reasonableness of Cost
Where:
α_1, α_2, α_3, α_4 are weighting coefficients reflecting the importance of each criterion. Each criterion is evaluated on a unified scale (e.g., from 1 to 3). The final score is classified as: Low, Medium, or High.

Table (6)

Analysis of Financial Service Quality Indicators (2019–2023)

The bank	**year**	**Customer satisfaction level (out of 5)**	**Average transaction execution speed (in minutes)**	**The extent to which financial products meet customer needs** **ers**	**Financial Services Quality Score**
National Bank	2019	2.8	28	low	low
	2020	2.9	26	low	low
	2021	3.0	24	low	low
	2022	3.2	22	low	low
	2023	3.4	20	Medium	Medium

Source: Analysis of bank data using E-Views 13 based on Iraq Stock Exchange data.

The time-analysis of the National Bank of Iraq's financial services quality data for the period (2019-2023) shows important trends:

A- The bank improved customer satisfaction from 2.8 to 3.4 (from 5), but it remains the lowest in the National Bank of Iraq

B- The average speed of processing fell from 28 minutes to 20 minutes, an improvement of 29%, but it is still the slowest among banks.

T- The suitability of financial products for customer needs remained low until 2022, with a slight to moderate improvement in 2023.

Comparative analysis brings to light the Baghdad Bank's advantage in all indicators of financial services quality. The bank has the highest level of customer satisfaction (4.2 out of 5), the fastest transaction implementation rate (only 8 minutes), and the highest degree of financial products suited to the needs of customers. This excellence bears witness to an integrated strategy to improve the customer experience through investment in technology, product development, and staff training.

It is also noted that all banks have undergone improvements in quality indicators during the research period, pointing to increased awareness of the importance of the quality of financial services as a key factor in promoting financial inclusion. However, the National Bank falls behind in this area, which calls for a comprehensive review of its strategies to improve the quality of services and the experience of customers.

If we do a detailed time analysis of the three indicators (access, use, and quality) for the duration (2019-2023), we can muster up the following conclusions:

1. The National Bank of Iraq suffers from a relative delay in financial inclusion indicators, especially in the areas of the use and quality of financial services, with limited improvement in some indicators during the research period.
2. Indicators of access to financial services are improving faster than indicators of use, indicating a gap between the provision of financial infrastructure and the promotion of its use.
3. There is a clear trend towards digital transformation in the Iraqi banking sector, as evidenced by the marked improvement in the rates of coverage of electronic banking services and the utilization of telephone banking services.
4. Despite the marked improvement in all indicators, financial inclusion levels in Iraq are still low vis-à-vis international standards, especially in the field of using financial services. Only 42% of adults have accounts at the best banks (Bank of Baghdad).
5. The data show the importance of investing in financial technology and improving the quality of services as key factors to enhance financial inclusion, as evidenced by the relative success of the Baghdad Bank in increasing levels of utilization and satisfaction.

The analysis points to the need for comprehensive strategies that go beyond simply expanding access to financial services, to include enhancing financial awareness, building confidence in the banking system, and developing appropriate financial products for different segments of the population, in order to achieve higher levels of financial inclusion in Iraq.

4.2: Factors affecting the relationship between universal banks and financial inclusion

Through the analysis of bank data in question, several factors affecting the relationship between universal banks and financial inclusion were identified:

Supporting factors

1. Technological infrastructure: Results showed that the availability of advanced technological infrastructure boosts the overall banks' ability to achieve financial inclusion, with a strong correlation (0.78) between the level of technological infrastructure and the overall efficiency of banking in promoting financial inclusion.
2. Financial education: The results showed that the level of financial education of clients played an intermediate role in the relationship between universal banks and financial inclusion, with the trajectory factor of indirect influence through financial education (0.25).
3. Regulatory and regulatory framework: A supportive regulatory and regulatory framework has been found to enhance the ability of banks to adopt the concept of inclusive banking and achieve higher levels of financial inclusion.

b. Disabling factors

1. Security and political challenges: Unstable security and political conditions have adversely affected banks' ability to expand the concept of inclusive banking, especially in remote areas.
2. Low confidence in the banking system: The low confidence of large segments of Iraqi society in the banking system has been an impediment to financial inclusion, even with the availability of diverse banking services.
3. Limited financial awareness: The results showed that the low level of financial awareness among large segments of Iraqi society limited the effectiveness of banks' comprehensive strategies in promoting financial inclusion.

4.3 Challenges to Implementing Inclusive Banking and Promoting Financial Inclusion in Iraq

Despite the positive results of research on the relationship between comprehensive banking and financial inclusion, there are several challenges facing the application of this concept in Iraq, the most important of which are:

Challenges for banks

1. Limited capital: Some private banks have limited capital, limiting their ability to expand diverse financial services and invest in financial technology.
2. Lack of qualified banking staff to deal with modern concepts of inclusive banking and financial technology.
3. Competition with government banks: Government banks dominate a large share of the Iraqi banking market, limiting the ability of private banks to expand.

b. Environmental challenges

1. Poor infrastructure: especially in the area of communications and information technology, which hampers the provision of electronic banking services.
2. Unstable security conditions: In some areas, the ability of banks to expand geographically is limited.
3. Legislative and regulatory challenges: Slow modernization of legislative and regulatory frameworks in line with developments in inclusive banking and financial technology.

c. Customer-specific challenges

1. Monetary culture: The spread of a culture of monetarism and distrust of the banking system among large segments of society.
2. Relatively low income: large segments of the population, which limits their ability to access financial services.
3. Low financial awareness: Many groups of society, especially in rural and remote areas.

5. CONCLUSIONS AND RECOMMENDATIONS

1.5: Conclusions

1. "Financial inclusion in Iraq is still at a later stage than in the region, with a large proportion of the population lacking bank accounts or access to formal financial services."
2. Private banks, especially the National Bank of Iraq, are increasingly playing a role in increasing financial inclusion through their adoption of modern technologies, expansion of their electronic services, and simplification of account opening procedures.
3. Relying on digital banking services (such as apps, e-payments, automated teller exchanges, and Internet banking services) has helped reach new segments of society, especially young people.

4. NCB and other private banks face challenges such as weak digital infrastructure, limited financial awareness, and the absence of a clear regulatory framework to support sustainable financial inclusion.
5. There is still a gap in citizens' confidence in banking institutions, due to economic crises and previous administrative corruption, which negatively affects the demand for financial services.

2.5: Recommendations

1. The need to launch broad awareness-raising programs to educate citizens, particularly in rural and poor areas, about the importance and benefits of using banking services.
2. Support private banks to expand their digital services and ensure Internet coverage in all regions, thereby contributing to greater access to services.
3. Facilitate the opening of accounts and reduce official requirements, especially for low-income individuals and small business owners.
4. Strengthen the partnership between private banks and the Government in providing logistical, legislative and technical support, and link financial inclusion to national development plans.
5. Provide incentives (tax or legislative) to banks that achieve tangible results in increasing the number of new clients from categories not previously covered.
6. Establish national indicators to measure periodically the progress of banks in financial inclusion and link performance to central bank rewards or facilities.

REFERENCES

- Abdullah, S. (2016). Financial inclusion in Palestine. Palestine Economic Policy Research Institute (MAS), Jerusalem and Ramallah; Dar Al-Manthuma, Amman.
- Al-Hadi, K., & Ashraf, N. M. (2022). The impact of financial inclusion on achieving financial stability. Journal of Commercial Research, 44(4), Egypt.
- Al-Khattab, A. M. (2024). Measuring and analyzing the impact of selected financial inclusion indicators on poverty: A sample of developing countries (2005–2020). Al-Riyada Journal of Finance and Business, 5(1), College of Business Economics, Al-Nahrain University.
- Al-Sayegh, N. A., & Jameel, S. N. (2024). The contribution of financial digitization variables to the quality of financial inclusion: An analytical study of Arab financial systems. Al-Riyada Journal of Finance and Business, 5(1), College of Business Economics, Al-Nahrain University.
- Al-Waleed, T. (2020). Digital financial inclusion. Economic Studies, Arab Monetary Fund, (17), Abu Dhabi, United Arab Emirates.
- Aziz, A. A., & Al-Nuaimi, Z. A. (2022). The impact of financial depth on enhancing financial inclusion in some Arab countries. Tikrit Journal for Administrative and Economic Sciences, (57).
- Boutlala, M., et al. (2020). The reality and challenges of financial inclusion: Jordan and Algeria as models. Journal of Finance and Business Economics, 4(2), Institute of Economic and Commercial Sciences and Management Sciences, Abdelhafid Boulasouf University Center, Mila, Algeria.
- Chakrabarty, K. C. (2011). Financial inclusion and banks: Issues and perspectives. RBI Bulletin, November.
- Dhef, F. B. (2020). The reality and challenges of financial inclusion in Algeria. Journal of Business Administration and Economic Studies, 6(1), Algeria.
- Ghabash, I. Q. (2022). Financial inclusion and its role in poverty reduction in Bangladesh. The Iraqi Journal of Economic Sciences, (74), Iraq.
- Ghoneim, A. M., Shousha, A. A. M., & Shabana, M. M. M. (2023). Antecedents and consequences of financial exclusion: An applied study on SMEs in Damietta Governorate. The Scientific Journal for Financial and Commercial Studies and Research, 4(2), Faculty of Commerce, Damietta University.
- Halagundegowda, G. R., Rakesh, E., & Kumar, C. (2015). Financial inclusion: A development strategy for India – A review. [Unspecified Journal Title], 8.
- Hussein, S. A., & Laftah, R. A. (2019). Proposed mechanisms and policies to expand the base of financial inclusion towards limiting financial exclusion in Iraq. Journal of Al-Madina University College, (1).
- Khalid, S., Shahid, M., Irshad Bibi, N., Sarwar, T., Shah, A. H., & Niazi, N. K. (2018). A review of environmental contamination and health risk assessment of wastewater use for crop irrigation with a focus on low and high-income countries. [Unspecified Publication].
- McCreod, R. (2021). The reality of financial inclusion and the role of financial technology in enhancing it (Master’s thesis, Institute of Economic and Commercial Sciences, Mohamed Khider University of Biskra, Algeria).

- Mohamed, S., & Rahayleh, S. A. (2021). The state of financial inclusion in Arab countries and the role of fintech in its enhancement. Conference of Prince Abdel Qader University of Islamic Sciences.
- Mohamed, T. (2019). An analytical study of the necessities for advancing financial inclusion in Iraq. Journal of Accounting and Financial Studies, Fourth National Conference, Iraq.
- Naama, N. H., & Hassan, A. N. (2018). A financial inclusion measurement index in Iraq. In Proceedings of the Fourth Specialized Scientific Conference of the Technical Administrative College, Baghdad, Refereed Published Papers, Vol. 2.
- Reilly, F. K. (2017). Building your investment portfolio: A comprehensive guide to wealth creation. Hova African Journal of Multidisciplinary Research, 7(1).
- Sheikh, T. (2022). The role of financial inclusion in improving the quality of banking services: A case study of the National Bank of Algeria (Master's thesis, Ibn Khaldoun University, Algeria).
- Subbarao, D. (2009). Financial inclusion: Challenges and opportunities. Reserve Bank of India's Bankers Club, Kolkata, December 9.
- Ulwodi, D. W., & Muriu, P. W. (2017). Barriers of financial inclusion in Sub-Saharan Africa. Journal of Economics and Sustainable Development, 8(14).